

SOCIAL MEDIA USAGE FOR CIVIC ENGAGEMENT

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ABSTRACT

In the field of Information Systems, much is known about social media as an Information Technology artefact and its influence, offering various understandings of online human behaviour, particularly for business, psychology and sociology implications. Frequently, research on social media usage can be classified into internal (e.g. entertainment and satisfaction) and external factors (e.g. connection benefits). While these studies on motivations generated a clear link between internal and external factors for social media usage, they did not relate clearly the motivations to the contributions made in terms of civic engagement behaviour. Although there have been calls for research in understanding social media behaviour, its use for positive outcomes and public involvement in civic efforts, few investigations focused on how individuals use social media for addressing social issues. This research introduced a new insight into how social media is shaping the landscape of civic engagement through Facebook in two modes: civic expressions and civic actions.

This research examined online civic engagement with reference to the way activists speak, think, and act online in promoting public engagement to curb social issues and the level of civic efforts by individuals. The study focused on understanding the modes of online civic engagement behaviour in addressing the prevalent social problems; the key impetuses of online civic engagement behaviour; and their impact on satisfaction in life and virtual social skills at work. In the absence of defined metrics, this study developed and validated items to measure online civic engagement behaviour. This new construct sheds further light on how individuals use social media for civic engagement by differentiating similar forms of civic interaction. These aspects were researched using three methods: interviews, web analysis and surveys.

First, the content analysis of the interviews in Phase 1 revealed five modes of online civic effort: (1) collection of information, (2) publication of information, (3) dialogue, (4) coordination of action, and (5) lobbying decision makers. Three prevalent social problems were identified from the interviews: (1) crime; (2) disengagement from civic matters and moral values; and (3) quality of education. Similarly, these modes were present in the findings of the web analysis of the activists' social media sites in Phase 2. This allowed the research to proceed to develop new measures for online civic engagement behaviour in Phase 3. Two modes were discovered: civic expressions and civic actions.

The structural equation analysis on the 619 responses suggested that civic expressions intensified citizen's civic actions on Facebook (Phase 4). Moreover, certain trust (trust propensity, trust in social media, trust in institutions) and benefit factors (group incentives and reputation) were found to have a significant impact on the different civic modes. Further, civic actions had a significant impact on satisfaction in life and virtual social skills, producing happy and socially competent working citizens. Interestingly, only users who engaged in civic actions for addressing social issues were satisfied in life. The results suggested that a higher level of virtual social skills had a positive and significant impact on users' satisfaction in life.

Keywords: social media, Facebook, civic engagement, trust, satisfaction in life, activist.

ABSTRAK

Sosial media ialah sejenis artifak Informasi Teknologi yang sering dikaji dalam bidang Informasi Sistem. Kajian tentangnya menyumbang kepada ilmu pengetahuan berkaitan pemahaman tingkah laku manusia online, terutamanya dalam penglibatan perniagaan, psikologi dan social. Kajian dalam penggunaan sosial media selalunya boleh dikategorikan kepada faktor dalaman (seperti hiburan dan kepuasan) and faktor luaran (seperti maafaat penjalinan). Walaupun kebanyakan kajian jenis ini menunjukkan bahawa ada dan dalaman dan luran berkaitan dengan penggunaan sosial media, tetapi ia tidak dikaitakna dengan motivasi dari segi penjalinan sivik. Di samping ini, memandangkan kepentingan usaha sivik dan kekurangan penyiasatan dalam cara individu-individu seperti aktivis menggunakan sosial media untuk menangani isu-isu sosial, kajian ini dijalankan. Selaing itu, terdapat komen dari kajian-kajian untuk menyelidik faktor-faktor yang mendorong penyertaan individu dalam penjalinan sivik online dan penggunaan sosial media secara positif. Kajian ini telah menunjukkan penglibatan sivik di Facebook dalam dua mod: ungkapan sivik dan tindakan sivik.

Kajian ini menilai penglibatan sivik online dengan merujuk kepada cara aktivis bertindak online dalam menggalakkan penglibatan orang ramai untuk menangani isu-isu sosial serta tahap usaha sivik individu-individu di Facebook. Kajian ini memberi tumpuan khusus kepada memahami kaedah dalam penjalinan sivik online dalam menangani masalah sosial yang berleluasa; impetuses utama penglibatan usaha sivik online dan kesannya kepada kepuasan dalam hidup dan kemahiran sosial maya di tempat kerja.

Oleh sebab kekurangan metrik untuk mengukur penjalinan sivik online menggunakan social media, kajian ini telah menyediakan item-item yang disahkan bagi mengukur usaha individu-individu dalam penjalinan sivik online di Facebook. Konstruk baru ini dapat menentukan bagaimana individu-individu menggunakan sosial media untuk usaha sivik online dengan membezakan bentuk yang sama interaksi sivik. Aspek-aspek yang dalam kajian ini menggunakan tiga kaedah: temu bual, analisis web dan pengajian selidik.

Fasa pertama mengkaji bagaimana sosial media digunakan oleh aktivis untuk menangani isu-isu sosial. Hasil analisis kandungan wawancara mendedahkan lima usaha sivik online: (1) pengumpulan maklumat, (2) penerbitan maklumat, (3) dialog, (4) tindakan menyelaraskan, dan (5) melobi. Tiga masalah sosial berleluasa telah dikenalpasti daripada wawancara: (1) jenayah; (2) pengunduran daripada perkara-perkara sivik dan nilai-nilai moral, dan (3) kualiti pendidikan. Lima mod penjalinan sivik online ini juga ditemui dalam analisis laman sosial media aktivis-aktivis pada fasa kedua. Penemuan lima mod ini membolehkan penyelidikan untuk diteruskan untuk menentukan item-item bagi mengkaji usaha penjalinan sivik dalam fasa ketiga. Dua mod baru ditemui daripada kajian pada fasa ketiga: ungkapan sivik dan tindakan sivik.

Hasil analisis menggunakan model Structural Equation ke atas 619 jawapan dari responden mencadangkan bahawa ungkapan sivik mempergiatkan tindakan sivik warganegara di Facebook (fasa keempat). Selain itu, ketiga-tiga kepercayaan (amanah kecenderungan, amanah dalam sosial media; amanah dalam institusi) dan faktor-faktor manfaat (insentif kumpulan dan reputasi) adalah penting untuk membolehkan penjalinan sivik online di Facebook.

Hasil kajian ini menunjukkan kepentingan amanah dalam sosial media dan institusi dalam menggalakkan penyertaan sivik di online, terutamanya pada ungkapan sivik online. Dari segi kesan penglibatan sivik online, tindakan online sivik mempunyai kesan positif yang signifikan terhadap kepuasan dalam kehidupan dan kemahiran sosial maya. Hasil penyelidikan juga mencadangkan bahawa pekerja yang berkemahiran sosial maya online berpuas hati dalam kehidupan.

Kata-kata kunci: sosial media, Facebook, penjalinan sivik, kepercayaan, kepuasan dalam kehidupan, aktivis.

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ABBREVIATIONS

AMOS	Analysis of Moment Structures
AVE	Average Variance Extracted
CA	Civic Actions
CE	Civic Expressions
CFA	Confirmatory Factor Analysis
CI	Confidence Interval
DV	Dependent Variable
EFA	Exploratory Factor Analysis
FB	Facebook
GI	Group Incentives
GSS	General Social Survey
ICT	Information and Communication Technology
IS	Information Systems
IV	Independent Variable
MCMC	Malaysian Communications & Multimedia Commission
OCEB	Online Civic Engagement Behaviour
OCEMM	Online Civic Engagement Behaviour Maturity Model
PLC	Public Listed Companies
REP	Reputation
RQ	Research Question
SAT	Satisfaction in Life
SD	Standard Deviation
SEM	Structural Equation Modeling
SNS	Social Networking Sites
SPSS	Statistical Package for the Social Sciences
SSM	Companies Commission of Malaysia
TI	Trust in Institutions
TP	Trust Propensity
TS	Trust in Social Media
UGC	User Generated Contents
VIF	Variance Inflation Factor
VSS	Virtual Social Skills

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CHAPTER 1: OVERVIEW OF THE RESEARCH

1.1 Introduction

This research focuses on enriching the understanding of how social media is shaping the landscape of online civic engagement. Specifically, it examines the factors that influence the willingness of social media users to engage in online civic efforts; the level of online civic engagement behaviour; the impact of this online civic behaviour on their satisfaction in life and the effect that online civic engagement produces in terms of their virtual social skills at work. Civic engagement refers to the efforts by individuals in addressing social issues, such as signing a petition, making donations, campaigning for a social cause and voting. Civic engagement has many definitions (see for example Brady et al., 1995; Putnam, 2000; Ehrlich, 2000; Shah et al., 2001; Montgomery et al., 2004, Ramakrishnan & Baldassare, 2004; Weissberg, 2005; Hay, 2007; Raynes-Goldie & Walker, 2008). While there is little agreement in the academic literature on how civic engagement should be defined, in this research, ‘online civic engagement’ is regarded as a multi-faceted construct that embraces a variety of notions of Internet activism, such as collecting information, publishing information, having dialogues with others, coordinating activities and lobbying decision makers to make a change (Denning, 2000). The study looks beyond civic engagement widely discussed organised political campaigns.

The rationale for focusing specifically on online civic engagement behaviour is twofold. First, the reoccurring perception that there is a civic deficit in society (Delli Carpini, 2000; Putnam, 2000; Wattenberg, 2006; Bennet et al., 2011) has heightened the need for practitioners to understand more clearly the factors that encourage individuals to willingly invest their time, knowledge and effort in social media for civic engagement.

Having a deeper understanding of the online civic engagement behaviour would assist practitioners in their efforts to design more effective civic strategies using information communication technologies in opening up civic expressions and actions with the public to address social issues. Despite the high numbers of social media users (Socialbakers, 2013) and lively discussions revolving around activism on social media, few empirical studies have explored this phenomenon (Gil de Zuniga et al., 2012; Harp et al., 2012). Little is known about how and what type of civic communications takes place in social media and to what end does it have an impact on peoples' lives. While some celebrate the importance and potential of social media in perpetuating online civic engagement, others argue that civic efforts should not be Facebooked or tweeted (Koch, 2008; Gladwell, 2010). As such, endorsing the ability of social media to produce positive outcomes for society can be quite a daunting task given that there are negative comments on its effects (see for example Boyd, 2008; Gladwell, 2010). Although the impact of online civic engagement remains a grey area, its potential contribution to produce a happier and more inclusive society is very important. Considering that the use of social networking sites (SNS) has extended considerably with over one billion users (Socialbakers, 2013), it is a promising arena to address social issues. The time is ripe for expanding and elaborating on previous limited research.

Second, while much of the research effort on Information Systems (IS) has focused on the motivation, how different types of motivation influence their usage to be willingly involved in various civic engagement modes has received less attention. Prior work in this area did not focus on how technology, such as social media, can support the motivations a person has for exchanging social capital (Ellison et al., 2011). Moreover, a move to civic usage via Web 2.0 is an interesting angle to examine whether individuals, such as activists, are indeed evolving their online civic communication

styles. With trust and incentives being potential enablers in encouraging participatory behaviour, as suggested by the literature (Chapter 2), understanding the relative strengths of the trust and benefit factors that influence users to provide time and effort to voluntarily engage in social issues using social media is a way to increase public involvement in civic matters.

This study encompasses two streams of literature, i.e. Information Systems and sociology. Thus, its theoretical framework has anchored the underpinning theories (social capital, social exchange and general theories) from both streams of literature. The section on understanding the impact of social media usage on civic engagement also included understanding of the effects of daily usage of technologies at the workplace (see for example Wang and Haggerty, 2011). Thus, the literature also includes those from the management and business.

This chapter discusses the motivations for this research on online civic engagement behaviour. It begins by identifying some of the key aspects in social media, including a brief review of the potential social media have in embedding civic virtues and maintaining its sustainability. This is followed by identifying the key issue in public civic participation. Some new methodological approaches are identified that have the potential to move the understanding of online civic engagement behaviour forward. Addressing the potential positive effects of social media have to offer, the need for more public involvement in social issues, and the methodological areas form the genesis of this research investigation. This chapter next describes how the investigation will be progressed through a series of three interrelated studies in five phases. Finally, Chapter 1 provides a brief overview of each of the chapters that follow in this document.

1.2 Rationale for this research

1.2.1 Maturing of the social media user base

A major rationale for the current research is the size and importance of social media. Social media are a major platform for the global industry. It is regarded as one of the world's most popular forms of marketing communications platform, which is skyrocketing (Wright et al., 2010; Stambor, 2011). In the business domain, eMarketer has stated that the amount marketers are spending on social marketing is rapidly increasing. By 2014, marketers will increase their spending on social networking sites for marketing to \$4.81 billion (Rhodes, 2010; Stambor, 2011). Its popularity is suggested by the high number of users. Facebook itself has been reported to have close to 850 million people using it each month and about 480 million people use it every day (Curtin, 2012) while Twitter has 500 million registered users (Rousseau, 2012). Alexa, the web information company that tracks web traffic, ranked Facebook and YouTube as the most visited social media sites in the world (Alexa, 2012). Locally, there are over 1 billion Facebook users in the country (Socialbakers, 2013). Moreover, Malaysia represents the 17th most 'Facebooking' nation in the world (Yee, 2012). Thus, the country offers a great opportunity to test the effects of social media use for civic purposes to address social issues in an attempt to curb social problems, build social capital and enhance the quality of life.

The first step towards leveraging social media for addressing social issues is to examine online civic engagement behaviour from the perspective of its users. Unless people are willing to incorporate civic contributions (such as knowledge, effort and time) in their social media activities, online civic engagement cannot take place. Therefore, understanding the key impetuses for online civic engagement behaviour is important. One probable outcome of social media is that it offers a new channel for civic

participation to complement the traditional face-to-face civic engagement. Another potential outcome of these highly participated social media sites is that they might increase social capital by augmenting traditional face-to-face civic engagement, and, perhaps, lessen the problems associated with decreasing face-to-face community participation.

1.2.2 Advocating social media for civic engagement

Social media users who engage in civic efforts are likely to create user generated-content (UGC), such as pictures, photos, videos, article writings and messages. UGC contributes to the wealth of an online community, and, consequently, attracts new members. Increasing network externalities for economies of scale allows social media sites to broadcast the call for public civic participation at a higher rate and for greater success.

The associative features of social media have the ability to amplify the effects for communications without geographical and time constraints. It readily allows a large number of individuals to share their views with many people simultaneously. One example was when civilians rebelled beyond the expectations of autocratic leaders in which the users of Facebook and Twitter led to the dictators in Tunisia, Egypt and Libya being deposed while the Arab spring brought waves of liberation to a long-oppressed region (see for example Lotan et al., 2010; Dunn, 2011; Khamis & Vaughan, 2011; Tufekci & Wilson, 2012). Other works have also suggested that social media is taking a role in defining areas for engagement and mobilizing individuals for civic action (Zhang et al., 2010; Thackeray & Hunter, 2010; Macnamara, 2009; Hochheiser & Shneiderman, 2010).

Online civic engagement also provides an opportunity for the stakeholders of social activist groups to persuade others to participate in civic activities. Given the inherent high cost involved in the traditional manner of civic engagement, the use of social media enables users to engage in a timely and direct manner at a relatively low cost and with higher levels of efficiency than can be achieved through the more traditional communication tools (Kaplan & Haenlein, 2012). This makes the use of social media as an approach to the promotion of civic behaviour desirable and assists the need for greater public involvement in civic engagement (see section 1.2.6).

Furthermore, based on the potential capability of social media in fostering civic engagement (see for example Mandarano et al., 2010; Culver & Jacobson, 2012), policy makers, government agencies, not-for-profit organisations and individuals should tap into this media in an effort to generate more publicity for social change to restrain social problems. To do so, the factors influencing social media for civic efforts ought to be comprehended. However, not much is known about why or how people use social media for civic engagement (Harris, 2008; Pasek et al., 2009; Valenzuela et al., 2009; Valenzuela, 2013).

For practitioners such as activists, the more relevant question would be: how can we get people to be more engaged in addressing social problems using social media? This question is perhaps even more important given the past reports on social problems: there has been over 60,000 crime cases within five months (The Star Online, 2012); Malaysia's significant drop in its Transparency International Corruption Index (The Economist Intelligence Unit, 2012) and being one of the most corrupt nations (Ernst & Young, 2013); and lack of courtesy indicated by the ranking levels, being at the bottom of the survey list (Lim et al., 2012; Kutty, 2012; Ismail & Zakuan, 2012). Therefore,

critical to the success of embedding online civic engagement behaviour among citizens begins with a deeper understanding of how social media is used by individuals and the relative value it is able to produce.

1.2.3 Ensuring social media sustainability

New research is warranted in addressing the key impetuses for social media usage for civic engagement (Gil de Zuniga et al., 2012). New knowledge in this regard is imperative to the long-term sustainability of social media for civic purposes. First, social media site use for addressing social issues would result in activities and engagement in social interactions, such as profile browsing, viewing links, comment exchanges, coordination of civic activities and the reciprocation of mutual favours, which, ultimately, leads to the growth and expansion of cross site usage, particularly that of social network sites (Chen, 2013). Such links and cross site usage suggests the media-related interactive potential of social media, in particular, social networking sites (Stromer-Galley & Foot, 2002).

Second, some users allocate a portion of their social media sites for civic purposes as a form of social entrepreneurship. Reputable social media sites attract visits, which boosts the volume of traffic, allowing service providers to successfully attract advertisers for higher ad revenue. Third, UGCs contribute to the resources of an online community, and, consequently, attract new members, which then increases the network externalities for economies of scale. This will allow social media sites to propagate their business or social-cause models for greater success (Chen, 2013).

1.2.4 Developing a deeper understanding of online civic engagement

A key motivation for the current research is the need to broaden the existing albeit limited range of conceptual frameworks that can inform our understanding concerning how citizens use social media to help clarify the different paths that spur civic action over the Internet (Vitak et al., 2011; Gil de Zuniga et al., 2012; Valenzuela, 2013). This can be achieved by differentiating similar forms of social media interaction (Correa et al., 2010) for civic communications.

As the field of social capital research has evolved from the traditional civic engagement to a virtual one, minimal lenses have been applied to examine digital activism, particularly in a non-political perspective. Past studies have been conducted to describe how individuals use the Internet to convey political issues (Denning, 2000; Price et al., 2002, Shah et al., 2005; Ward, 2011; Conroy et al., 2012, Gil de Zuniga et al., 2012). Typically, these frameworks focused on the establishment of Internet services for citizenship. Their concentration was generally on politics and opinions, and lacked a foundation for understanding social exchanges in the form of online civic participation to address social issues, particularly in the social media context.

A particular criticism of this stream of research concerns the limited empirical research on the effects of using social media on civic behaviours (Pasek et al., 2009; Valenzuela et al., 2009, Valenzuela, 2013). According to Gibson & McAllister (2012), what is less clear is the extent to which social interaction in the online sphere generates a reservoir of social capital among individuals. Although civic engagement encompasses political and non-political efforts or processes (Erlich, 2000; Shah et al., 2001; Raynes-Goldie & Walker, 2008; Zuniga & Valenzuela, 2010; Zuniga et al., 2012). Many studies have only considered understanding civic participation from the political perspective (see for

example Donnelly-Smith, 2008; Baumgartner & Morris, 2010; Bennett et al., 2011; Boyd et al., 2011; Ferguson & Garza, 2011; Conroy et al., 2012; Gibson & McAllister, 2013; Park, 2013). As a result, scant research efforts have focused on understanding the interactive behaviours involved in social issues.

In addition, there are calls for the development of a framework that considers a broader range of factors, the different relationships of civic communication modes and impact variables to further expand the understanding of online civic engagement. This is explained in Chapter 2.

1.2.5 Understanding the social effects of social media

Another driver for this research is the need to understand more about the social impact of using social media, particularly in different civic modes. Wadsworth (1998) explained that social change requires people to look upon an issue with the intention to change and improve it. Today, this sort of participation increasingly takes place online. While some scholars have emphasized that Information Technology has played a role in fostering social capital, others disagree (see section 2.4.1). As such, the growing popularity of social media have created a new debate: Do these Web 2.0 services contribute to society by allowing people to become informed, find common causes and participate in social issues more often (e.g. Bennett, 2008) and produce positive effects or do they foster negative effects (e.g. Hodgkinson, 2008) leading to a less satisfied life?

A review of recent literature has shown that there is a conflicting debate on the contribution of social media in terms of positive or negative outcomes (Valkenburg et al., 2006; Ellison et al., 2007; Baker and Moore 2008; Steinfield et al., 2008; Ko & Kuo 2009; Kramer 2010; Kim & Lee 2011; Lee et al., 2011; Kalpidou et al., 2011; Manago et al., 2012; Pea et al., 2012). With the current debate of whether social media can

produce pro-social effects, calls for future research in social media, in relation to their subject well-being, emphasize the need to look into this matter (Kim & Lee, 2011). These studies have been considered to be insufficient in the literature (Lee et al., 2011).

In the advent of social media, the nature of how individuals communicate in a virtual context has also changed dramatically. Users now need to have the knowledge and skills to comprehend and interpret a series of text expressions and emoticons in order to build social relationships with others on the Internet. These skills are referred to as virtual social skills (Wang & Haggerty, 2011). As a lot of work now takes place online, these social protocols constitute an essential part of an individual's capability to interpret them in order to perform well in virtual settings. Despite the importance of virtual competence for effective online operations (Pauleen & Yoong, 2001; Ahuja & Galvin, 2003; Oshri et al., 2007), as yet, there is no existing study on the effect of the modes of online civic communications on the virtual social skills of users at work. Such modes involve online socializing from searching to debating issues with others, which could enhance the socialisation and communication skills of users with others. This research expands the current understanding of how different types of online civic behaviour affect their contentment in life and shape their virtual social skills at work.

1.2.6 Calls for greater public involvement in civic participation

Past literature has suggested that there is a civic deficit in society, and, therefore, a need for greater public involvement in civic engagement has since been emphasized. In 1995, Putnam's 'Bowling Alone' popularized the concept by highlighting the erosion of social capital in society. Five years later, he raised the concern about the nature of civic society per se; are we a less caring society than before? The current civic malaise that has engulfed society (Delli Carpini, 2000; Vromen, 2003; Wattenberg, 2006; Kim,

2007; Saha et al., 2007; Bennet et al., 2011; Dalton, 2011; McAllister, 2011) has awakened renewed interest in promoting a broad sense of responsibility among citizens. Thus, research that pursues an understanding of the factors that could lead to increasing individual involvement in addressing social issues is warranted. The terms social issues and social problems are used interchangeably in this study.

1.2.7 Addressing the need for a continued conceptual and methodological development

A final rationale for the present research is the need for continued development around the theories (Cohen & Prusak, 2001) and methods being applied to understand the social media use for civic engagement phenomenon (Correa et al., 2010; Harp et al., 2012). The literature (Chapter 2) attests to a lack of mixed method investigation with too much reliance on qualitative based social media related civic engagement studies as opposed to a well-thought-out qualitative and quantitative research. In addition, the criticism of inconclusive and methodological weaknesses calls for future research to improve studies in this stream. Such examples include using a more systematic sampling approach, developing continuous dependent variables (Stefanone et al., 2012); using richer measures for online civic engagement behaviour (Correa et al. 2010); understanding Web 2.0 in a more rigorous approach (Ward, 2011); approaching the study of Facebook use and the generation of social capital via multiple methodologies (Ellison et al., 2007), and pairing survey data with actual measures of use, such as information collected from actual profiles on the Facebook site (Ellison et al., 2006). In an effort to address some of these methodological concerns, the current research adopts a multi-method approach that incorporates a mix of qualitative and quantitative approaches that facilitate triangulation of the research findings.

In summary, there are both conceptual and applied reasons for the series of methods in this thesis. With a better theoretical and empirical understanding of the rationale behind users' online civic participatory behaviour, and a better appreciation of the relative strengths of the predictors and the effects of online civic engagement behaviour, practitioners can tailor their online civic engagement strategies more effectively. In turn, this provides a deeper understanding of the intrinsic and extrinsic cues that influence individuals to engage in social issues, and, consequently, may become virtually social skilled and happier in life. The next two sections present the research questions and research objectives for this study.

1.3 Research questions

As outlined in section 1.2, there are several motivations for the current research. These include the need for understanding the factors that influence online civic engagement behaviour and the modes of civic engagement and their impact, all of which require further attention from researchers. Therefore, to develop a deeper understanding of online civic engagement behaviour, four research questions are posed:

RQ1. How are social media users engaging in online civic engagement behaviour?

RQ2. What are the factors that influence online civic engagement behaviour?

RQ3. What is the impact of civic engagement in social media

a) on satisfaction in life and virtual social skills?

b) as a mediator between trust factors and satisfaction in life?

RQ4. What is the impact of virtual social skills on satisfaction in life?

The first research question applied the qualitative approach to address the major prevalent problems and understanding the modes of civic engagement behaviour on

social media. This strand of research led to the hypothesis development in the next strand of this sequential mix methods study. As such, the remaining research questions were confirmatory questions where quantitative analyses were performed.

1.4 Research objectives

This research attempts to bring together the three theories – social capital theory, the general incentive theory and the social exchange theory – underpinning the research, to provide a sound basis for explaining online civic engagement behaviour. Given the multidimensionality of the term civic engagement (see for example Verba et al., 1995; Putnam, 2000; Adler & Kwon, 2002; Ramakrishnan & Baldassare, 2004; Moy, et al., 2005; Weissberg, 2005), this study covers civic engagement in terms of local citizen efforts in addressing the prevalent social problems in the country using social media. The scope of social problems (or social issues, used interchangeably) could be too wide to cover, as such, it was necessary to first identify the prevalent social problems in the country. Moreover, due to a lack of understanding of the modes of online civic engagement behaviour, the research explores how activists deploy their civic efforts using social media. The current research has seven objectives:

1. To explore social media users, in particular, activists' online civic engagement behaviour.
2. To determine the factors that influence online civic engagement behaviour among social media users.
3. To examine the level of social media usage for civic engagement among social media users.
4. To investigate the impact of online civic engagement behaviour on satisfaction in life.

5. To investigate the impact of online civic engagement behaviour on virtual social skills.
6. To examine the mediating role of online civic engagement behaviour on
 - a) trust propensity and satisfaction in life.
 - b) trust in social media and satisfaction in life.
 - c) trust in institutions and satisfaction in life.
7. To examine the impact of virtual social skills on satisfaction in life.

1.5 Research scope and design

The research begins its approach to online civic engagement behaviour from a linguistic and cognitive dimension. Understanding how activists discuss, think, and act with respect to addressing social issues using social media offers a conceptually robust approach for understanding online civic engagement behaviour more comprehensively. Phase 1 of this study describes how activists and their organisations (where applicable) explain their approach in online civic engagement via interviews. In the same phase, the activists also discussed some of the prevalent social problems in the country. Phase 2 encompasses web analysis to investigate how the said efforts in Phase 1 were translated into online civic engagement. The subsequent approach is from a positivist perspective where surveys were conducted to capture the factors, usage and impact of online civic engagement (Phase 3). The research employs a mix of qualitative and quantitative methodologies. A multi-method approach such as this allows the researcher to gain a richer and more in-depth understanding of the online civic engagement phenomenon. Figure 1.1 shows an overview of the research model development and testing procedure. The methodologies of the respective Phases are described in Chapter 4.

1.6 Contributions of the research

The major contributions of this thesis are: (1) extending the literature in social media and civic engagement, particularly with the validated model of online civic engagement behaviour, which provided insights into the use of social media in addressing social issues by individuals and its impact on their well-being and virtual social skills. This is supported by empirical analysis using data captured from working individuals; (2) the identification of the prevalent social issues and the major online civic engagement behaviour modes by social activists; (3) the development of new scales of measurement for online civic engagement behaviour; (4) the identification of certain trust and benefit factors as key impetuses in online civic participatory behaviour; (5) the finding that higher online civic expression leads to higher online civic action on Facebook; (6) the positive impact that online civic engagement behaviour produces on virtual social skills and satisfaction in life. In particular, extending the knowledge in subject well-being studies with the findings of two new factors (online civic actions and virtual social skills) which positively influence satisfaction in life; and (7) the development of an online civic engagement maturity model as a conceptual model based on the literature and findings from this study. This model posits that there is a logical sequence for increasing social media-based public engagement and that practitioners should focus on achieving one maturity level at a time. The study also produced a conceptual interdisciplinary model of the online civic engagement success factors. It explains the factors and conditions needed from various fields in order for civic engagement via social media to occur.

1.6.1 Methodological contribution

One of the methodological contributions was applying three types of method (interviews, web analysis and surveys) in investigating online civic engagement

behaviour. These methods demonstrated the connections among different approaches in studying online civic engagement behaviour. The types of qualitative research methods were applied to investigate the modes of online civic engagement behaviour in addressing social issues. The qualitative interview study provided the broader perspective by capturing the viewpoints of expert practitioners concerning social media usage for spreading their causes and addressing social issues. Specifically, these experts identified the modes that contribute to online civic engagement behaviour (e.g. posting charity invitations on Facebook and sending out civic messages using Twitter). The complementary web analysis confirmed these online civic efforts and captured the actual online civic behaviour connotatively.

The quantitative survey study captured the individual views of the determinants and impact of online civic engagement behaviour (identified by the literature), and the modes of online civic engagement behaviour (identified by both the literature and expert practitioners in the qualitative studies). The activists who participated in the qualitative study included prominent public figures with over 30 years of experience in managing social problems in the country. Individuals who participated in the survey study were from various companies and organisations. The survey participant sample was an adequate representation of the population of working adults who are social media users. The detailed sampling information is presented in Chapter 4.

The link between the qualitative studies (interviews and web analysis) and the literature was the revised research model on online civic engagement behaviour, which was used as an input for the development of the new construct. Phase 3 contributes to a development of new measures for online civic engagement behaviour. The results from Phase 3 were fed into the full length survey instrument, Phase 4 (see Figure 1.1). The

survey data were then used to validate the structural model of online civic engagement behaviour and to test the hypotheses. The interview and web analysis studies resulted in part of the research model development, which was tested in the subsequent survey study. Phase 3 also revealed that online civic engagement behaviour suffices as a multifaceted construct consisting of civic expressions and civic actions as its dimensions. Chapter 4 discusses the research design in greater detail.

For each phase, the research design played an important role in capturing data, conducting data analysis, followed by the validation of data. The other methodological contribution was reflected in the data validation process. In Phase 1, interviews were conducted with experienced social activists. The outcome of the qualitative phases (Phase 1 and Phase 2) was validated via triangulation and by a PhD IS academician. The second validation process was to validate new scales of measurement in a series of expert studies with academics and practitioners (see Figure 1.1, Phase 3). The third validation process was the empirical analysis of the survey data in Phase 4. This third validation process was a series of statistical tests to ensure the validity and reliability of the measurement and structural models of online civic engagement behaviour. Details of the validation process are discussed in Chapters 4 to 8.

1.6.2 Theoretical contribution

This study extended the research literature on civic engagement with emerging technologies, in particular, social media, to examine and document what influences online civic engagement behaviour and its impact on life satisfaction and virtual social skills. This research contributed to the studies in social media in the following ways. First, this is one of the first empirical papers to examine and quantify various types of trust and incentive for civic content contribution in social media. While most empirical

studies on social media focus on gratification influences to determine associations, few look at the underlying trust and beneficial factors that fundamentally define such civic social behaviours. Secondly, this research has addressed the need to explore online civic behaviour in different modes, which contributed to the development of a new construct – online civic engagement behaviour –that consists of two modes: civic expressions and civic actions. Third, this study contributed to understanding the impact of online civic engagement behaviour on employees’ virtual social skills and the individuals’ satisfaction in life.

The social capital theory was the starting point in identifying the relational factors important in participatory behaviour. This study extended the study of trust by including three trust factors: trust propensity, trust in social media and trust in institutions. The benefit factors examined were derived from the social exchange theory and the theory of general incentives. This study extended the literature based on these theories in identifying two types of incentive (collectivistic and individualistic incentives), which are key impetuses for driving the use of social media for civic participation. This research also extended the literature in social media and civic engagement by developing new measures for online civic engagement. The study has validated two major modes of online civic engagement in Facebook, i.e. civic expressions and civic actions. In addition, the study contributed new knowledge to the subject well-being literature by uncovering two new factors that influence satisfaction in life, which are conducting civic actions on Facebook and virtual social skills. Discussions on these findings are presented in Chapter 9.

The survey data captured from individual practitioners were applied to the research model of online civic engagement behaviour. The results from this research suggested

that a number of trust factors and benefit factors were adequate predictors for certain civic modes. This research also revealed that civic expressions intensify the level of civic actions taking place on social media. The findings suggested that online civic engagement behaviour leads to happy citizens and virtually socially skilled employees. In particular, the study contributed new knowledge to the subject well-being literature by uncovering two new factors that influence satisfaction in life, which are conducting civic actions on Facebook and virtual social skills.

Another theoretical contribution relates to the research design for the each phase in this study (see Figure 1.2). The results of the qualitative study were able to contribute to the development of the new construct, which was fed into the full length survey instrument in the final phase of this research. An additional contribution was the development of the online civic engagement maturity model, which describes four maturity levels: (1) initiation (2) formation (3) growth and (4) maturity. Another conceptual model indicating the possible factors and conditions for online civic engagement phenomena to happen developed. The explanations for these two conceptual models are presented in Chapter 9.

1.6.3 Practical contribution

A major practical and professional contribution is the identification of the importance of trust to practitioners, in particular, policy makers' efforts in promoting citizen engagement by closing the public-police disengagement gap in order to combat social issues. Reinforcement of incentives that would be beneficial for society, focusing particularly on the benefit and protection of family members would most likely ignite the initiation of citizens becoming more involved in addressing social issues.

On an organisation-level and at the professional-level, encouraging employees to be active in online civic engagement will provide the foundation for enhancing their virtual social skills development. Online civic engagement behaviour was also found to lead to happy people. As past research suggests that happier employees leads to higher productivity (Wright & Cropanzano, 2004; Zelenski et al., 2008), employers could encourage their staff to contribute to online civic participation by addressing in-house problems or general social issues as an indirect way to boost their performance at work.

These new and insightful findings provide practitioners the opportunity to incorporate online civic engagement as part of their corporate social responsibility. Other contributions are presented in Chapter 9.

1.6.4 Overview of chapters

In Chapter 2, a broad context for the thesis is established by exploring the research on social media usage and online civic engagement. In addition, Chapter 2 discusses the factors that encourage voluntary participatory behaviour from the IS and civic engagement literature. The major theories explaining these participatory behaviours are then reviewed. Chapter 2 also reviews past works pertaining to the modes of online civic engagement behaviour and the effects of these behaviours on satisfaction in life and the importance of virtual social skills. Chapter 3 presents the gaps identified in the literature and the development of a theoretical framework. It also discusses the development of the hypotheses and presents the research model. This chapter has four sections: (1) identification of the research gaps, (2) justification and operationalization of the constructs, (3) the development of the hypotheses for the research model, and (4) the research model. Chapter 4 addresses the research methodology. The research paradigm and design were identified and justified, together with an explanation of the

different methodologies adopted in each of the four phases. These methods are interviews (Phase 1), web analysis (Phase 2), and the use of surveys (Phases 3 and 4). The steps taken to ensure the validity and reliability of the research findings within each of these methods were discussed.

The next four chapters report on the findings for each of the four phases. Specifically, Chapter 5 presents Phase 1, the interviews with social activists that explore the prevalent social problems and the use of social media for addressing social issues. Chapter 6 (Phase 2) presents a qualitative study on the use of social media for addressing social issues as communicated by social activists and their organisations (where applicable) via web analysis. The aim of this study was to understand and identify the modes of online civic engagement. This section also serves as a validation to the interview content from Phase 1. The qualitative phases of 1 and 2 aimed to contribute to the conceptual features of the proposed online civic engagement model. The qualitative results for online civic engagement behaviour were fed into Phase 3.

Chapter 7 (Phase 3) presents the development of the new construct – online civic engagement. This chapter outlines the process of developing a survey instrument with new scales of measurement. It details the survey item creation process, development of new scales of measurement, and the validation of the scales by a series of expert studies. The revised research model and hypotheses are also presented.

Chapter 8 discusses the empirical analysis of the survey results, in particular the structural and measurement models using Structural Equation Modelling (SEM). This chapter presents the statistical validation processes and hypotheses results. Chapter 9 is the overall discussion the findings across all phases, together with an interpretation of

the results with reference to the theories and literature review described in Chapters 2. This chapter also presents an online civic engagement maturity model and interdisciplinary model at a conceptual level. The contribution of this research to theory, methods and practice is then outlined. Finally, the limitations of the research are discussed and areas for future research highlighted before concluding.

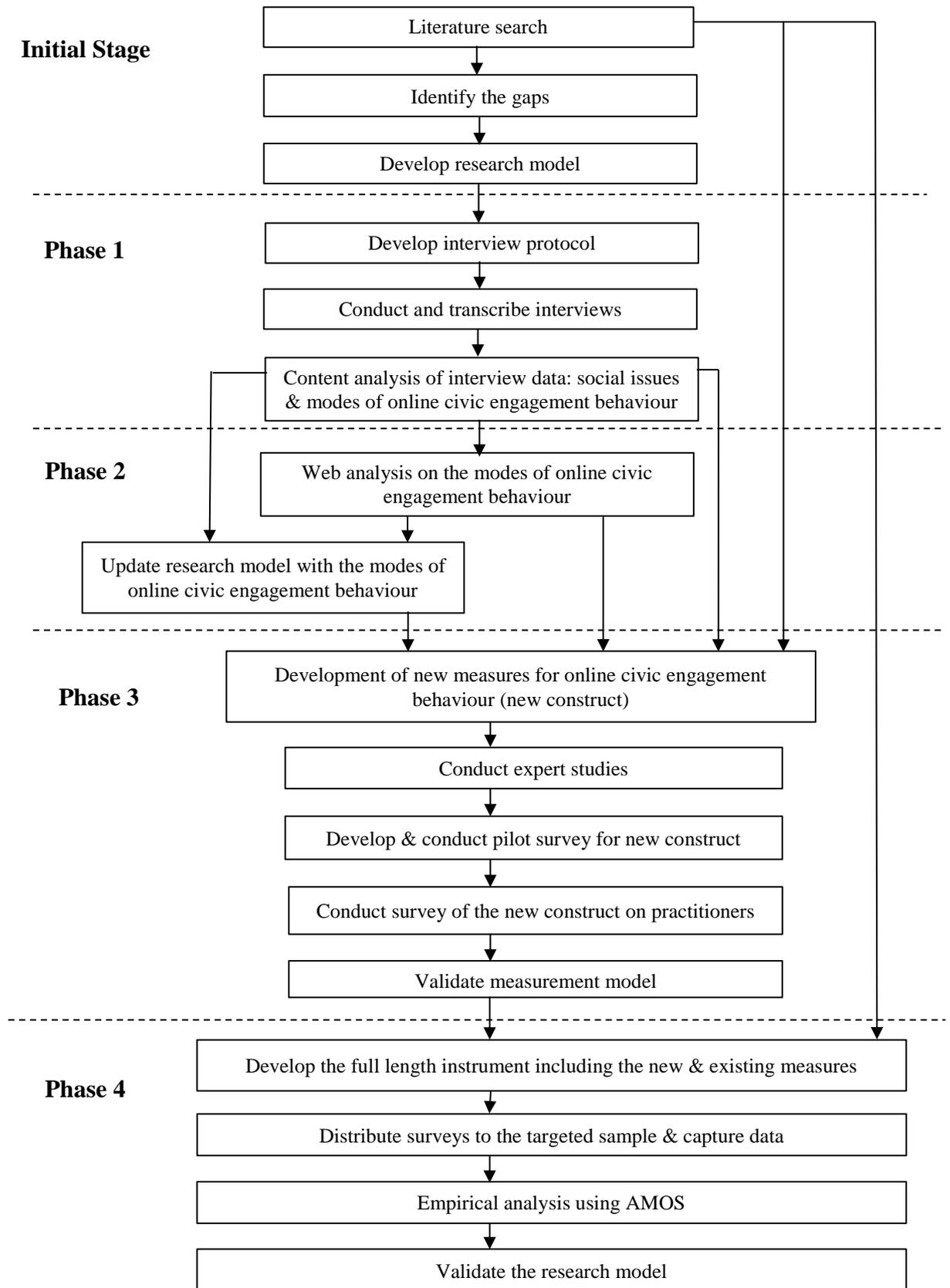


Figure 1.1 Overview of the research model development and testing process

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

There are a number of studies that point towards a civic deficit story, suggesting that people are less embedded in community life than before (Putnam 2000; Delli Carpini, 2000; Wattenberg, 2006; Bennet et al., 2011). In response to the call for research to increase citizen civic engagement, are scholars who suggest using the Internet, particularly social media, for public involvement (Moy, et al., 2005; Kim, 2007; Bennett, 2008; Raynes-Goldie & Walker 2008; Kumar & Vragov, 2009; Baumgartner & Morris 2010). Social media and civic scholars have recommended that understanding factors that are advantageous to spur online civic engagement is an important area that needs to be researched to build social capital (Ellison et al., 2011 & Gil de Zuniga et al., 2012). Nevertheless, there is limited empirical research on the factors (Gil de Zuniga et al., 2012) and the effects of using social media for civic engagement (Pasek et al., 2009; Valenzuela et al., 2009; Gil de Zuniga & Valenzuela, 2011, Valenzuela, 2013).

While theoretical and conceptual frameworks, such as Denning's (2000) Internet activism, and Thackeray and Hunter's (2010) use of technology for public health advocacy, provide useful summaries of the theoretical progress in relation to how civic engagement works on the Internet, they also serve to highlight the scarcity of similar comprehensive frameworks that describe the theories and concepts underpinning online civic engagement behaviour. In addition, there have been calls to incorporate multiple methods and apply a more rigorous approach in exploring social media and civic behaviours (Ellison et al., 2007; Waite, 2009; Correa et al., 2010; Ward, 2011; Harp et al., 2012).

Research on online civic engagement overlaps with two streams – one that reflects the political engagement of social media users (i.e. any activities pertaining to achieving a political objective, such as campaigning, sponsoring for a political candidate), and a second that focuses on the strategic use of social media for addressing general social issues (i.e. non-political initiatives, e.g. tailoring to health awareness (Sanematsu, 2011; Bender et al., 2011; Lau et al., 2012; Van de Belt et al., 2012); for environmental advocacy (Martinello & Donelles, 2012); and for safety awareness (Quillen, 2009; Murphy, 2013)). Research on online civic engagement behaviour also embraces several strands of literature including IS, sociology and psychology, as depicted in this Chapter.

This thesis investigates the influence and impact of social media usage for civic engagement. This chapter begins with an introduction to social media literature with a focus on its influences. This discussion proceeds to establish the role of social media in fostering civic engagement and its effects. However, this line of literature does not consider civic engagement in-depth. Therefore, an understanding on social capital, social exchange and general incentives theories and the relevant civic engagement literature is examined to identify the determinants of civic engagement. The ensuing sections examine the existing studies, conceptual frameworks and models of online civic engagement. This review identifies some important gaps in the researcher's understanding of these issues that required further investigation.

2.2 Social Media, its influences and uses

Various authors have defined social media. The Harvard Business Review defined social media as 'media for social interaction, using highly accessible and scalable publishing techniques [and] web-based technologies to transform and broadcast media monologues into social media dialogues' (Dutta, 2010, p. 128). Others defined social

media as collaborative online applications and technologies that enable UGC, sharing of information, and collaboration amongst a community of users (Henderson & Bowley, 2010; Kaplan & Haenlein, 2010; Lim S. et al., 2012). As such, it can be said that social media are application tools that have transformed the static web world to one that is continuously influx with the emergence of Web 2.0. Examples of popular social media include social networking sites (SNS) (e.g. Facebook) through which social media users find and add friends, interact with them via messages, update others' timelines or one's own personal profile and chat online. Social media also includes web logs, commonly known as blogs in which the authors maintain regular commentaries, some in the form of an e-journal.

Another smaller scaled version of blogs are micro-blogs (e.g. Twitter), a form of networking service for message delivery that is restricted to 140 characters. Then there are picture sharing social media applications, such as Flickr, and video sharing websites like YouTube, which is owned by Google. The common characteristics of social media applications are their ability to allow their users to create, modify, exchange content and to interact and collaborate with other users in their own network (Henderson & Bowley, 2010; Kaplan & Haenlein, 2010; Lim et al., 2012). Social media is different from normal websites in the sense that it is more of a collective, social network that leverages the power of relationships. Such power manifests on the magnitude of its users. For example, Facebook had about 1.11 billion active users as of early 2013 (Facebook, 2013b) and over 1 billion unique users visit YouTube each month (YouTube, 2013).

Many studies on social media usage can be classified into internal and external factors, as shown in Table 2.1. Internal factors (from within) reflect on gaining personal gratification from social media, such as entertainment and satisfaction. For instance, the

good feeling that one gets from watching videos on YouTube. Social media scholars have highlighted that gratification factors such as entertainment and relaxation obtained from social interaction, looking at pictures and seeking status play a role in influencing the use of social networking sites (Raacke & Raacke, 2008; Shin, 2009; Dunne et al., 2010; Lee & Ma 2012; de Vries et al., 2012).

External factors (from outside) refer to the drivers coming from external entities beyond the individual, such as social interaction. For example, a person might engage in social media because of the connections and benefits that they could gain by keeping in touch with friends through Facebook, such as job seeking (Jung et al. 2007; Kim et al., 2010). Other examples include technology, such as the features and the applications' ease of use, which also plays a role in influencing social media usage (Lampe et al., 2011; Vitak et al. 2011; Young, 2011; Berthon et al., 2012; De Vries et al., 2012, Cao & Hong, 2013). While these studies on the motivations generated a clear link between internal and external factors for social media usage, they did not relate clearly the motivation to the contributions made in terms of civic engagement behaviour. This leads to the question of what factors influence the use of social media for civic engagement, which needs to be examined.

Table 2.1 Factors influencing social media usage

Internal		External	
Factors	Source	Factors	Source
<ul style="list-style-type: none"> • Trust • Creditability • Reliability 	Westerman et al., 2012; Lin & Lu, 2011; Valenzuela et al., 2009; Baker & Moore 2008.	<ul style="list-style-type: none"> • Technical features • Software • Profile Page • Vividness • Compatibility of task-technology 	Berthon et al., 2012; De Vries et al., 2012; Young, 2011; Lampe et al., 2011; Vitak et al., 2011; Cao & Hong, 2013.
<ul style="list-style-type: none"> • Entertainment • Enjoyment: relaxation, excitement • Fun-seeking gratifications • Dating 	Lee & Ma, 2012; de Vries et al., 2012; Shin, 2009; Jung Soet al., 2007; Dunne et al.2010; Raacke & Raacke 2008.	<ul style="list-style-type: none"> • Government rules • Regulation • Policies 	Berthon et al., 2012; Auer, 2011.
<ul style="list-style-type: none"> • Status • Reputation • Self-construal • Peer acceptance • Safety from embarrassment • Rejection 	Lee & Ma, 2012; Kietzmann et al., 2011; Dunne et al. 2010; Kim et al., 2010; Freberg et al., 2013.	<ul style="list-style-type: none"> • Information seeking • Use News 	Lee & Ma, 2012; Ellison et al., 2011; Zuniga et al., 2011; Kim et al., 2010; Java et al., 2009; Barker, 2009; Dunne et al., 2010; Loving & Ochoa, 2011; Raacke & Raacke, 2008.
<ul style="list-style-type: none"> • Political interest 	Vitak et al., 2011.	<ul style="list-style-type: none"> • Professional advancement • Job seeking 	Jung et al., 2007; Kim et al., 2010.
<ul style="list-style-type: none"> • Pass time • Escapism • Alleviation of boredom 	Jung et al., 2007; Dunne et al., 2010.	<ul style="list-style-type: none"> • Shared values • Culture • Norms 	Berthon et al., 2012; Lin & Lu, 2011; Fischer & Reuber, 2011.
<ul style="list-style-type: none"> • Prior social media experience • Co-experience 	Lee & Ma, 2012; Lim et al., 2012.	<ul style="list-style-type: none"> • Inhabitat space • Isomorph effects 	Lim et al., 2012.
<ul style="list-style-type: none"> • Expectations • Achievements 	DeAndrea, et al., 2012; Cao & Hong, 2011.	<ul style="list-style-type: none"> • No. of followers • Facebook friends 	Westerman et al., 2012.
<ul style="list-style-type: none"> • Psychological orientation • Self- traits 	Vitak et al. 2011; Kim et al., 2010	<ul style="list-style-type: none"> • Privacy • Platform security • Information accuracy 	Bertot et al., 2012.
<ul style="list-style-type: none"> • Effectuation 	Fischer & Reuber, 2011.	<ul style="list-style-type: none"> • Trends 	Jung et al., 2007.

Table 2.1, continued

Internal		External	
Factors	Source	Factors	Source
<ul style="list-style-type: none"> • Satisfaction in life • Friendship satisfaction • User satisfaction 	Chi, 2011; Kim et al., 2010; Valenzuela et al., 2009.	<ul style="list-style-type: none"> • Teaching situations • External pressures 	Cao & Hong, 2011; 2013.
<ul style="list-style-type: none"> • Self esteem • Group identity • Identity creation 	Ellison et al., 2007; Barker, 2009	<ul style="list-style-type: none"> • Social interaction • Communication • Interactivity • Conversations • Building relationships • Social integration • Collaboration 	Agostino, 2013; Freberg et al., 2013; Lee & Ma, 2012; Bertot et al., 2012; Dabner, 2012; de Vries et al., 2012; Young, 2011; Ellison et al., 2011; Lin & Lu, 2011; Fischer & Reuber, 2011; Weinberg & Pehlivan, 2011; Kietzmann et al., 2011; Java et al., 2009; Ellison et al., 2007; Barker, 2009; Shin, 2009; Baker & Moore, 2009; Dunne et al., 2010; Loving & Ochoa, 2011; Raacke & Raacke, 2008.
<ul style="list-style-type: none"> • Attitude • Perceived behavioral control • Belongingness 	Pelling & White, 2009; Dunne et al., 2010.		
<ul style="list-style-type: none"> • Individual readiness • Perceived risks • Perceived usefulness 	Pelling & White, 2009.		
	Cao & Hong, 2011; 2013.		

2.3 Systematic review of literature

Drawing from the discussions of social media and civic engagement literature, Table 2.2 presents a taxonomy of the factors reported in the literature that both directly influence, or have the potential to influence online civic engagement behaviour. The table also includes past works relating to this stream of study, which are satisfaction in life and virtual social skills. The data were drawn principally from the IS and civic engagement research literature, which includes those studies that investigate the factors and impact of civic engagement and social media, as well as other relevant research that was identified in this chapter as contributing more generally to this study's understanding of online civic engagement. The overall literature encompasses the fields of IS, sociology, psychology, management and business, with some contributed from medical journals. Certain works may have overlapping fields. The section of the social media literature presented in Table 2.2 was published from 2006-2013. These papers were primarily derived from the Web of Science, Business Source[®] Complete, Psychology and Behavioural Sciences Collection of EBSCOhost, ScienceDirect[®] and Emerald databases. These databases consist of hundreds of journals that are categorized as belonging to the aforementioned fields, particularly in IS.

The keywords chosen for the preliminary literature review search were selected from the keywords supplied by the authors of some of the most cited articles in the Web of Science pertaining to civic engagement and social media (examples include Brehm & Rahn, 1997; Shah et al., 2001; Carpini et al., 2004; Helliwell & Putnam, 2004; Valenzuela et al., 2009; Kaplan & Haenlein, 2010; Correa et al., 2010; Gil de Zuniga et al., 2012). These included civic engagement, social capital, social networking sites, Facebook, trust and civic participation. In addition, because of the research exclusivity of civic engagement in social media, the primary focus was on social media.

Nevertheless, the selected factors when examined individually included other types of IS system, mainly on electronic networks. The keywords were searched in the fields of 'topic' and 'title'.

The articles, which were selected from the search results that had used the search terms (keywords), are outlined in Table 2.2. Since different authors may have utilised diverse terms in their research, the researcher decided to use some alternative keywords for each main keyword. These alternative keywords consisted of some synonyms or the subjects under the topic. For example, the keyword 'civic engagement' was used interchangeably with 'civic participation', while 'social networking sites' is part of social media and 'volunteerism' is a form of civic activity in civic engagement. Using this technique facilitated the study to achieve the greatest coverage of the relevant articles while decreasing the likelihood of ignoring some important articles (Dezdar & Sulaiman, 2009). Based on the conditions between keywords, several combinations of the keywords have been utilised; for instance, civic engagement and social media; civic participation and social networking sites; social capital and social networking sites; trust and social capital; and trust and life satisfaction. The selection of the article for inclusion in the compilation was dependent upon the researcher's decision after reading the article title and abstract. If it was determined that the article probably contained information that would be indicative of the factors influencing civic engagement and/or social media participatory behaviour and its impact, then the article was chosen for further analysis.

Table 2.2 classifies the factors influencing online participatory behaviour in the IS and social media related literature as (1) trust propensity; (2) trust in social media; (3) trust in institutions; (4) group incentives and (5) reputation. Another part of the table

represents whether the online participatory behaviour is for civic engagement purposes, such as consumption of political news and have online discussions on social issues. The final part of the table categorizes the impact of online participatory behaviour in terms of (1) satisfaction in life or well-being, and (2) virtual social skills. These factors were also examined in sociology as influencing factors in civic efforts with the majority from the context of social capital; the purpose of such behaviour and its impact. The same sets of factors were also examined in the field of management, business, economics, psychology and medical, mostly in the context of social capital and social exchanges. Certain topics overlapped in fields and were categorised according to the recommended category by the database; by its focus in IS; or to the best of the researcher's knowledge based on the title of the journal.

The importance of trust propensity to be understood is evident across many fields, as depicted in Table 2.2. How trust propensity influences social media civic participation is still under debate. According to Shah (1998), a high level of interpersonal trust does not appear to lead individuals to seek venues for civic participation. In a similar vein, another study found that low levels of trust propensity have led to political activism (Pattie et al., 2003). These analyses are in conflict with the argument made by supporters of trust propensity having a positive relationship between trust and participation (Putnam 1995; Jennings & Zeitner, 2003).

In another study, Lin (2008) point out that trust is needed among community members for better interaction because an online community is not a place where people meet and communicate face-to-face. In other words, trust is a prerequisite factor for successful operation in online communities. For example, when operational rules in online communities are vague, it is required for members to behave responsibly and acceptably

in general. If there is no trust among people in believing in and replying to each other in online communities, there will be a limit to sharing information in quality or in quantity, which will act as a negative factor in long-term operations (Lin, 2008). Under circumstances of trusting each other, it is much more likely for people to help others or ask others for help. This shows that community members share the information and knowledge they have and try to participate actively in an online community activity when there is trust between individuals (Chiu et al., 2006).

Trust is also said to play a crucial role in facilitating new connections between users and is considered as an 'invisible hand' (Dumalo & Ha, 2013, p.3) that weaves and sustains such online connections (Riegelsberger et al., 2005). In certain situations, trust can reinforce the intention of buyers to transact with online vendors (Gefen 2000; Kim & Ahn, 2007) and continue using particular websites (Lin & Lu, 2011). The continuing research on trust propensity over the years indicates that it is as an important factor that cannot be ignored, particularly in relation to the IS and civic engagement studies. The trust propensity literature is further explored in section 2.5.2.1.

This study also includes the importance of understanding trust in the Internet. Thus far, this type of trust has been mainly examined from the IS perspective, and has ignored the understanding of public trust in the social media despite its popularity (see section 2.5.2.2).

Trust in institutions is often studied from the aspect of political trust in the area of citizenship behaviour and social capital in sociology; for example, trust in political institutions, and news media consumption, which have been positively linked to civic commitment (Zuniga & Valenzuela, 2011). Although some social media studies relating

to civic efforts do mention the lack of trust in the government, these studies do not measure the extent of trustworthiness towards the legal system, the police and politicians as has been done in sociology. The importance of trust in institutions cannot be ignored because it is important to maintain social order (Blau, 1964). Recent studies have implied that the lack of trust in institutions can have serious consequences, such as damaged reputation and violent protests (see for example Ali A., 2011; Choudhary et al., 2012). Refer to section 2.5.2.3 for more literature on trust in institutions.

The findings from prior studies have suggested that civic engagement behaviours are spurred by the hope of achieving justice and fairness for the benefit of the participators, for the group or community involved, and, in some cases, for the nation (see for example Harris, 2008; Kumar & Vragov, 2009; Baumgartner & Morris 2010; Ali A., 2011, Bryson et al., 2011; Fenton & Barassi, 2011; Zachary, 2011; Chourdary et al., 2012; Valenzuela et al., 2012; Keller, 2012). In sociology, studies indicate that individuals are likely to participate in civic activities when they are influenced by the belief that the results from their civic efforts will benefit themselves, their family or those they care about (Olson, 1965; Tullock, 1971; Silver, 1974; Seyd & Whiteley, 1992; 2002; Pattie et al., 2003). Others deem that it is a moral obligation or a form of commitment for civic participation (Coleman, 1990; Cheung & Chan, 2000; 2004). These studies suggest that group incentives are essential in understanding participatory behaviour, in particular, civic engagement. In spite of its importance, this factor as an enabler for participatory behaviour has been overlooked in social media studies (see Table 2.1). This research addresses this gap. See section 2.5.3 for an elaboration of the literature concerning group incentives.

In terms of reputation, IS and management scholars have noted that reputation is an essential asset to encourage participatory behaviour in online networks (Constant et al., 1996; Jones et al., 1997; Donath, 1999; Wasko & Faraj, 2005; Bretzke & Vassileva, 2003; Sun & Vassileva, 2006; Farzan et al., 2008). Investigating the impact of reputation on online civic engagement behaviour helps to confirm whether reputation is able to increase one's involvement in addressing social issues via social media. Section 2.5.6 presents the literature on reputation. In a similar vein, despite the importance of virtual social skills emphasized in past works and ability of social media in facilitating social interaction and e-learning (see section 2.8.2), research on virtual social skills remains limited and warrants some attention.

Satisfaction in life has been a popular area of study across many fields. A review of recent social media literature has shown that there have been mixed results pertaining to the contribution of social media in terms of positive or negative outcomes (Valkenburg et al., 2006; Ellison et al., 2007; Baker and Moore 2008; Steinfield et al., 2008; Ko & Kuo 2009; Kramer 2010; Kim & Lee 2011; Lee et al., 2011; Kalpidou et al., 2011; Manago et al., 2012; Pea et al., 2012). The debate of whether social media can produce pro-social effects has resulted in calls for future research (Kim & Lee, 2011) and has been noted to be insufficient in the literature (Lee et al., 2011). Section 2.8.1 further discusses satisfaction in life and social media.

A review of the literature found support for the argument that social media use fosters civic engagement (see section 2.4). Even though there are many reasons for examining online civic engagement (see section 1.2), empirical research in understanding social media usage for civic efforts is limited. Therefore, it is imperative for researchers to continue to develop methodologies to explore online civic engagement (Waite, 2009;

Ward, 2011; Harp et al., 2012). The success of online civic engagement is contingent upon public involvement to voluntarily contribute their efforts, knowledge and time in addressing social issues online. Moreover, individuals need to perceive that extending their civic efforts are worthy, will be of value and not misused. While the use of social media is publicly observable on the web, what is less known and uncertain are the motivations that foster online civic behaviour (Gild de Zuniga et al., 2012); the modes of online civic engagement behaviour (Correa et al., 2010); and the effects on enhancing satisfaction in life and virtual social skills at work. Unless individuals are motivated to integrate civic efforts in their social media norms, online civic engagement and its positive effects on life and at work cannot take place. Therefore, it is important to investigate these less known aspects of online civic engagement behaviour.

Table 2.2 Systematic review of literature

Field	Author(s)	Year	Factors influencing online participatory behaviour					Online participatory purpose	Impact of online participatory	
			Trust propensity	Internet Trust	Trust in institutions	Group incentives	Reputation	Civic Engagement	Satisfaction in life	Virtual social skills
IS	Bülbül	2013		√						
	Kuo et al.	2013							√	
	Nicolaou	2013		√						
	Lucassen & Schraagen	2012	√							
	Al-Kandari & Hasanen	2012						√		
	Lucassen & Schraagen	2011	√							
	Wang & Haggerty	2011								√
	Gil de Zúñiga & Valenzuela	2011			√			√	√	
	Bockstedt & Goh	2011					√			
	Shin	2010	√							
	Bagheri et al.	2009					√			
	Gibson	2009			√			√		
	Utz et al.	2009					√			
	Vance et al.	2008		√						
	Kim	2008	√							
	Farzan et al.	2008							√	
	Wang & Benbasat	2008		√			√			
	Oshri et al.	2007								√
	Fuller et al.	2007			√		√			
	Dinev & Hart	2006			√					
	Lim et al.	2006	√							
	Wasko & Faraj	2005					√			
	Kankanhalli et al.	2005	√				√			
	Pavlou & Gefan	2004	√							
	Gefan et al.	2003	√							
	McKnight et al.	2002			√					
	Ba & Pavlou	2002			√		√			

Table 2.2, continued

Field	Author(s)	Year	Factors influencing online participatory behaviour					Online participatory purpose	Impact of online participatory	
			Trust propensity	Internet Trust	Trust in institutions	Group incentives	Reputation	Civic Engagement	Satisfaction in life	Virtual social skills
IS	Cheung & Lee	2002	√							
	Lee & Turban	2001	√							
	Markus	2001	√							
	McKnight & Chervany	2001		√						
	Pauleen & Yoong	2001								√
	Ba et al.	2001					√			
	McLure Wasko & Faraj	2000				√				
	Hoxmeier	2000					√			
	Clarke	1999		√				√		
Social Media related studies	Steenkamp & Hyde-Clarke	2014						√		
	Mou et al.	2013		√						
	Kim et al.	2013						√		
	Chan & Guo	2013						√		
	Irish	2013								√
	Hampton & Ling	2013							√	
	Freberg et al.	2013						√		
	Valenzuela et al.	2013						√		
	Ellison et al.	2012						√		
	Manago et al.	2012							√	
	Lee & Ma	2012								
	Westerman et al.	2012		√			√			
	de Zuniga	2012						√		
	Gil de Zuniga et al.	2012						√		
	Conroy et al.	2012						√		
Gibson & McAllister	2012						√			
Martinello & Donelle	2012						√			

Table 2.2, continued

Field	Author(s)	Year	Factors influencing online participatory behaviour					Online participatory purpose	Impact of online participatory	
			Trust propensity	Internet Trust	Trust in institutions	Group incentives	Reputation	Civic Engagement	Satisfaction in life	Virtual social skills
Social Media related studies	Valenzuela et al.	2012						√		
	Tang et al.	2012					√			
	Harp et al.	2012						√		
	Lovejoy & Saxton	2012						√		
	Bucher	2012						√		
	Chase	2012						√		
	Keller	2012						√		
	Pu & Scanlan	2012						√		
	Choudhary et al.	2012						√		
	Dabner	2012						√		
	Jaganath et al.	2012						√		
	Tufekci & Wilson	2012						√		
	Vitak et al.	2011						√		
	Kim & Lee	2011							√	
	Kalpidou et al.,	2011							√	
	Lin & Lu	2011	√							
	Ward	2011						√		
	Hampton et al.	2011						√		
	Ali	2011						√		
	Kirk and Schill	2011						√		
	Liang & Scammon	2011						√		
	McCafferty	2011						√		
	Muralidharan et al.	2011						√		
	Angelle & Rose	2011						√		
	Buis	2011						√		
	Liu & Kim	2011						√		
Zhang et al.	2010						√			
Fernandes et al.	2010						√			

Table 2.2, continued

Field	Author(s)	Year	Factors influencing online participatory behaviour					Online participatory purpose	Impact of online participatory	
			Trust propensity	Internet Trust	Trust in institutions	Group incentives	Reputation	Civic Engagement	Satisfaction in life	Virtual social skills
Social Media related studies	Ahmed et al.	2010						√		
	Baumgartner & Morris	2010						√		
	Mandarano et al.	2010						√		
	Wattal et al.	2010						√		
	Avery et al.	2010						√		
	Wattal et al.	2010						√		
	Ko & Kuo,	2009							√	
	Valenzuela et al.	2009	√					√	√	
	Waite	2009						√		
	Kumar & Vragov	2009						√		
	Rajapat	2009						√		
	Schalchlin	2009						√		
	Waters et al.	2009						√		
	Baker & Moore	2008	√						√	
	Raynes-Goldie & Walker	2008						√		
	Steinfeld et al.	2008							√	
	Ellison et al.	2007							√	
Valkenburg et al.	2006							√		

Table 2.2, continued

Field	Author(s)	Year	Influencing factors in civic efforts and/or in the context of social capital					Purpose of behaviour	Impact of civic efforts or studies conducted in:	
			Trust propensity	Internet Trust	Trust in institutions	Group incentives	Reputation	Civic Engagement	Satisfaction in life	Virtual social skills
Sociology	Schoppa	2013						√		
	Taniguchi & Marshall	2012	√					√		
	Taniguchi	2012			√			√		
	Grönlund & Setälä	2012			√					
	Hakhverdian, & Mayne	2012			√					
	Leung et al.	2011				√				
	Kroll	2011						√	√	
	Ahn et al.,	2011							√	
	Lee et al.	2011						√	√	
	Gibson	2009						√		
	Cicognani et al.	2008						√	√	
	Zmerli & Newton	2008			√					
	Brown & Ferris	2007	√							
	Yip et al.	2007							√	
	Parent et al.	2005			√			√		
	Bélanger & Nadeau	2005			√			√		
	Kwak et al.	2004	√					√		
	Cheung & Chan	2004				√		√		
	Helliwell & Putnam	2004	√					√	√	
	Carpini et al.	2004						√		
Pattie et al.	2003	√		√	√		√			
Jennings and Zeitner	2003	√					√			
Bargh et al.	2002									
Subramanian et al.	2002	√								
Hetherington & Nugent	2001						√			

Table 2.2, continued

Field	Author(s)	Year	Influencing factors in civic efforts and/or in the context of social capital					Purpose of behaviour	Impact of civic efforts or studies conducted in:	
			Trust propensity	Internet Trust	Trust in institutions	Group incentives	Reputation	Civic Engagement	Satisfaction in life	Virtual social skills
Sociology	Shah et al.	2001	√					√	√	
	Mishler & Rose	2001			√					
	Cheung & Chan	2000				√				
	Cox & Cadwell,	2000	√						√	
	Putnam	2000	√					√		
	Paxton	1999			√					
	Putnam	1995	√					√		
	Seyd and Whiteley	1992				√		√		
	Coleman	1990				√		√		
	Coleman	1988	√					√		
	Silver	1974				√		√		
	Tulloch	1971				√		√		
	Olson	1965				√		√		

Table 2.2, continued

Field	Author(s)	Year	Trust propensity	Internet trust	Trust in institutions	Group incentives	Reputation	Civic Engagement	Satisfaction in life	Virtual social skills
Management/Business/ Economics	Mendez-Duron	2013					√			
	Smollan	2013	√							
	Roy & Eshghi	2013	√							
	Ashleigh et al.	2012	√						√	
	Bianchi & Andrews	2012	√							
	Rufin et al.	2013		√						
	Kietzmann et al.	2011					√			
	Dunne et al.	2010					√			
	Dolan et al.,	2008							√	
	Helliwell	2006							√	
	Sun & Vassileva,	2006					√			
	Stewart	2003	√				√			
	Helliwell	2003								
	Ahuja & Galvin	2003								√
	Lakhani & von Hippel	2003					√			
	Frey & Stutzer	2002							√	
	Carter et al.	2002					√			
	Adler	2001	√							
	Donath et al.	1999					√			
	Whitener et al.	1998	√							
	Tsai & Ghoshal	1998	√							
	McKnight et al.	1998	√							
	Knack & Keefer	1997	√							
	Jones et al.	1997					√			
Doney & Cannon	1997	√								
Jones et al.	1997					√				
Constant et al.	1996					√				
Mayer et al.	1995	√								

Table 2.2, continued

Field	Author(s)	Year	Trust propensity	Internet trust	Trust in institutions	Group incentives	Reputation	Civic Engagement	Satisfaction in life	Virtual social skills
Psychology/ Medical	Jiranek et al.	2013						√		
	Pea et al.	2012							√	
	Manago et al.	2012							√	
	Park et al.	2011								√
	DiGennaro et al.	2011								√
	Bloch et al.	2010						√		
	Xu et al.	2010	√							
	Wiepking	2010	√					√		
	Albanesi et al.	2007						√	√	
	Smetana et al.	2006						√	√	
	Parson et al.	2006								√
	Diener & Oishi	2005							√	
	Prilleltensky et al.	2001						√	√	
	Tsai et al.	1999	√							
	Diener et al.	1999							√	
	Wrightsman	1991	√							
Rotter	1971							√		
Wilson	1967							√		

2.4 Online civic engagement

There are many different definitions of civic engagement (see for example Verba et al., 1995; Putnam, 2000; Ehrlich, 2000; Shah et al., 2001; Montgomery et al., 2004, Ramakrishnan & Baldassare, 2004; Weissberg, 2005; Hay, 2007; Raynes-Goldie & Walker, 2008). To some extent, civic engagement refers to citizens' individual or collective involvement in addressing issues. In the same vein, the term civic participation has been defined as individual or collective behaviours aimed at resolving social problems in the community (Zukin et al., 2006; Gil de Zúñiga et al., 2012) while activism, according to Denning (2000, p.15), is '...the use of the Internet in support of an agenda or cause'. This includes online actions, such as posting materials on a website, transmitting electronic publications through email, discussing on issues, forming coalitions, and coordinating activities for civic purposes. These works show that there are overlapping terms with civic engagement. As such, this study takes the terms of civic engagement, activism and civic participation to be identical in meaning and interchangeable in use, similar to the case in the works of Kikuchi and Coleman (2012), and Malik & Waglé (2002).

Civic engagement encompasses a variety of forms of political and non-political activity. Common forms of civic engagement are making donations; participating in community work like cleaning the environment; voting; attending community meetings or functions; contributing ideas to social causes; contacting public officials; attending protests, and speeches; signing petitions; serving local organisations; and writing articles concerning community matters. Drawing from popular definitions of civic engagement (Putnam, 2000; Shah et al., 2001; Hay, 2007, Raynes-Goldie & Walker, 2008), this study refers to civic engagement to participation in any activities, individually or collectively, that is aimed at addressing social problems. In this research,

social problems are conditions that have been defined by significant groups as a deviation from some social standard, or breakdown of social organisation that is deemed to be intolerable (Dentler, 1971; Theodorson & Theodorson, 1969). Examples of social problems include crime (The Star Online, 2012; Shipley & Tempelmeyer, 2012), corruption (The Economist Intelligence Unit, 2012; Ernst & Young, 2013); the lack of moral values (Lim et al., 2012; Kutty, 2012; Ismail & Zakuan, 2012) and drugs or substance abuse (Mosher, et al, 2004; Mazlan et al., 2006; Rusdi et al., 2008; Dell et al., 2011). This study uses the terms social problems and social issues interchangeably.

In response to addressing social problems, online civic efforts have taken place on the Internet. Such efforts amount to online civic engagement. In this study, online civic engagement behaviour refers to any individual or collective effort that is aimed to address social issues using social media, such as Facebook, blogs, YouTube and Twitter. With the advent of social media, the public has the opportunity to spread social causes, participate in digital activism in various social issues from community problems to world issues to change perspectives and even policies. Individuals are now empowered with social media tools to force others to listen to what they care about and to demand respect (Kirkpatrick, 2011). The obvious was exemplified in the case of Tunisia, Egypt and Libya where the autocratic leaders were ousted by the voice of many Facebook and Twitter users (Lotan et al., 2010; Dunn, 2011; Khamis & Vaughan, 2011; Tufekci, 2012).

Online civic engagement efforts deploying social media can be seen by the government for managing national crisis situations (Kavanaugh et al., 2012); for improving citizen-government communications (Jaeger et al., 2012); and for internal public sector usage as e-government initiatives (Bretschneider & Mergel, 2010). Portrayals of social media

for online political use by citizens for addressing politics and government are present (Kumar & Vragov, 2009; Baumgartner & Morris, 2010). Examples are evident in Egypt for democracy and justice (Ali A., 2011; Choudhary et al., 2012); for better reach, relevancy, and engagement in India (Rajapat, 2009), on e-democracy in the US (Nam, 2011) and organizing protests in Chile (Valenzuela et al., 2012). In India, the 72-year old social activist, Anna Hazare, who was on a ‘fast unto death’ campaign, went viral with social media and brought thousands to the streets in support to fight against corruption (Visvanathan, 2012). Encounters from Brazil, narrated by McCafferty (2011), found that social media was used for social interaction with high-profile leaders, for self-expression and for political discussions. Labour unions have also deployed social media for their own causes (Fenton & Barassi, 2011, Bryson et al., 2011, Zachary, 2011), while feminist political activism is on the rise with young girls blogging and expressing their political opinions online (see for example Harris, 2008; Keller, 2012). Other studies have empirically found that online political group membership is positively related to offline political participation (Valenzuela et al., 2009; Conroy et al., 2012).

Some researchers suggest that social media tailors to health awareness (Schalchlin, 2009; Buis, 2011; Liang & Scammon, 2011; Ahmed et al., 2010; Avery et al., 2010; Sanematsu, 2011; Bender et al., 2011; Van de Belt et al., 2012, Freberg et al., 2013), including to combat the spread of HIV (Jaganath et al., 2012). Past scholarship has revealed that the networks in social media have emerged as a powerful tool in allowing collaboration and sharing of information in both routine situations (e.g. traffic, climate crises) to the critical (e.g. earthquakes, floods) times of crisis (Starbird et al., 2010; Ali M., 2011; Dabner, 2011; Kavanaugh et al., 2012; Bunce et al., 2012). In Canada, Martinello and Donelle’s (2012) qualitative study on the postings of a group of

University students on Facebook underscored the students' use of this type of social media for environmental advocacy.

The success of online civic engagement is contingent upon frequent public civic participation and a willingness to voluntarily contribute effort, knowledge and time. Moreover, people need to think that their civic efforts are worthy and will be of value despite any negative connotations that have portrayed social media in order for them to decide to invest their resources voluntarily in addressing social issues. While the use of social media is publicly observable on the web, what is less known are the motivations that fosters online civic behaviour (Gild de Zuniga et al., 2012), what are the modes of online civic engagement behaviours (Correa et al., 2010), and their effects on the well-being of users in terms of increasing satisfaction in life and improving their virtual social skills at work. Unless individuals are motivated to integrate civic efforts in their social media norms, online civic engagement and their positive effects on life and at work cannot take place. Therefore, it is important to investigate the aspects of the less known, as mentioned previously. One way to have a broader understanding of civic engagement is to look at the relevant theories for explanation.

2.5 Theories applied in participatory behaviour

2.5.1 Theory of social capital

The first concept underpinning this research is the social capital theory and its relevance in fostering networks concerning outcomes with civic engagement. Social capital has been defined differently and has been adopted by various disciplines. However, to a significant extent all relate back to the accumulation of actual and potential resources available through one's social network (Bourdieu, 1985; Coleman, 1988; Baker, 1990; Bourdieu & Wacquant, 1992; Portes & Sensenbrenner, 1993; Putnam 1995; Burt, 1997;

Brehm & Rahn, 1997; Inglehart, 1997; Nahapiet & Ghoshal 1998; Woolcock, 1998; Knoke, 1999; Adler & Kwon, 2002; Glenane-Antoniadis et al., 2003). The concept of social capital describes the benefits, such as the resources individuals derive from their social relationships and interactions. These resources can take the form of useful information or knowledge (Granovetter, 1982; Paxton, 1999; Wasko & Faraj, 2005), relationship building (Baker, 1990; Ellison, et al., 2007; Briones et al., 2011), or to advocate issues and for coordination of activities (Raynes-Goldie & Walker, 2008). However, social capital can also be conceived in negative terms, such as when non-group members are barred from having access to the same benefits as members (Bourdieu & Wacquant, 1992; Helliwell & Putnam, 2004). However, the impact of social capital is generally perceived to be positive, such as better public health and lower crime rates (Adler & Kwon, 2002), and having a positive effect on the psychological and physical well-being of people (Morrow, 1999; Ellison et al., 2007; Velenzuela et al., 2009).

Putnam's (1995) 'Bowling Alone' popularized the concept of social capital by highlighting the erosion of social capital – community engagement – over the last three decades. In addition, another Putnam (2000) study raised concerns about the nature of civic society per se; are we a less caring society now than before? Whilst the debate on this is complex and broad, it is possible to identify two camps in relation to technology. The first claims that there is behavioural change towards individualism due to the diffusion of technology, such as television and the Internet. This is supported by scholars, such as Gerbner, Gross, Morgan and Signorielli (1980), Putnam (2000), Whang (2001) and Kim, Scheufele and Shanahan (2005), who have laid the blame on technology in general for the decline in community engagement. Conversely, the second camp indicates the positive contributions of technological innovation, which are related

to traditional forms of civic engagement, such as engendering community activity, voting, signing petitions and attending public meetings (Kern, 1997; Bimber, 1998; Denning, 2000; Nie & Erbing, 2000; Kim & Han, 2005; Moy, et al., 2005, Kim, 2007; Briones et al., 2011; Lovejoy & Saxton, 2012).

It is argued that social capital as a theory can be coupled with the diffusion of social media for addressing social problems. According to Castells (2012), the evolution of a networked social movement, organized largely around digital tools and social media platforms, is reshaping civic engagement not only in the case of large-scale civic and political uprisings, but also in the context of daily engagement with personal and public matters. Recent works have shown that social media is the new and promising avenue for civic engagement (Raynes-Goldie & Walker, 2008; Hochheiser & Shneiderman, 2010; Thackeray & Hunter, 2010; Zhang et al., 2010). Based on the literature of the second camp, social capital researchers (Putnam, 1995; Kwak et al., 2004; Kim 2007; Xu et al., 2010) have argued that trust and social interactions have been noted to be the virtuous circle of social capital that can create the context for participatory behaviour aimed at collective problem resolution.

In Information Systems literature, social capital theory has been anchored on three dimensions: structural, relational and cognitive (Nahapiet & Ghoshal, 1998). It has been noted that unlike other forms of capital embodied in machines, objects, or humans, social capital inheres the relations among actors (Kankanhalli et al. 2005; Newell et al. 2004; Wasko & Faraj, 2005). The theory is evident in research on understanding why users are willing to participate voluntarily to share knowledge in electronic networks (Newell et al., 2004; Wasko & Faraj, 2005; Chai et al., 2011); for better project success (Grewal et al., 2006; Singh et al., 2011) and clan control in IS projects (Eng et al.,

2012). The findings from these studies suggest that the rich interaction created by electronic social networks can foster strong cooperation among group members.

2.5.2 Trust factors

Among the key aspects of social capital that can define the context for participatory behaviour is trust (Nahapiet and Ghoshal 1998; Putnam, 2000; Kwak et al., 2004; Kankanhalli et al., 2005; Putnam, 1993; Fukuyama, 1995; Kawachi et al., 1997). Trust can be considered as social capital since it is a form of assets rooted within social relationships that can improve the efficiency of coordinated actions (Kankanhalli et al., 2005). It is a relational aspect that is important and can benefit both the community and its members (Cole, 1990). Members are willing to help other members, even strangers, simply because everyone is part of the collective and all have a collective goal orientation (Leana & Van Buren, 1999). Trust improves the chance for people in bridging and linking social capital. By building ties, even weak ones (among strangers), increases the chances of having the right kind of contacts for various purposes, thus providing access to new information and resources, enhancing people's actual control and improving their ability to solve various problems (Ferlander, 2007). For instance, high levels of trust in society can facilitate faster and wider diffusion of information, which may, in turn, promote healthier behaviours (Yip et al., 2007) and control unhealthy behaviours, such as smoking and alcohol abuse (Subramanian et al., 2002). At the societal level, there might be positive health effects of social capital, through healthy norms being spread and adopted in society, and social control over deviant behaviour (Kawachi et al., 1999). In addition, past research suggests that trust has a positive impact on people's well-being. For example, in a review of over 100 happiness studies, Dolan et al. (2008) found that trust (measured in different ways) was strongly related to happiness. Bjørnskov (2006), who studied on happiness using an international

sample of more than 80 countries, found a positive relationship between generalized social trust and life satisfaction. In the European context, Hudson (2006) found a positive relationship between well-being and trust in institutions, such as the law, the national government, and the United Nations among European member countries.

Trust is an intrinsic part of human nature – the foundation of a healthy psychological development. It is simply defined as the willingness to depend on another with confidence that other people will safeguard our interests. Trust is the belief that the intended action of others would be appropriate from one's own point of view (Mistral, 1996). It indicates a willingness of people to be vulnerable to others due to the belief in their good intent and concern, competence and capability, and reliability (Mishra, 1996).

Trust is a leading factor in community involvement (Putnam, 1995; Kwak et al., 2004; Kim 2007; Xu et al., 2010). When honoured, trust promotes feelings of goodwill between individuals, which, in turn, benefits community. Researchers, Robert Sampson, Steve Raudenbush, and Felton Earls (1997), have shown in their qualitative study based on interviews with thousands of people across hundreds of Chicago neighbourhoods, that, other things being equal, neighbourhoods where residents trust one another have less violence than those where neighbours are suspicious of one another. A Pew Research Center (Wike & Holzwart, 2008) study discovered that in nations where trust is high, crime and corruption are low.

Trust encourages online transactions. Information systems literature has suggested that trust lowers users' perceived risks and uncertainties in encouraging transactions to take place on the Internet, in particular, e-commerce (Lee & Turban, 2001; Cheung & Lee,

2002; McKnight et al. 2002; Pavlou & Gefan, 2004) and even adopting systems (Gefan et al., 2003).

Trust is also essential to democracy, where people must be willing to place political power in the hands of their elected representatives and fellow citizens. Without trust, individuals would be unwilling to relinquish political power to those with opposing viewpoints, even for a short time. They would not believe that others will follow the rules and procedures of governance, or voluntarily hand over power after losing an election. If that trust declines, so does democracy. Examples have been illustrated in the case of Egypt, Tunisia and Libya (section 2.3). Other research on trust has found that countries whose citizens trust each other experience stronger economic growth Knack and Keefer (1997).

Given the level of uncertainty and volatility that is inherent in social and business interactions, trust and risk are pervasive phenomena. Trust enables interactions in data exchange, system adoptions and transactions, thereby minimizing the concern of being taken advantage of (Dirks & Ferrin, 2001; Gefan et al., 2003; Lee & Turban, 2001; Markus, 2001; Cheung & Lee, 2002; McKnight et al., 2002; Pavlou & Gefan, 2004). Such trust can be founded on competence and demonstrate the consideration of interests and goodwill (Nooteboom, 2001). Although different types of trust are distinguished, the matter of how these types influence the use of in exchange social media civic engagement has received limited theoretical attention.

Understanding the role of trust in the community, Information Systems and democracy will enable individuals to appreciate and understand the strengths and effects of each of these types of trust in motivating the modes of online civic participation. Trust has

become the strategy for dealing with uncertain outcomes or future. It is considered to be one of the most reliable predictors for online participatory behaviour (Gefen, 2000) and deserves to be studied further. However, very few empirical analyses have incorporated different types of trust in the context of civic engagement (Taniguchi & Marshall, 2012). Past studies on social media participatory for content contributions utilized a unidimensional view of trust (see for example Baker & Moore, 2008; Hsu & Lin, 2008, Ruffin et al., 2012; Mou et al., 2013). This research extends research on trust and explores the various aspects of trust as they relate to online civic engagement behaviour modes in the Facebook community.

For the aforementioned reasons, this research focuses on one key area of the relational capital in social capital theory, which is trust. The study expanded the understanding of trust into three areas: trust propensity, trust in social media and trust in institutions. This research measures not only the different set of trust beliefs, but also the user's actual actions in the context of online civic behaviour. This provides a real sense of whether trust has a significant impact on online civic engagement behaviour. In particular, this study investigates which forms of trust may increase online civic engagement and through what modes. The insights and effects on different types of trust would enable researchers and practitioners to have a more detailed understanding of the complex trust-related mechanisms influencing the use of social media for civic engagement.

2.5.2.1 Trust propensity

In a comprehensive presentation of trust conceptualization presented by Gefen, Karahanna and Straub (2003, p.62), trust propensity is defined as the 'tendency to believe or not to believe in others and so trust them'. This form of trust is based on a

belief that others are typically well-meaning and reliable.’ (Gefan et al., 2003, p. 62). It is a form of trust at an individual level developed through socialization and life experience (Gefen 2000, Whitener et al., 1998). Trust propensity is sometimes referred to as personality-based trust (Gefan et al., 2003), interpersonal trust or social trust (Taniguchi & Marshall, 2012) and the terms have been applied interchangeably. Other scholars have explained that trust propensity is a personality trait, a stable factor within a person, which affects someone’s likelihood to trust (Lucassen & Schraagen, 2011; 2012).

In the past, studies have used the terms trust propensity, social trust, personality-based trust, disposition to trust, propensity to trust and interpersonal trust interchangeably because the items that measure these constructs are either the same or very similar, often using the same sources (see for example Gefan 2002; McKnight et al., 2002; Gefan et al., 2003; McKnight et al., 2004; Pavlou & Gefan, 2004; Taniguchi & Marshall, 2012). As such, this study also considers these terms to be interchangeable.

Propensity to trust has been shown to be among the most influential factors predicting consumers’ trust in e-commerce participatory behaviours (Lee & Turban, 2001; Cheung & Lee, 2002; Pavlou & Gefan, 2004). When there is a strong propensity to trust, people are more willing to engage voluntarily in sharing information (Dwyer et al., 2007; Shin, 2010). Trust propensity has also been viewed as a key factor that provides a context for cooperation (Tsai & Ghoshal, 1998); effective knowledge exchange (Adler, 2001), and, more importantly, for civic participation (Coleman, 1988; Knack & Keefer, 1997; Inglehart, 1997; Tsai et al., 1999; Putnam, 2000; Cox & Cadwell, 2000; Putnam, 2000; Kim, 2007; Brown & Ferris, 2007).

One explanation of this form of willingness behaviour could be borrowed from that of voluntary participatory behaviour in knowledge sharing studies. When trust is strong, the effort required for voluntary participatory behaviour may not be salient to the participator because they believe that what is shared (such as knowledge) is not likely to be misused by the receiver (Davenport & Prusak, 1998). Conversely, when such trust is weak, contributors may find the effort required for sharing to be salient because they believe that others may inappropriately use what was given. For example, Markus (2001) reported that consultants at Ernst and Young were reluctant and declined to make the effort to contribute knowledge to repositories in situations where trust did not exist. In summary, trust propensity plays a role in an individual's decision to willingly engage in a participatory behaviour. Trustful feelings allow people to feel that their efforts are for a genuine cause and that the perceived risk is low in engaging such voluntary acts.

2.5.2.2 Trust in social media

According to Dinev and Hart, (2006, p.64), Internet trust is 'Trust beliefs reflecting confidence that personal information submitted to enticement beliefs Internet websites will be handled competently, reliably, and safely'. The Internet websites referred to encompass social media sites. Their understanding of Internet trust incorporated trusting beliefs from and following McKnight, Choudhury and Kacmar (2002). McKnight, Choudhury and Kacmar's (2002) 'Institution-based trust' refers to an individual's perceptions of the institutional environment, which, in their study, was in the context of the Internet. Dinev & Hart (2006) renamed it as Internet trust. Since this study's context concerns social media, this study applies the name 'trust in social media' to resemble its boundary.

Trust, according to these scholars (Dinev & Hart, 2006; McKnight et al., 2002), consists of a set of three beliefs – competence, reliability, and safety – that reflect the confidence level that content submitted to Internet websites by an individual will not be used opportunistically. Having confidence in competency is the belief that a trustee has the ability or power to do for a trustor what the trustor needs to be done (McKnight & Chervany, 2001). This aspect of trust has been studied in electronic data exchange investigations, such as in banking networks and other business transactions (Bülbül, 2013; Nicolaou, 2013). Reliability concerns integrity, honesty and sincerity, while safety refers to the belief that information provided to the trustee will be kept safe or held in confidence (McKnight et al., 2002).

In the Information Systems domain, trust research primarily examines how trust affects Information Technology adoption. For example, many scholars have studied the impact of trust on Internet vendors (Gefen et al., 2003; Kim 2008; Lim et al., 2006; McKnight et al., 2002; Stewart, 2003). Such trust has been found to influence users' beliefs and behaviour (Clarke 1999). Additionally, trust in the context of ability, benevolence, and integrity has been used to study trust in websites (Vance et al., 2008). While research provides evidence that trust in another actor (i.e. vendor or recommendation agent) influences individual decisions to use technology for business or work, little research directly examines trust in technology for a civic engagement.

Trust, as a form of ensuring reliability, is no doubt essential for social media users. Users need to know that their messages are delivered. More importantly, users need to feel safe that their information will not be misused. The belief that Internet websites are reliable and safe environments in which to disclose information and that information

will be handled in a competent fashion increases the willingness of users to provide personal information (McKnight et al., 2002).

2.5.2.3 Trust in institutions

Trust in institutions has been defined in various ways, using different terms but having the same or similar underlying meaning. For example, Mark Warren (1999) summarized his view of trust in institutions as ‘to ‘trust an institution’ means that the truster knows the normative idea of the institution, and has some confidence in the sanctions that provide additional motivation for officials to behave according to this idea’ (p. 349). Warren’s term of the normative idea referred to the public’s expectations of both how institutions should treat people and what kinds of outputs institutions should deliver. In this sense, institutional trust is based on a view that public institutions actually operate according to these normative expectations (Grönlund & Setälä, 2011). Following Warren’s (1999) view, trust in institutions, such as the police or justice system depends on the extent to which they fulfil these expectations. In a similar vein, Mishler and Rose (2001, p. 31) referred to institutional trust as ‘the expected utility of institutions performing satisfactorily’ by the public. Others view trust in political institutions as a ‘...central indicator of the underlying feeling of the general public about its polity’ (Newton & Norris, 2000, p. 53).

In a study by Hakhverdian & Mayne (2012), they used the term political trust and explained it in accordance with Levi and Stoker (2000), and Newton (1999) as the ‘faith that the public places in its political actors and institutions not to act in ways that will do them harm’ (p. 741). Paxton (1999) measured trust in institutions based on the confidence levels of individuals. Paxton (1999) viewed such trust as the trustworthiness or the confidence an individual towards ‘generalized others’ (p.99) including the police,

the government and legal system. According to Paxton (1999), this type of trust is similar to Giddens's (1990) notion of trust in expert systems, where 'an actor may not know the person who built their car or their house, but they trust the system of accreditation, regulation, and monitoring in which the person is embedded' (p. 98). To a certain extent, these definitions point to trust in institutions as an underlying level of confidence towards institutions, such as the police, politicians, government and legal systems, in delivering their services to the public. As such, this study operationalizes trust in institutions in accordance to the understanding of trust in institutions by Paxton (1999) because it best represents this notion.

In civic engagement research, scholars have insisted that trust is indispensable for civic involvement among citizens themselves and between citizens and the government (Putnam, 2000; Kwak et al., 2004). Taniguchi (2012) found that, in Japan, institutional trust is positively associated with occasional volunteering, but that social trust is not due to the perception of being monitored by the institutions they trust. In Japan, where its citizens are known to be distrustful of strangers or out-group members, the average level of institutional trust is even lower than that of social trust. However, the willingness of individuals to rely on institutions and experts is likely to reduce the uncertainty entailed in their decisions to engage in civic efforts, particularly to donate money for various causes (Taniguchi & Marshall, 2012).

Other studies on citizen trust towards government evidence the role of trust in building social capital. Parent et al. (2005) suggested that political efficacy is an important determinant of trust as it pertains to e-government. Civic scholars have also offered empirical evidence that political trust affects voting behaviour (Pattie & Syed, 2003; Hetherington & Nugent 2001; Bélanger & Nadeau, 2005; Teo & Strivastava, 2008;

Srivastava & Teo, 2009). Past studies have indicated that the failure of public trust in the government can have serious consequences, such as monetary loss, damaged reputations, and in worse scenarios, citizens will protest for change, as exemplified in the case of Egypt for democracy and justice (see for example Ali A., 2011; Choudhary et al., 2012). In such context, building trust in institutions (the government and the justice systems) is essential to maintain social order (Blau, 1964) via civic engagement. The notion of these studies suggests that the success of fostering online civic engagement among citizens depends on the influence of trust in institutions.

2.5.3 Collective action approach: General incentives theory

In recent years, there have been security attacks and dishonest practices, such as identity theft, phishing attacks and online scams, which have become increasingly prevalent in social networking sites (Howard, 2008; Mills, 2009; Irani et al., 2011; CBSNews, 2012; Filshinskiy, 2013; Dillion, 2013; MyCert, 2013). Despite the dangers and negative commentaries on social media, users appear to be unconcerned about the risks associated with online interactions among strangers. According to one of the world's leading social analytic companies, Socialbakers (2013), the number of users interacting and posting materials on social media remains on the rise. Researchers and online practitioners face an interesting exploration, namely, why people willingly participate in online civic engagement given the uncertainty of the trustworthiness of other users; the inconsistent reputation of social media and the elusiveness of the outcome of users' civic efforts. This question has not yet been explored and remains vague and unsystematic. What is motivating users to use social media for civic efforts fearlessly? By uncovering the factor that motivates civic participatory behaviour will assist practitioners and policy makers to design strategies to attract the virtual community in addressing social issues.

Civic scholars have examined predictors of online civic engagement in the context of political interest and political efficacy (Nam, 2012); and socio-demographic markers (Boulianne, 2009) where Jensen et al. (2007) found that younger generations were more apt to be e-citizens. One group of social media researchers argued that gratification influences the use of social media for information seeking, and social interaction (Jung et al., 2007; Dunne et al., 2010; Raacke & Raacke, 2008). If self-benefiting incentives were the case, then why would citizens take the risk of advocating for a certain issue for which they may not be successful or even get hurt in the process? The rational choice of an average citizen in the general case is to be an inactive 'free rider', reaping the public benefits of other people's efforts should it be successful, while avoiding the private costs. One explanation is based on the theory of rational incentives approach. This theory suggests that such actions could be due to the factor of selective incentives: private personal rewards that the individual can expect to receive only by participation (Olson, 1965; Tullock, 1971; Silver, 1974). In this sense, participation in activism only occurs if some of the benefits of participation could be restricted to those who play an active part and denied to those who free-ride.

In 1992, Seyd and Whiteley introduced the 'general incentives' model of participation in the context of political activism. Their theory is an extended version of the theory of rational incentives approach. It includes a wider range of incentives as part of the decision-making criteria for one to engage in activism (Pattie et al., 2003). In their explanation, participation is a function of costs and benefits (Downs, 1957 cited in Pattie et al., 2003) and different types of benefit, namely, system, selective and group benefits. Examples include one's attachment to an issue or country, sense of duty (system benefits) and selective benefits made up of process benefits (those people receive as a result of participation in the political process); outcome benefits (privatised

advantages accruing as a result of action, such as personally achieving relatively high office); and group benefits (advantages accruing to groups people are concerned about) in the political context (Pattie et al., 2003). This research believes that the general incentives theory can help to explain the phenomenon of online civic engagement behaviour despite the uncertainties portrayed earlier, and argues that incentives, particularly group and system benefits, play a major role in influencing online civic engagement behaviour.

2.5.4 Collectivistic benefit factor: Group incentives (Group and system benefits)

The collectivistic benefit factor is explained using the general incentives theory. People are more likely to be influenced by the benefits they obtain for themselves or their family, the groups they care about, the attachment they have to an issue and the sense of duty or obligation for the nation. According to Coleman (1990), commitment represents a duty or obligation to engage in future action and arises from frequent interaction. Although commitment is often described as direct expectations developed within particular personal relationships, it can also accrue to a collective one. Commitment to a collective, such as an electronic network of practice, conveys a sense of responsibility to help others within the collective on the basis of a common goal or shared membership. Prior research finds that in an organisational electronic network, individuals posting valuable advice are motivated by a sense of obligation to the organisation (Constant et al., 1996). In addition, findings from extra-organisational electronic networks suggest that individuals participate in networks due to a perceived moral obligation to pay back the network and the profession as a whole (Wasko & Faraj, 2000). Therefore, individuals participating in an electronic network of practice who feel a strong sense of commitment to the network are more likely to consider it a duty to assist other members.

In civic literature, Cheung and Chan (2000) suggested that voluntary behaviour, such as giving, is deemed to be a moral obligation by the volunteer. Citizens have also taken politically inclined civic actions using social media, although not explicitly discussed, for advocating justice and democracy (Kumar & Vragov 2009; Baumgartner & Morris 2010; Ali A., 2011, Chourdary et al., 2012; Valenzuela et al., 2012); against corruption (Harris, 2008; Keller, 2012) and for advocating the rights of labour unions (Fenton & Barassi 2011, Bryson et al., 2011, Zachary, 2011). Such civic engagement behaviours are spurred by the hope of achieving justice and fairness for the benefit of the participators, for the group or community involved, in some cases, for the nation. In a similar vein, it can also be said that since the civically engaged are often more socially connected, they are likely to be faced with more opportunities (benefits) for themselves and groups that they care about, such as their family and friends.

2.5.5 Theory of social exchange

The social exchange theory is one of the renowned and influential theories that investigate the dynamics in social interactions (Benbya & Belbaly, 2010). This theory by Blau (1964) posits that individuals engage in social interaction based on an expectation that, in some way, it will lead to social rewards or resources, referred to as individualistic benefits in this study. These benefits may include approval, reputation, respect, enjoyment, honour, and friendship, which are the currency of social exchanges. The social exchange theory has been used recently in the field of Information Systems at both the individual and organisation levels to investigate phenomenon, such as knowledge sharing (Kankanhalli et al., 2005; Wasko & Faraj, 2005; Liang et al., 2008); software development (Benbya & Belbaly, 2010); use of social networking sites (Chen, 2013) and system evaluation and use (Gefen & Ridings, 2002; Son et al., 2005). The tenets of the social exchange theory have an implication for the current study. Social

media usage, particularly in social networking sites, implies active participation in social interactions with the online community. Therefore, the social exchange theory is relevant to the studies of social media use for civic efforts. Online civic engagement primarily occurs when individuals are motivated to access the social media sites, review the issues and questions posted, follow the shared links for information, search for fuller versions of news, choose those postings they are able and willing to participate in, and take the time and effort to formulate and post a response to the issues selected. Although civic participation may take on a variety of forms, the focus in this study is in one key aspect – the frequency of civic participation in addressing prevalent social issues – in five different modes: collection of information, publication of information, dialogue, coordination of action and lobbying decision makers.

In order to participate in civic engagement, individuals must think that their engagement in social issues and contribution to others will be worth their time and effort and that some form of value will be created, with expectations benefiting some of that value for themselves. In this sense, it is somewhat similar to the motivations for voluntarily participatory behaviour in electronic networks (Wasko & Faraj, 2005; Nahapiet & Ghoshal, 1998). These individualistic benefits are more likely to accrue to individuals who actively participate and help others (von Hippel & von Krogh, 2003). Thus, although there is an absence of personal acquaintance, similarity, or the likelihood of direct reciprocity among online users, the expectation of personal benefits can motivate social media users to engage in social issues.

2.5.6 Individualistic benefit: reputation

Reputation is defined as a measurement of ‘one’s character, skills, reliability, and other attributes important to exchanges’ (Jones et al., 1997, p. 932). This understanding of

reputation has been examined in electronic networks participatory behaviour (see for example Sagers et al., 2004; Wasko and Faraj, 2005). The current study applies the social exchange theory in predicting online civic engagement behaviour. Through the lens of the social exchange theory, this research has identified reputation as the individualistic benefit to determine individual use of a social media site for civic efforts.

The social exchange theory suggests that individuals engage in social interaction based on an expectation that it will lead in some way to social rewards, such as approval, status, and respect. This suggests that one potential way an individual can benefit from active participation is the perception that participation enhances his or her personal reputation in the network. This study considers reputation to be interchangeable with identity and image (see for example Kankanhalli et al., 2005).

Jones et al. (1997) noted that reputation is an essential asset that an individual can leverage to achieve and maintain status within a collective network. The results from prior research in participatory behaviour on electronic networks are consistent with social exchange theory and provide evidence that building reputation is a strong motivator for active participation (Donath, 1999; Wasko & Faraj, 2005). In an organisational electronic network setting, the opportunity to improve one's reputation provides an important motivation for offering useful advice to others (Constant et al., 1996).

Past scholars have indicated that reputation is socially ascribed. It reflects the collective belief about the individual, group, or role (Carter et al., 2002; Bagheri et al., 2009). Previous studies on reputation have largely focused on e-commerce (see for example Ba & Pavlou, 2002; Fuller et al., 2007; Bockstedt & Goh, 2011), information-sharing

communities (Carter et al., 2002), and reputation systems or vendor reputation (Hoxmeier, 2000; Wang & Benbasat, 2008; Utz et al., 2009) but have been sparse in the social media context (as indicated in Table 2.2), particularly in the social networking context (Dumlao & Ha, 2013). Thus far, only one particular study investigated and found that reputation was an incentive for content contribution on YouTube (Tang et al., 2012).

In a study of extra organisational electronic networks, scholars found that individuals perceived that they gained status by posting regularly and intelligently (Lakhani & von Hippel, 2003). Moreover, there is some evidence that an individual's reputation in online settings extends to one's profession (Stewart, 2003). Thus, the perception that participating in social issues will enhance one's reputation and status in one's profession or social circle may motivate individuals to contribute their valuable, personal time and knowledge to others in the network.

The study of reputation in a social media and civic engagement context is important for several reasons. First, past literature suggests that reputation encourages online participation or content contribution in online networks (Donath, 1999; Wasko & Faraj, 2005; Bretzke & Vassileva, 2003; Sun & Vassileva, 2006; Farzan et al., 2008; Tang et al., 2012). Second, there is significant variability in individual commitment and in the quality of contribution or work produced (see for example Fitzgerald, 2006). Third, among the content contribution works in IS studies, is the belief that such participation demonstrates individual competence and skill and gains peer recognition (see for example Lerner & Tirole, 2002; Stewart, 2003; Stewart & Gosain, 2006). Examining the impact of reputation on online civic engagement would enable practitioners to have

a deeper understanding concerning how reputation is able to enhance public involvement in social media civic participatory efforts to address social issues.

2.6 Frameworks for understanding online civic engagement modes

An examination of Denning's framework of Internet activism suggests that individuals use the Internet in support of an agenda or cause in which they believe. This includes online actions like setting up websites, surfing the web for information, posting materials on a website, transmitting electronic publications and letters through email, and using the Internet to discuss issues, form coalitions, and coordinate activities. Although some forms of activities do overlap with each other. Denning (2000) categorized these civic efforts into five modes: collection of information; publication of information; dialogue; coordination for action and lobbying decision makers.

In 2010, Thackeray and Hunter developed a conceptual framework for integrating technology with youth advocacy efforts to affect social change and influence social determinants of health as a social issue. The framework posits that youth advocates can use cell phones and SNS for 1) recruiting people to join the cause, 2) organizing collective action, 3) raising awareness and shaping attitudes, 4) raising funds to support the cause, and 5) communicating with decision makers. Shah et al. (2005) theorized a causal model of Internet effects on civic participation and then investigated the role of the Internet as both a source of information and a sphere of political expression. They relied on national data from a two-wave panel survey around the election of 2000.

The content analysis of Waters, Burnett, Lamm and Lucas (2009) of 275 non-profit organisation profiles on Facebook revealed that Facebook was mostly used for the disclosure and dissemination of information and for the public to get involved. In a

qualitative study, Ward (2011) contributed to an understanding of how online spaces, and, in particular, the adaptation to Web 2.0, reflect offline views towards citizenship, a particularly important focus in an environment in which there is increasing concern concerning how to reach youth via technology. Facebook and Twitter can still be used primarily as a broadcast medium for online citizenship. Another study, in which the American Red Cross was interviewed to explore the use of social media in communicating with the public, found similar findings, such as having two-way communication using social media (Briones et al., 2011).

Valenzuela's (2013) study on the use of social media concerning the protest behaviour of citizens in Chile had a similar framework to that of Lovejoy and Saxton (2012). Valenzuela's (2013) framework had three civic modes: information (social media as a source for news), opinion expression (using social media to express political opinions), and activism (joining causes and finding mobilizing information through social media). This study's findings suggested that the higher usage of social media platforms was positively linked to the more frequent use of social media for information, opinion expression, and joining social causes.

An analysis of the frameworks and literature on online civic engagement suggests that there appears to be an overlap of the civic activities in the categories suggested by scholars. However, the data suggest that the activities can generally be grouped into five modes: collection of information, publication of information, dialogue, coordination of action and lobbying decision makers. Examples are tabulated in Table 2.3.

There appears to be a scarcity of frameworks on online civic engagement, particularly in understanding the social media phenomena for civic efforts. Most of the online studies

provide frameworks that explain politically based activism (Table 2.3). Many non-politically related civic participation in social media research were found to be qualitative studies, such as case studies and narrations. These are mostly concerned with the experiences of creating awareness and engaging in political and non-political issues without referring to a specific framework or model (see examples in Figure 2.1).

Table 2.3 Analysis on the modes of online civic engagement from past literature

Authors(s)	Year	Online Civic Engagement Modes (Internet & Social Media)				
Denning	2000 *P	Collection of information	Publication of information	Dialogue	Coordination of action	Lobbying decision makers
Price et al.	2002 P			Online forums for debate		
Shah et al.	2005 P	Online information seeking	Interactive civic messaging (via e-mail) e.g. discussed politics, contacted a politician, tried to recruit someone to volunteer, used e-mail to organize community service.			
Waters et al.	2009		Information dissemination			Involvement
Baumgartner & Morris	2010 P	Get news				
Thackeray & Hunter	2010		Recruiting people to join the cause		Organizing collective action, raising funds to support the cause	Communicating with decision makers.
			Raising awareness & shaping attitudes			
Ward	2011 P	Information provision				
Briones et al.	2011		Distributing information	Dialogue		Volunteer engagement, Engaging donors
Gil de Zuniga et al.	2012 P	News media use, subscribe to political listserv	E-mail political messages			online political participation: sign up as a volunteer, make a campaign contribution, contact politicians
Conroy et al.	2012 P	online news gatherers				
Lovejoy & Saxton	2012	Information	Information & communication		Action	
Valenzuela	2013 P	Information	Opinion expression		Activism	

* Note: P - political type of civic engagement

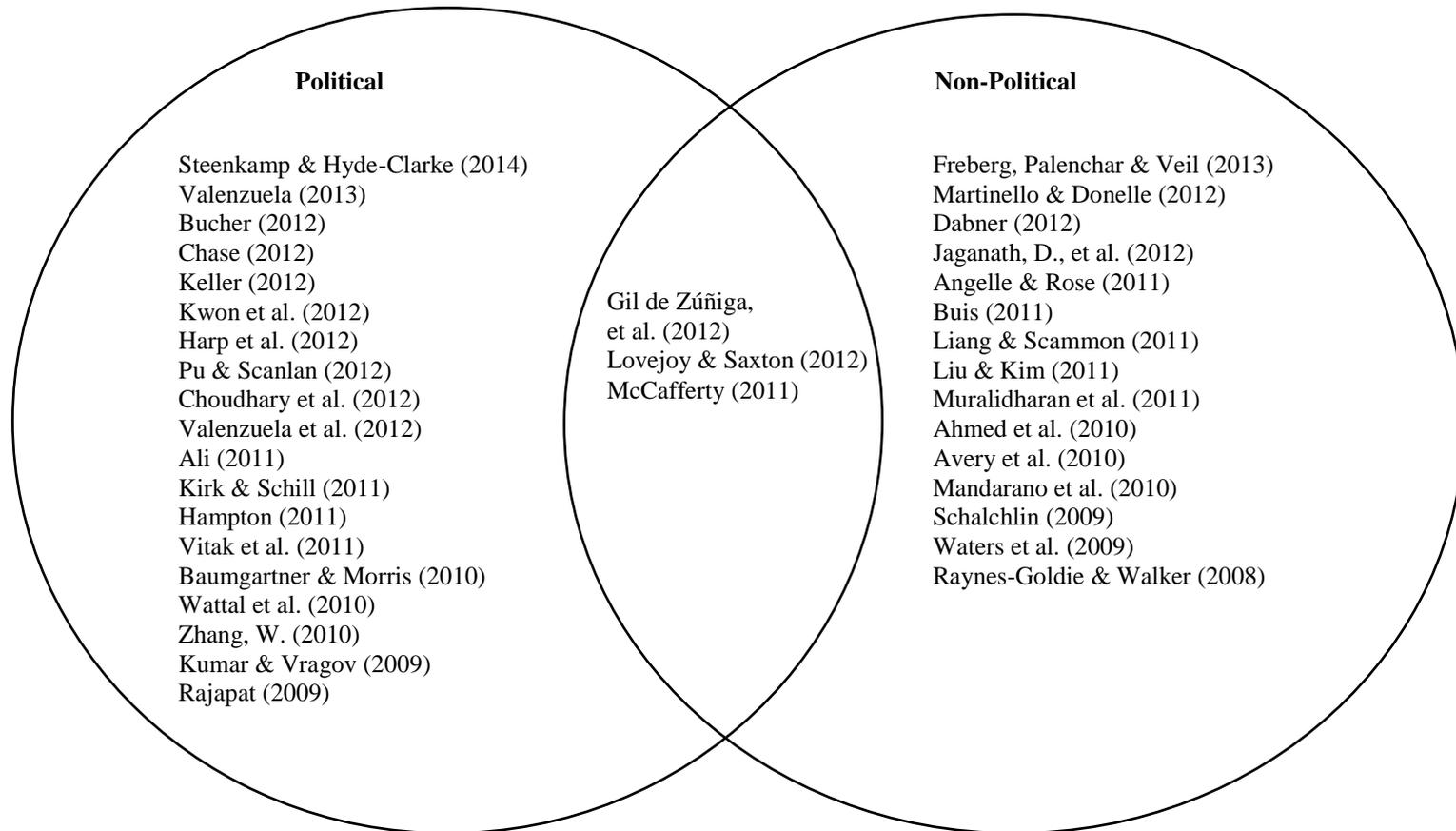


Figure 2.1 Venn diagram on social media related civic engagement studies

2.7 Modes of online civic engagement behaviour

2.7.1 Collection of information

The collection mode of Denning's (2000) framework explains that the Internet is used like a large online library by activists to browse for information. It is like a large digital database that houses information, pointers and guidelines for effective Internet usage. In this study, collection of information is defined as reading and/or searching for information pertaining to social issues using social media.

Social media, such as Twitter, Facebook, Flickr, YouTube, have made a staggering amount of information available online (Kavanaugh et al., 2012). For example, there were about 300 billion tweets sent in total as of October 2013 (Smith C., 2013) while YouTube (2013) has reported a total of 100 hours of video are uploaded to YouTube every minute. As of June 2013, Facebook has 1.15 billion active monthly users (Facebook.com, 2013), making it the most visited social media site (DeSilver, 2013). Deep reaching information are readily available for activists to tap into and leverage for improving society. The advent of the Internet, in particular the social media, has allowed its audience to access news and search for information, filter, evaluate, access and react to news by posting their comments (Tewksbury & Althaus, 2000; Diddi & LaRose, 2006; Dunne & Rowley, 2010) quickly and easily. Seeking information and monitoring helps the public to stay informed about the various perspectives, sentiments, feedback, and insights and even managing public input and contributing feedback to an issue of interest (Kavanaugh et al., 2012; de Zúñiga, 2012) and more importantly, to address social problems. For example, governments from various countries have requested information from Facebook needed to assist in official investigations, including criminal cases such as robberies or kidnappings and national security matters (Facebook, 2013a).

In some aspects in the traditional mainstream media, what the readers are exposed to is news that is mainly determined by editors who have control on daily news flow (Lee & Ma, 2012). In these instances, the news that reaches its audience using traditional media is regulated and monitored unlike in social media where users are able to voice their opinions freely unless access to such sites is regulated by the government. In such cases where filtering or censorship is apparent in traditional mainstream media, users have an alternative to validate the veracity of reports with an online social experience, where users can harness their social networks on social media platforms to read other people's postings and views in an attempt to seek the 'truth'. Despite the collection of information as an important element in civic news, the limitations of previously available research methods have left researchers with an incomplete understanding of news audiences and their exposure patterns (Tewksbury, 2003). As such, this study addresses this limitation by deploying a mixed methods research design in investigating the modes of online civic engagement.

2.7.2 Publication of information

Publication of information in this study refers to constructing websites and/or publishing materials on social issues via emails, postings of links, messages, images and articles using social media. While social media have the similar function as traditional main stream media, such as newspapers, to report news to readers, there is some variance between social media and traditional media in terms of the relationships between its readers and news. The first difference is that the users of social media have the ability to actively participate in generating news content by submitting or sharing links of news and stories from various sources (Szabo & Huberman, 2010). One common practice in social media is to re-circulate already available online news items (see for example Kwon et al., 2012). This practice known as 'audience gatekeeping' by

Shoemaker and Vos (2009), in which users ‘pass along already available news items and comment on them’ (p.113) based on the user’s own set of beliefs or criteria about the newsworthiness.

At the same time, such larger, diversified networks in social media will be able to bring more mobilizing information for participants (de Zúñiga, 2012). Much of the scholarship on activist websites, and of activists in general, have positioned social media as providing an important communication path for individuals, and a practical means for conveying civic messages and information to the public (Wattal et al, 2010; Waters et al., 2010; Pu & Scanlan, 2012; Lovejoy & Saxton, 2012). As such, social media on the Internet can be used for publication to advance a specific cause or agenda. Groups and individuals can construct websites like blogs for discussions and have social networking site accounts, such as Facebook, to post events on timelines, or send emails to newsgroups or create posts on weblogs. Such websites in this sense serve as a platform to gather supporters, potential supporters, and other online audiences.

2.7.3 Dialogue

The third mode of Internet activism, according to Denning (2000), is that the Internet serves as a social space for both public and private dialogue on issues of concern. In this study, dialogue refers to using social media to share opinions on public matters in a conversational manner. For instance, dialogue in the form of threads in discussions can be used to debate or comment on the latest issues, to influence the actions of others, or to answer questions. At times, the Facebook postings move beyond the provision of information and links to include creative problem-solving, discussions and debate (see for example Harris, 2008; Witschge, 2008; Mandarano et al., 2010; Martinello, & Donelle, 2012; Young et al., 2012; Valenzuela, 2013; Steenkamp & Hyde-Clarke,

2014), which are free from geographical and time constraints. Evidence has also shown that public forums in online settings bolster civic knowledge, such as political affairs (Price et al., 2002). Such dialogues may assist in fostering new policy decisions and influencing public opinion. Deep discussion among citizens about their specific needs and interests is of paramount importance if active citizenship behaviour is desired (Culver & Jacobson, 2012). Further, it is noticeable that dialogue type messages on websites also attempt to foster a relationship among community members via ‘bonding’ messages, such as ‘it was really talking you’ and acknowledgement postings. These kinds of dialogue appear to bridge ties in the context of social capital.

2.7.4 Coordination of action

Coordination of action is another way in which activists use the Internet. The Internet aids in the decision making process by enabling individuals to post event details or distribute plans for mobilizing the actions of the group and coordinate schedules, as explained by Denning (2000). Users can make necessary arrangements without regard for the constraints of time and geography and at a low cost, which encourages the use of the Internet, in particular, social media (Kaplan & Haenlein, 2012). In this study, coordination of action is refers to forming coalitions, coordinating and/or organizing activities that address social issues using social media. Examples of online coordination of action for civic activities include communicating plans via emails, posting scheduling messages (see for example Denning, 2000; Shah et al., 2005; Thackeray & Hunter, 2010; Lovejoy & Saxton, 2012; Valenzuela, 2013). Other evidence that point toward the use of social media as a platform for coordinating civic actions include the planning of protests (see for example Choudhary et al., 2012; Tufekci & Wilson, 2012; Valenzuela, 2012).

2.7.5 Lobbying decision makers

Advocacy, at its most basic level, is communication. It is one person or a group of people sending messages for the purpose of persuading or influencing others. Whether or not institutions and policy makers solicit their input, individuals, in particular, activists can use the Internet to lobby decision makers (Denning, 2000). In this study, lobbying decision makers refers to a social media effort that calls for a response and/or to pressure authorities in charge to address a social issue.

Various tools aid with the communication process, technological advances, including software and associated devices, are expanding the communication options of advocates. With these options comes the potential to make advocacy efforts more effective and efficient (Thackeray & Hunter, 2010). In this mode, the Internet is used for lobbying decision makers by asking individuals to ‘do something’ to support the cause, whether it is to join a movement, to post an image, to email authorities, sign petitions or even fax their concerns to influence change. For example, the two cases that exhibited online protest against the Chinese government land expropriation have demonstrated that the Internet has greatly contributed to and is likely to fuel future grassroots collective action in China (Pu & Scanlan, 2012). Online petitions, postings of images, email complaints to authorities may assist in social change to modify existing policies or even foster new ones, but, more importantly, to demonstrate that the concerns of the public needs of social problems must be acknowledged. Based on the literature presented, this study asserts that social media users would use social media in these five modes to alleviate social problems.

2.8 Effects of civic engagement and social media usage

2.8.1 Satisfaction in life

Diener, Emmons, Larsen and Griffin (1985, p.71) referred to life satisfaction as ‘a cognitive, judgmental process’. They followed the understanding and definition provided by Shin and Johnson (1978) who defined life satisfaction as ‘a global assessment of a person’s quality of life according to his chose criteria’ (p.478). It is a hallmark of subjective well-being that centres upon an individual’s own criteria, not of others, particularly the researchers’ criteria (Diener, 1984; 1985). In this study, it is acknowledged that there are various terms to reflect satisfaction in life. For example, subjective well-being has come to be labelled as life satisfaction (Diener, 1984). Following the literature of Liang et al. (2012), Leung et al. (2011), Diener and Tov (2007), Bjørnskov (2003), Frey and Stutzer (2002), this study uses the terms ‘satisfaction in life’, ‘subjective well-being’, ‘quality of life’, ‘happiness’, ‘life satisfaction’, and ‘well-being’ interchangeably.

The pursuit of happiness is an important personal goal that has attracted the attention of many social scientists across various disciplines around the world. Studies have examined the characteristics or predictors of what makes a person happy or satisfied with life (Wilson, 1967; Diener et al., 1999; Frey & Stutzer, 2002) Examples include being healthy, having a good education, well-paid, being extrovert, optimistic, religious, married, having high self-esteem, modest aspirations among other factors. According to Wandersman and Florin (2000), contributions given to the community through participation imply an aspiration for life and are indicative of individuals’ well-being. Based on all these studies, it can be suggested that the positive emotions derived from such factors enhances satisfaction in life. Supporting this notion are researchers who argued that participating in civic activities, such as social movement or community

work, enhances positive developmental outcomes (Gamson, 1992; Prilleltensky et al., 2001; Smetana et al., 2006). Although there is leading evidence concerning the role of civic engagement in improving the quality of life, recent research has proposed that social capital may be a vital factor that has been overlooked (Diener & Oishi, 2005; Helliwell, 2006) and is an important piece in predicting happiness (Leung et al., 2011). The evidence regarding the link of social capital to health and well-being varies depending on the conceptualization and measurement of social capital, and demographics of the study population (Yip et al., 2007). Hence, this study also aims to examine the relationship between satisfaction in life and one dimension of social capital: civic engagement among working adult social media users.

The first theoretical approach that demands a more nuanced study of the social context of well-being proposed here is the social capital theory. Past studies have elaborated on Coleman's (1998) idea on social capital and suggested two main forms of information channels: civic engagement, such as participation in organisations, associations, and membership in voluntary organisations (Putnam, 2000; Bjørnskov, 2006); and social relationships through contacts with family and friends (Lelkes, 2006; Powdthavee, 2008). In the past decade on satisfaction in life research, a range of studies has empirically confirmed the link between social capital and subject well-being (Bargh et al., 2002; Helliwell, 2003; Helliwell & Putnam, 2004; Bjørnskov et al., 2008; Kroll, 2008; Dolan et al., 2008; Cicognani et al., 2008; Ahn et al., 2011). Nevertheless, there have been contrasting findings between civic engagement and satisfaction in life. For example, Leung et al. (2011) found that engagement in politically related civic activities was negatively related to satisfaction in life. A possible explanation given for this result is that people who actively searched for civic issues may have become more aware of problems around the world, and, hence, are likely to be less happy. Alternatively, it

could also be that they will only seek for information on an issue when they become concerned about it. As such, these cases would support Putnam's (2000) idea that, on the whole, today's citizens are apathetic about the world around them. In another research, despite mothers having the highest rate of civic engagement, they did not seem to benefit from formal social capital in terms of psychological rewards usually associated with volunteering, indicating a 'motherhood penalty' (Kroll, 2011). The study found that mothers seemed to have a guilty conscience because they felt that they might be neglecting family responsibilities when they spend time in voluntary work.

In social media and Internet research, a number of studies have explored how social media might be related to well-being with mixed results (Valkenburg et al., 2006; Ellison et al., 2007; Baker & Moore, 2008; Steinfield et al., 2008; Kramer, 2010; Ko & Kuo, 2009; Kim & Lee 2011; Lee et al., 2011; Kalpidou et al., 2011; Manago et al., 2012; Pea et al., 2012). Recent works have suggested that spending a lot of time on Facebook is associated with low self-esteem (Kalpidou et al., 2011) and chatting or texting online is associated with negative socio-emotional outcomes (Pea et al., 2012). In 1998, Kraut et al. suggested that Internet communication had a negative effect (depression and loneliness). However, in contrast, their subsequent study in 2002 suggested that the negative effects dissipated. Their sample in 2002 generally experienced positive effects (increased well-being) of using the Internet because access to the Internet has increased since 1998 and people could socialise and communicate with ease.

On the basis of positive outcomes, communicating personal information, thoughts, and feelings with other people on blogs enhances subjective well-being (Ko & Kuo, 2009; Baker & Moore, 2008). In documenting the beneficial effects of social media on young

users' lives, several studies have found a positive association between Facebook use and life satisfaction. For instance, past scholars (Ellison et al., 2007; Steinfield et al., 2008; Manago et al., 2012) have reported a positive relationship between Facebook user's social capital, particularly benefiting by building ties and gaining social support while the number of Facebook friends (Kim & Lee, 2011) and amount of self-disclosure on SNSs also have a positive association with subjective well-being (Lee et al., 2011). On a more neutral note, in a study on Friendster and MySpace usage, Valkenburg, Peter and Schouten (2006) found that positive feedback enhanced adolescents' self-esteem while negative feedback decreased their self-esteem. As such, researchers have indicated that an individual's social capital, the resources accumulated through the relationships among people, is one of the most important sources of well-being. Thus, this study explores the relationship between the modes of civic engagement using social media and satisfaction in life.

As social media usage continues to expand its technological capabilities and global penetration, one pressing question emerges: Does social media for civic engagement have a positive or negative association on one's satisfaction in life? Calls for future research in social media in relation to their satisfaction in life levels emphasize the need to look into this matter (Kim & Lee, 2011) as such studies are insufficient (Lee et al., 2011). This study addresses such questions and the call for future research.

2.8.2 Virtual social skills

One of the contributions of social media tools and approaches, based on the Web 2.0 paradigm, is that it offers educational affordance in that it can support social interaction, e.g. sharing, facilitating e-learning, collaborating and communicating among its users (Cole, 2009; Dohn, 2010; Leino et al., 2012; Vuori, 2012). Many organisations are

already benefiting from using forums to discuss issues and share ideas, blogs as learning journals, wikis as a focus for group collaborative projects, not to mention the use of podcasts and videos as a means for sharing research. Another example is the use of micro-blogging services, such as Twitter and Yammer to quickly update peers on new developments and debating new insights on issues on Facebook and YouTube.

With that in mind, the notion of the virtualization of society has become much more prevalent as more organisations start to implement information and communication technologies (ICTs), particularly with the use of social media to assist communication and collaboration to address various issues. In the workplace, virtual work takes place from simple emails to complicated distributed transaction applications among various global teams. Indeed, virtual work is an emerging and a growing component of the day-to-day work of many workers and has somewhat changed the nature of communication with colleagues and customers. While the traditional way of teamwork is characterized by immediate and automatic personal (face-to-face) interactions between team members, communication on virtual teams is often reduced and cue-deprived (Axtell et al., 2004; Golden & Raghuram, 2010), providing additional challenges for being aware of and acting according to norms that vary across cultures (Townsend et al., 1998; Ellingson & Wiethoff, 2002; Duarte & Snyder, 2011). In business studies, scholars have concurred that social interaction is a critical factor for successful virtual operations as they can improve cohesiveness and facilitate collaboration (Pauleen & Yoong, 2001; Ahuja & Galvin, 2003; Oshri et al., 2007). This creates a necessity for developing and enhancing the virtual social skills of employees to ensure operations run smoothly in the business via clear online communication skills.

The term virtual social skills in this context is defined as a user's ability to build social relationships with others on the Internet. It is about the knowledge ('know what') and the skill ('how to') components of competence in online settings (Wang & Haggerty, 2011). Even though social skills are seemingly a common element in the daily face-to-face routine, it is important to realize that many conventional skills are not applicable in virtual settings (Jarvenpaa & Leidner, 1999). Virtual social skills recognise the differences in social activities between virtual settings and traditional settings. For example, one needs to have the knowledge and skill to comprehend and interpret a series of text expressions (:~) and emoticons (e.g. ☺) or the use of upper case letters and exclamation marks (!!!) in order to grasp emotions that people convey. These social protocols constitute an essential part of an individual's capability to interpret them in order to perform well in virtual settings.

As individuals rely more and more on social media applications to be connected with colleagues and friends, customers are not only expecting interactions among their personal networks but they are also expecting a similar level of interactivity with their business counterparts (Rainie et al., 2011). This shift in expectations is challenging businesses to deploy new technologies, such as social media to facilitate customer-firm interactions. More importantly, with the emergence of 'Social Customer Relationship Management', defined as 'the integration of traditional customer-facing activities including processes, systems, and technologies with emergent social media applications to engage customers in collaborative conversations and enhance customer relationships' (Trainor et al., 2013, p.1), firms need to ensure that employees have the right virtual social skills to manage customers online. Perhaps, more than ever before, effectively managing online customer relationships has the potential to dramatically influence firm

performance. This is because these applications can increase customer engagement and the value created from those interactions (Trainor, 2012).

In the same vein, during the process of online management of customers or colleagues, an employee's soft skill Emotional Quotient (EQ) becomes an important part of their individual contribution to the success of a firm. Many firms have included this aspect in their training programmes to instil employees with soft elements, such as dependability and conscientiousness, which can yield significant non-investment returns for the firm (Fiehl, 2012). From this aspect, to some extent, developing and enhancing virtual social skills have become core competencies for employees, particularly those working in online sales or customer service.

As so much of what businesses and people learn comes through mutual problem-solving and the sharing of experiences with one another (Shepherd, 2011; Chau & Xu, 2012), it can be posited that individuals can improve their virtual social skills in a communicative and collaborative environment, such as social media. While there may be many types of online content in social media, one of the healthier activities emerging on social media is online civic engagement. Such online civic behaviours include various communication and collaboration processes with a diverse group of people to address and resolve social issues. For example, doctors present health-related information in their blog posts (Denecke et al., 2009); individuals express their concerns in the blogosphere to health-related issues (Kolk et al., 2012) and the use of Facebook and Twitter to generate collection actions for justice and democracy in Egypt (Ali A., 2011; Choudhary et al., 2012; Youmans & York, 2012).

Given technology's ubiquity, working individuals are exposed to many technologies outside their work (e.g. social media), which provides more opportunities for people to

learn and practice how to work, if not, communicate better with others. As such, one of the arguments of this study's model is that online civic experiences in addressing social issues will help people build social competence, in particular, virtual social skills, to perform effectively in their present working virtual settings. Examples of virtual social skills include being keenly aware of how one is perceived by others and being good at making oneself visible with influential people in one's organisation.

While there are studies that support the idea that technologies, such as knowledge networks and social media can improve workers' performance (Sinan et al., 2012; Schultz, 2012; Lynn, 2013), and notwithstanding that there have been calls for future research to address this gap, studies on individuals' online activities outside the context of work (e.g. using social media for communication and collaboration) and the capability thereof to transcend to the virtual workplace context is sparse (Wang & Haggerty, 2011). This study fills this gap and believes that online experiences in addressing social issues will have a positive impact on their virtual social skills in relation to work.

2.9 Chapter summary

This literature review presented an overview of the factors influencing social media and civic engagement participation. First, a review of the social media literature discussed the popularity of social media and the motivations of its usage. This literature identified that the majority of the factors can be categorized as either external or internal factors. These factors, however, did not contribute comprehensively to the contributions made in terms of civic efforts. This line of literature did not consider civic engagement in-depth. Therefore, the next section discussed the social capital, social exchange and general incentives theories and the relevant civic engagement literature. The review identified trust factors (trust propensity, trust in social media and trust in institutions)

and benefit factors (group incentives and system benefits, reputation) from these theories to be salient predictors of civic efforts that needs to be tested.

In terms of the impact of social media for civic engagement, past studies have produced mixed results, particularly concerning the well-being and needs to be explored further. Virtual social skills in the work place were identified in Information System studies as a critical success factor for online operations but remain understudied in social media. Past online civic studies also seem to demonstrate a focus on political issues as opposed to what the community is concerned about, i.e. social issues. In terms of the methodology, the literature revealed an unexplored relationship, specifically the relationship between interviews, web analysis and survey online civic engagement behaviour to demonstrate the connections among different methods of studies on the online civic engagement phenomena. Moreover, a richer measure of social media usage and its different uses, particularly for civic engagement, which remain unexplored, have been addressed in this study. These issues, which have been examined as gaps, are presented in the next chapter.

CHAPTER 3: RESEARCH MODEL

3.1 Introduction

This chapter presents the research gaps identified in the literature review and the research model (see Figure 3.1) developed for this study based on these gaps. The research model developed encompasses three areas: (1) online civic engagement behaviour; (2) factors that have been understudied in influencing online civic engagement behaviour, and (3) the impact of online civic engagement on satisfaction in life and on virtual social skills at work. Subsequently, the research model was revised to reflect the findings from the interviews and web analysis on online civic engagement behaviour, in addition to the research gaps identified from the literature review. The revised model and hypotheses are presented in section 7.4 in Chapter 7. This chapter is divided into four sections: (1) identification of research gaps, (2) justifications and operationalization of constructs, (3) the research model, and (4) the development of the hypotheses for the research model.

3.2 Identification of research gaps

3.2.1 Gap 1 – Lack of measurements for online civic engagement behaviour modes

Based on the literature review in Chapter 2, many studies have treated the variable ‘SNS use’ as a one-dimensional construct (Valkenburg et al., 2006; Ellison et al., 2007; Correa et al. 2010; Gil de Zuniga et al., 2012; Glynn et al., 2012). While these studies on the usage of Facebook generated evidence concerning its versatility, they did not relate these uses to the contributions made in terms of civic engagement modes. This aspect is important in civic engagement because these modes are the communication processes that influence an individual’s civic attitude and behaviour by ‘allowing them to exchange information, elaborate on problems facing the community and learn about

opportunities to participate in civic activities' (Gastil & Dillard, 1999; McLeod et al., 1999; Klofstad, 2007; Rojas et al., 2005, quoted in Gil de Zuniga et al., 2012 p. 322). Calls for future research on methodology also include developing a richer measure for social media by differentiating similar forms of interactions (Correa et al., 2010); for a more rigorous approach by using different methods (Ellison et al., 2007; Waite, 2009; Ward, 2011; Harp et al., 2012) to improve this line of research. Moreover, based on the literature review, there has yet to be a measurement for online civic engagement behaviour consisting of the various modes of civic engagement using social media.

3.2.2 Gap 2 – Lack of mixed methods approach used in the field

Resulting from the over reliance on qualitative methodology in using social media for civic engagement studies (a snapshot of this can be seen in Figure 3.1) and the advantages the mixed methods approach offers in research (Johnson & Onwuegbuzie, 2004; Creswell & Plano, 2007; Venkatesh et al., 2013), it is argued that a mixed methods approach combining both qualitative and quantitative techniques deserves more attention in this field. Moreover, triangulation supports interdisciplinary research, such as online civic engagement, which encompasses the fields of information systems, sociology, and psychology rather than just a single bounded discipline. This study has also addressed calls to incorporate mix methods in investigating social media (Ellison et al., 2007; Waite, 2009; Correa et al., 2010; Ward, 2011; Harp et al., 2012), particularly, for civic behaviours. The research begins with a qualitative approach that taps into the uses and perceptions of social media by social activists, as recommended by Harp et al. (2012) in addressing social issues via interviews and web analysis. Next, the study addresses the lack of a measurement survey on the modes of online civic engagement (Gap 1) by developing a new scale of measurement. The final method deployed surveys for data collection in order to test the hypotheses.

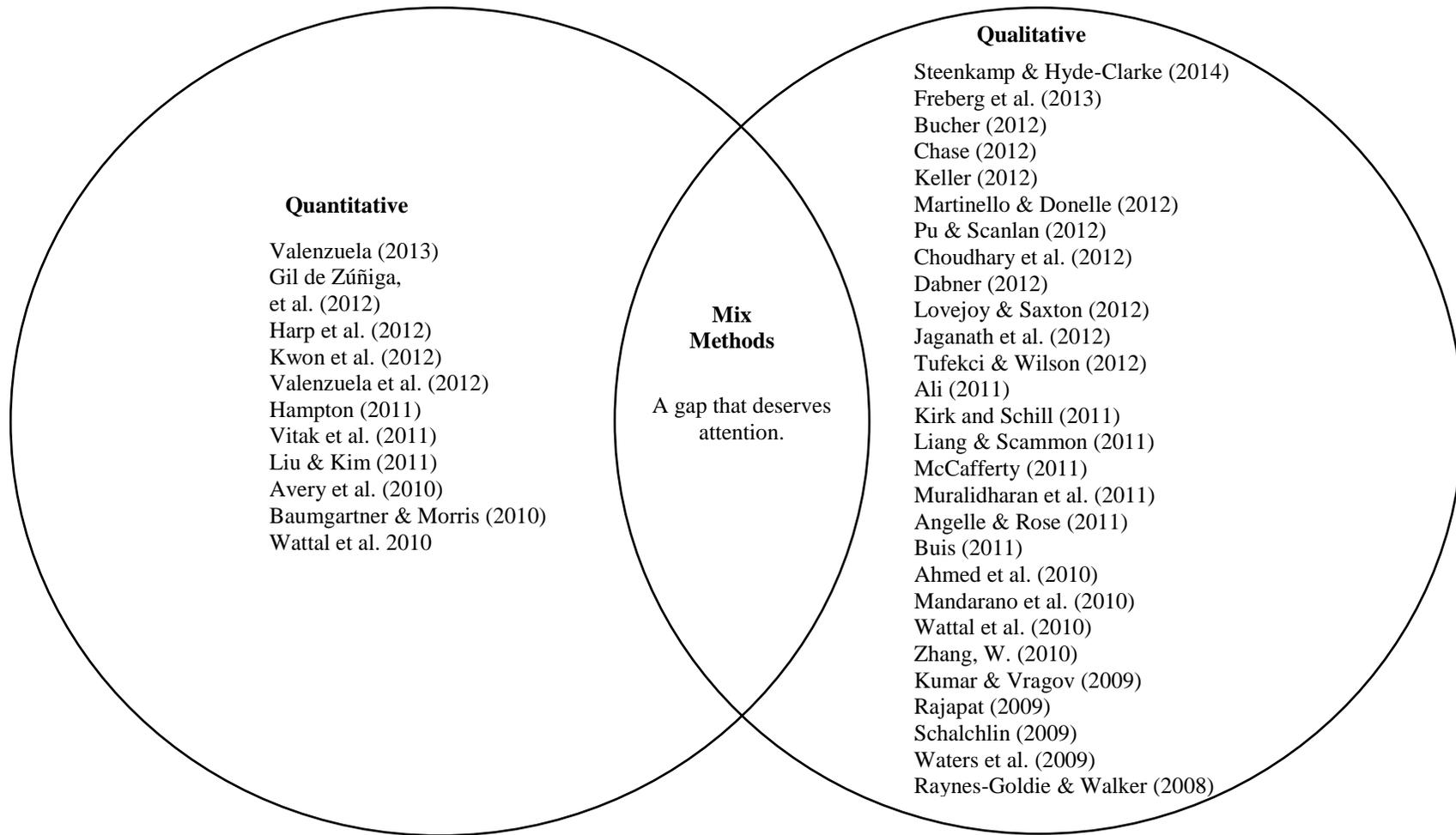


Figure 3.1 Methods used in civic engagement in social media studies

3.2.3 Gap 3 – Lack of attention in research on civic efforts in social issues in general

Much of the social media literature has focused on the political perspective of civic engagement (see Chapter 2, Figure 2.1); however, civic engagement goes beyond political participation. Drawing on the work of Montgomery, Gottlieb-Robles, and Larson (2004), and Raynes-Goldie and Luke Walker (2008), civic engagement refers to any activity aimed at improving one's community. This begins with being knowledgeable and aware of social issues, and includes activities, such as educating the public on social issues and ways to address the problems, organizing charity events and contacting officials to negotiate for change. In this sense, civic engagement encompasses efforts pertaining to public concerns, such as crime, the decaying moral values among individuals, the lack of interest in community work and the quality of education. This study expands the notion of civic engagement in the ways social media is used for addressing prevalent social problems.

3.2.4 Gap 4 – Understudied impetuses for online civic engagement behaviour

While the studies in social media (shown in Table 2.1) on motivations generated a link between internal and external factors for social media usage, it did not relate the motivation to the contributions made in terms of civic engagement behaviour. Some studies did investigate the use of social media for civic participation (section 2.4), but they did not include the enablers for the different online civic modes, and, sometimes, did not follow from a theoretical anticipation of their factor selection.

Following the notion that trust has the ability to reduce uncertainty and encourage participatory behaviour, it is a potential predictor for online engagement behaviour. This study expands the relational capital of trust into three types – trust propensity, trust in

social media and trust in institutions – in examining its relative strengths for the different modes of online civic engagement. Furthermore, considering that the theory of general incentives and social exchange helps to explain civic voluntary efforts and participatory behaviour, the understudied benefit factors (group incentives, system benefits and reputation), as predictors of online civic engagement, are addressed.

3.2.5 Gap 5 – Unclear and understudied impact of online civic engagement behaviour

Drawing from the literature review, the impact of social media usage in relation to satisfaction in life is unclear. There is a conflicting debate on the contribution of social media in terms of positive, negative or even no significant outcomes (see section 2.8.1). This needs to be researched further, particularly in using social networking sites in fostering positive outcomes (Peluchette & Karl, 2008). Valkenburg, Peter and Schouten (2006) suggested that the well-being of users is more likely to be affected by different modes of Internet communication and should be clarified.

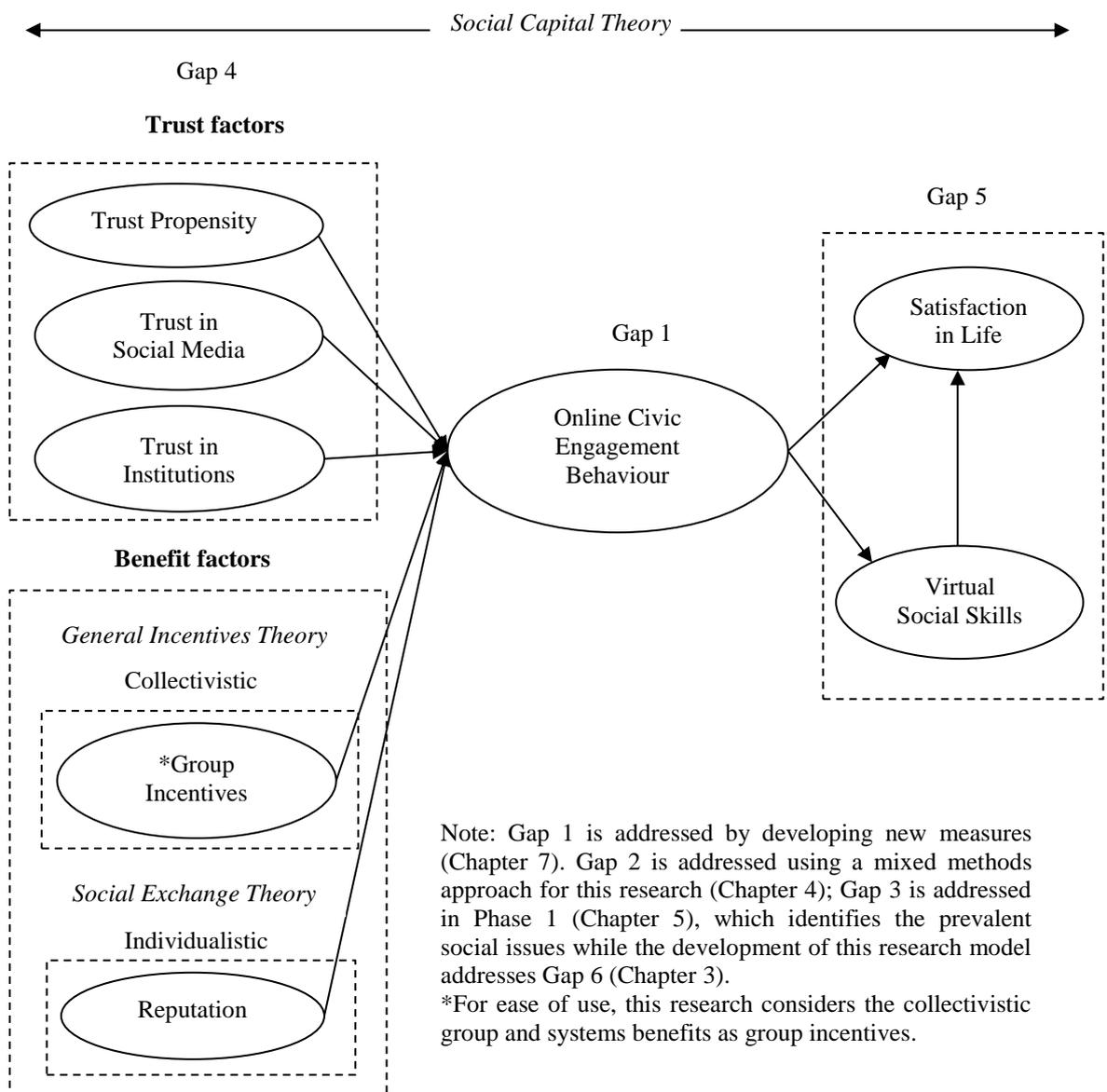
Some studies investigated the use of social media for civic participation (section 2.4), but they did not include the different online civic modes or anticipate the consequences for satisfaction in life and for improving virtual social skills at work. Past works have concurred that social interaction is a critical factor for successful virtual operations as they can improve cohesiveness and facilitate collaboration (see section 2.8.2). This creates a necessity for developing and enhancing the virtual social skills of employees. This study intends to investigate whether online civic engagement behaviours, which include modes of planning and discussion, will improve one's virtual social skills at work, an area which has yet to receive any attention despite its importance.

3.2.6 Gap 6 – Scarcity of online civic engagement behaviour framework

A sound conceptual framework for online civic engagement behaviour is lacking. Most of the past frameworks focused on the establishment of Internet services for citizenship, with an emphasis on politics (Denning 2000; Price et al., 2002, Shah et al., 2005; Ward, 2011; Conroy et al., 2012, Gil de Zuniga et al., 2012). These works tended to lack the theoretical foundation for understanding social exchanges in the form of civic participation. There is a need for a fuller more comprehensive framework on online civic engagement behaviour that encompasses the prevalent social issues. Moreover, what is lacking in the literature is a framework that shows how the various perspectives (gaps 1 to 5) are related or interlocked. Thus, this research presents a conceptual research model (see Figure 3.2) that highlights the five gaps.

3.3 Research model

The study's research model draws upon prior work on social capital theory, social exchange theory and the general incentives theory. It proposes two categories of antecedent that impact on the extent of social media use for civic engagement behaviour: trust factors (trust propensity, trust in social media and trust in institutions) and benefit factors (collectivistic – group incentives, and individualistic – reputation). It also examines the impact of online civic engagement behaviour on satisfaction in life and their virtual social skills at work. Figure 3.2 highlights the five gaps that have been addressed.



Note: Gap 1 is addressed by developing new measures (Chapter 7). Gap 2 is addressed using a mixed methods approach for this research (Chapter 4); Gap 3 is addressed in Phase 1 (Chapter 5), which identifies the prevalent social issues while the development of this research model addresses Gap 6 (Chapter 3).
*For ease of use, this research considers the collectivistic group and systems benefits as group incentives.

Figure 3.2 Conceptual research model

3.4 Justification and operationalization of constructs

Most of the discussions of the selected constructs are in the literature review in Chapter 2. This section specifically presents the justification and operationalization for the selected constructs for this research. This study operationalized the variables using multi-item reflective measures, mostly adopting measures from previous studies. Reflective indicators are caused by the latent construct, are interchangeable, covary, and share a common theme (Jarvis et al., 2003).

In terms of the scale for the measures, many IS studies applied a seven-point scale ranging from strongly disagree (1) to strongly agree (7) across all variables (see for example Gefan, 2000; Gefan et al., 2003; Pavlou & Gefan, 2004; Brown & Venkatesh, 2005; Nicolaou & McKnight, 2006). Following the works of these scholars, all of the items were similarly assessed using a seven-point Likert scale.

3.4.1 Online civic engagement behaviour

As suggested by the literature (see section 2.4 and Table 3.1), civic engagement has been explained and defined in many ways. To some extent, civic engagement refers to citizens' efforts to address an issue with the aim of improving one's community. This study adopts the definition of online civic engagement according to Denning (2000) for two reasons. First, its meaning suits the context of the study, which is in online civic engagement. Second, Denning's (2000) definition and content domain of Internet activism (used interchangeably with civic engagement, as noted in Chapter 2) includes the modes of online civic engagement. This is in line with one of the objectives of this research, which is to investigate the modes of online civic engagement behaviour. Other scholars noted in Table 3.1 have excluded this aspect.

Table 3.1 Definitions of online civic engagement

Construct	Source	Definition	Selected
Online civic engagement	Erlich (2000, preface, p. vi)	‘Civic engagement means working either through political or non-political processes to make a difference in a community by promoting quality of life in a community’.	
	Denning (2000, p.15)	Referred to Internet activism as ‘...the use of the Internet in support of an agenda or cause’. It includes five modes of online activism: collection of information, publication of information, dialogue, coordination of action, and lobbying decision makers.	√
	Shah et al. (2001, p.146)	Referred to civic engagement as ‘participation in civic and community activities’.	
	Raynes-Goldie & Walker (2008 p. 162)	Defined civic engagement as ‘any activity aimed at improving one’s community’.	
	Zuniga et al. (2012, p. 320)	‘Civic participation involves behavior aimed at resolving problems of the community’.	
	Zuniga & Valenzuela (2010, p.399)	‘...we equate civic engagement with voluntary civic activity. By civic, we mean activity aimed at addressing social and/or community issues that are not political by nature but, nevertheless, are conducive to the collective well-being. By voluntary, we refer to activity that is not mandatory and is not financially compensated. Last, the emphasis on activity seeks to stress individuals’ behaviors, rather than their pro-civic attitudes or cognitions.’	
	Kvasny et al. (2010, p.4)	Adopted the definition by Denning (2001). ‘...activism refers to normal, non-disruptive use of the Internet in support of an agenda or cause’.	
	Boyd et al. (2011, p. 1167)	‘Civic engagement is conceptualized as participation in and contributions to the activities and institutions of the community and broader civil society’.	
Operationalized definition for this study		Any individual or collective effort in addressing social issues using social media, including collection of information, publication of information, dialogue, coordination of action, and lobbying decision makers. The study looks beyond civic engagement widely discussed organised political campaigns.	
Reasons for the selected definition		<ul style="list-style-type: none"> • Resembles the understanding of online civic efforts intended for this study. • The content domain included the modes of online civic engagement behaviours, which is in line with the study’s objectives. 	

Past studies have found support for the argument that social media use fosters civic engagement (see for example Chan & Guo, 2013; Fernandes et al., 2010 and in section 2.4). Even though there are many reasons for examining online civic engagement (refer

to section 1.2), empirical research in understanding social media usage for civic efforts is limited. Therefore, it is imperative for researchers to continue to develop methodologies to explore online civic engagement (Waite, 2009; Ward, 2011; Harp et al., 2012), in particular in developing richer measures (Correa et al., 2010) as opposed to a unidimensional view of social media usage. In response to these recommendations, this research has developed new measures for online civic engagement that reflects the definition and content domain by Denning (2000). The development of the new measurements for online civic engagement has resulted in two modes: civic expressions and civic actions. The scale used was a seven-point scale: Never (1); rarely, 10% of the time (2); occasionally, 30% of the time (3); sometimes, 50% of the time (4); frequently, 60% of the time (5); usually, 70% of the time (6); and very often, more than 70% of the time (7). This measure of frequency usage applied was similar and consistent with previous measures of media use employed by previous scholars (see for example Valenzuela, Arriagada and Scherman, 2012). The decision to include the percentage to represent the scale was suggested by an expert (a Professor with Quantitative and scale development background and publications) during the validation process of the survey in Phase 3. This was to provide a clearer understanding of the meanings of the frequency levels by differentiating them by percentages. The items are in Table 3.9.

3.4.2 Independent factors

As explained in section 2.5.2, among the key aspects of social capital and social exchange that can define the context for participatory behaviour is trust. Despite its importance in coordinated actions and solving problems at work (Kankanhalli et al., 2005; Ferlander, 2007), and for community involvement (Putnam, 1995; Kwak et al., 2004; Kim 2007; Xu et al., 2010), current social media participatory studies utilizes a unidimensional view of trust (see for example Baker & Moore, 2008; Hsu & Lin, 2008;

Valenzuela et al., 2009; Lin & Lu, 2011). This research extends this view and acknowledges the different types of trust as it relates to the social media, in particular, Facebook community and platform. This research expands the notion of trust into three types, namely, trust propensity, trust in social media and trust in institutions.

3.4.2.1 Trust propensity

As in past trust-related studies, much of the individual trust items were measured as beliefs about honesty, commitment, reliability, and trustworthiness of individuals (see for example Jarvenpaa & Leidner, 1999; Gefan, 2000; Gefan et al., 2003; Colquitt et al., 2007; Lin & Lu, 2011; Pattie et al., 2003; Taniguchi & Marshall, 2012). These items resemble the definition by Gefan (2000) and Gefan, Karahanna and Straub (2003). As such, the operationalization of trust propensity for this study is similar to these scholars (Gefan, 2000; Gefan et al., 2003).

Trust propensity is defined in this study as the general tendency to believe in people. The measures for this study and its scales were adapted from Pavlou and Gefan (2004) because the items reflect the understanding of trust propensity intended for this study. Moreover, the measures have been tested and demonstrated reliability and validity. The items were measured using a seven-point Likert-type scale anchored at 'strongly disagree' (1) to 'strongly agree' (7), and 'neither agree nor disagree' (4), following Pavlou and Gefan's scale (2004).

Table 3.2 Definitions of trust propensity

Construct	Source	Definition	Selected
Trust Propensity	Gefan (2000, p.726)	'...the confidence a person has in his or her favorable expectations of what other people will do, based, in many cases, on previous interactions'.	√
	Gefan et al. (2003, p. 62).	'Tendency to believe or not to believe in others and so trust them. This form of trust is based on a belief that others are typically well-meaning and reliable'.	√
	Jarvenpaa et al.(1998, p. 31)	'General personality trait that conveys a general expectation of how trusting one should be'.	
	Colquitt et al. (2007, p.913)	'General tendency to trust others'.	
	Mayer et al. (1995, p. 715)	'...a stable within-party factor that will affect the likelihood the party will trust...Propensity might be thought of as the general willingness to trust others'.	
	Fukuyama (1995, p.26)	'...the expectation that arises within a community of regular, honest and cooperative behaviour, based on commonly shared norms, on the part of members of that community'.	
	Pavlou & Gefan (2004)	Adopted the understanding of trust propensity by Gefan (2000).	
	McKnight et al. (2004, p.36)	Tendency to believe in the positive attributes of others in general.	
Operationalized definition for this study	The confidence level and tendency to believe in the positive side of others.		
Reasons for the selected definition(s).	<ul style="list-style-type: none"> • Represents the understanding intended for this study. • Many trust propensity items resemble these scholars' definitions (see section 3.4.2.1 for examples). • Measures have been validated in IS studies. 		

3.4.2.2 Trust in social media

This study incorporates the definition and measures of Internet trust items from Dinev and Hart (2006) who followed McKnight et al. (2002), namely, trusting beliefs in competency, reliability and safety on websites. These measures resemble the understanding of trust in the context of social media sites in general. Moreover, the items have been adapted and tested for validity and reliability in many works (see for example McKnight et al., 2004; Nicolaou & McKnight, 2006; Park et al., 2012). Following the works of these scholars, the five items were adapted and modified to reflect confidence that personal information submitted to social media sites will be handled competently, reliably, and safely. The items were measured on a seven-point Likert scale, similar to that in section 3.4.2.1.

Table 3.3 Definitions of trust in social media

Construct	Source	Definition	Selected
*Trust in social media	McKnight et al. (2002, p.339)	'...is the belief that needed structural conditions are present (e.g. in the Internet) to enhance the probability of achieving a successful outcome'.	
	Dinev & Hart (2006, p.64)	'Trust beliefs reflecting confidence that personal information submitted Internet websites will be handled competently, reliably, and safely'. Adapted from McKnight et al. (2002)	√
	Park et al. (2012)	Willingness to disclose information on the Internet.	
	Nicolaou & McKnight (2006)	Adapted from McKnight et al. (2002).	
Operationalized definition for this study	Adopting the definition by Dinev & Hart (2006).		
Reasons for the selected definition	<ul style="list-style-type: none"> • The definition is in line with the understanding of trust in the context of social media sites in general, and not a specific online vendor. • Measures have been validated in IS studies. 		

*Incorporates the definition of Internet trust by authors.

3.4.2.3 Trust in institutions

Based on the multiple definitions of trust in institutions, as seen in the literature (see section 2.4.2.3) and summarized in Table 3.4, this study operationalizes trust in institutions in accordance with the understanding of trust in institutions by Paxton (1999). This is because it best represents this notion of trust in this study's context, relating it to the public's confidence level in institutions, such as the police, the politicians, the government and legal systems in delivering their services to the public. According to Paxton (1999), this type of trust is similar to the notion of trust in expert systems of Giddens (1990), where an individual may not know the builders of their car or their house, but they 'trust the system of accreditation, regulation, and monitoring in which the person is embedded' (p. 98).

Many of the measures used for trust in institutions in past studies were adapted from or similar to the institutional trust measures used in the General Social Survey (GSS) and European Social Survey. These measures have been widely used by civic engagement

scholars (Paxton, 1999; Mishler & Rose, 2001; Pattie et al., 2003; Zmerli & Newton, 2008; Grönlund & Setälä, 2011; Hakhverdian & Mayne, 2012). As such, the items measuring trust in institutions follow the practices of these civic scholars.

Trust in institutions was measured using five items that reflected the trust in the government, politicians, police, courts and justice system. They were adapted and modified from Paxton (1999) who also based the measures on GSS. A Likert scale of 1 to 7 was applied, following the consistency of trust measures from the IS field, as previously identified.

Table 3.4 Definitions of trust in institutions

Construct	Source	Definition	Selected
Trust in institutions	Warren (1999, p.349)	‘to ‘trust an institution’ means that the truster knows the normative idea of the institution, and has some confidence in the sanctions that provide additional motivation for officials to behave according to this idea’ (p. 349).	
	Paxton (1999)	The trustworthiness or the confidence of an individual towards ‘generalized others’ (p.99) including the police, the government or ruling politicians, and legal system.	√
	Mishler & Rose (2001, p. 31)	‘the expected utility of institutions performing satisfactorily’.	
	Newton & Norris (2000, p. 53)	‘...central indicator of the underlying feeling of the general public about its polity’.	
	Hakhverdian & Mayne (2012, p. 741)	‘the faith that the public places in its political actors and institutions not to act in ways that will do them harm’.	
Operationalized definition for this study	Adopting the definition by Paxton (1999).		
Reasons for the selected definition	<ul style="list-style-type: none"> • The definition is in line with the understanding of trust in the context of institutions and the notion of trust similar to that of Giddens (1990). See section 3.4.2.3. • Measures have been validated in many studies. Examples are shown in section 3.4.2.3. 		

3.4.2.4 Group incentives

Incentives have been referred to in different ways. For example, Dinas and Gemenis (2013) have explained that the notion of incentives to be selective and process incentives, based on the understanding provided by Olson (1965). Selective incentives are the benefits that will motivate an individual to participate collectively. For instance,

benefits one obtains for oneself and their family and the groups they care about by participating in a group-oriented manner. Process incentives are those benefits that an individual gathers during the act of such civic engagement. For example, the process of being engaged in protesting allows individuals to meet like-minded people, and get acquainted with strangers (Oberschall, 1993, p. 12). As such, engaging in social issues brings the community together and has the potential to improve the participator's relationship with the community. In addition, some acts of civic participation may enable an individual to benefit themselves and their families, friends and/or groups they care about. In the 1990s, Whiteley and Seyd outlined a 'general incentives' rational action model that included a wider range of incentives as part of the decision-making criteria for civic engagement (see Seyd and Whiteley, 2002). Their general incentives theory included additional incentives, such as expressive motives and systems benefits.

As outlined above, three groups of benefits can be identified: collective, selective and system. Based on the understanding of civic engagement for this study, which is for societal level concerns, this study adopts the collective and system views of incentives that is anchored on political activism perspectives, and considers them as group incentives for this study. As such, the best definition that suits the understanding of group incentives was adapted from Olson (1965), and Seyd and Whiteley (2002). The measures that resemble this view were adapted and modified from Pattie et al. (2003).

Table 3.5 Definitions of group incentives

Construct	Source	Definition	Selected
Group incentives	Olson (1965,p. 51)	Referred to incentives, which ‘will stimulate a rational individual in a latent group to act in a group-oriented way’. These incentives include selective incentives and process incentives. Collective benefits are available to all, whether or not they participate in ensuring the good is provided, whereas selective benefits are restricted to those who participate.	√
	Dinas, E., & Gemenis, K. (2013), p.226-227	Adapted the understanding from Olson (1965). ‘Selective incentives are benefits, which in contrast to the public good whose acquisition constitutes the goal of the participants, are not disseminated to all interested members, but remain private and are only shared among participants...Process incentives is i.e. incentives related to the act of participation’.	
	Hardin (1982, p. 123)	‘The desire to participate in experiences of one’s generation might lead one to participate in an action or movement whose purposes one does not support’.	
	Seyd and Whiteley, 2002	Extended the understanding of incentives as a motivator for political participation from Olson (1965) that includes the following: Collective incentives – Benefits that are available for all citizens to enjoy regardless of whether one participates. Selective process incentives – gratification that is experienced during the participation process, relating to the enjoyment of interacting with others. Selective outcome incentives – Privatized outcomes accruing from participation that are related to self-interest, e.g. furthering one’s political career. Group incentives – individual’s perception about the efficacy of the group, e.g. a political party, to bring about desired social change.	√
Operationalized definition for this study		A sense of duty for society and/or benefits related to the outcomes of civic participation for oneself and groups they feel attached to.	
Reason for selected definition		<ul style="list-style-type: none"> The definition is in line with the understanding of trust in the context of a personal benefit and social exchange. Measures have been validated in online participatory behaviour see for example section 3.4.2.4. 	

Note: Group incentives for this study differ from the same construct defined by Seyd and Whiteley (2002).

3.4.2.5 Reputation

The understanding of reputation has been anchored as individual perspectives (see for example Jones et al., 1997; Kankanhalli et al., 2005; Wasko & Faraj, 2005; Klotz & Bolino, 2013) and as IS mechanisms (Resnick & Zeckhauser, 2002; Dellarocas, 2005; Jøsang et al., 2007; Rice, 2012) in the context of management and IS studies. At times, the term has often been adapted from management studies (see for example Wasko &

Faraj, 2005; Kankanhalli et al., 2005). This study follows this practice and adopts the definition of reputation from Jones et al. (1997).

Table 3.6 Definitions of reputation

Construct	Source	Definition	Selected
Reputation	Jones et al. (1997, pg. 932).	A measurement of ‘one’s character, skills, reliability, and other attributes important to exchanges’. It is an asset that an individual can leverage to achieve and maintain status within a collective.	√
	Wasko & Faraj (2005)	Adopted the definition by Jones et al. (1997).	
	Klotz & Bolino (2013)	Personal reputation refers to a collectively held perception of an employee’s image based on his or her personal characteristics and prior behaviour.	
	Kankanhalli et al. (2005)	Image is defined as ‘the perception of increase in reputation due to contributing knowledge in electronic knowledge repositories’.	
	Deephouse (2000, p.1094)	Evaluation of a firm by its stakeholders in terms of their affect, esteem, and knowledge.	
	Mendez-Duron (2013, p. 357)	Reputation is an intangible asset that organizations rely on to gain a competitive edge in their respective markets.	
Operationalized definition for this study		Adopting the understanding of reputation by Jones et al. (1997).	
Reasons for the selected definition		<ul style="list-style-type: none"> • The definition is in line with the understanding of reputation in the context of as a personal benefit and social exchange. • Measures have been validated in online participatory behaviour see for example in section 3.4.2.4. 	

IS scholars have noted that reputation is an essential asset to encourage participatory behaviour in online networks (Constant et al., 1996; Donath, 1999; Lakhani & von Hippel, 2003; Wasko & Faraj, 2005) Investigating the impact of reputation on online civic engagement behaviour helps to confirm whether reputation as an incentive is able to increase one’s involvement in addressing social issues via social media.

3.4.3 Dependent factors for online civic engagement behaviour

The dependent variables in this study are satisfaction in life and virtual social skills.

3.4.3.1 Satisfaction in life

Both the definition and measurements for satisfaction in life were adapted from the Satisfaction with Life Scale developed by Diener, Emmons, Larson, and Griffin (1985). This scale has shown high levels of internal consistency and reliability (Pavot et al., 1991). Moreover, both of their definitions and measurements have been widely used in psychology and social media studies (see for example Valkenburg et al., 2006; Lee et al., 2011; Zuniga & Valenzuela, 2011; Kuo et al., 2013).

Table 3.7 Definitions of satisfaction in life

Construct	Source	Definition	Selected
Satisfaction in life	Shin & Johnson (1978, p.478)	'A global assessment of a person's quality of life according to his chosen criteria'.	
	Diener, et al. (1985, p.71)	'A cognitive, judgmental process' of one's well-being according to the individual's own understanding and chosen criteria.	√
	Kuo et al. (2013)	Adopted the definition by Diener et al.	
	Liang et al. (2012, p.1026)	'A state of well-being on an individual level'.	
	Frey & Stutzer (2002, p. 403)	'Subjective well-being is the scientific term in psychology for an individual's evaluation of his or her experienced positive and negative affect, happiness or satisfaction with life'.	
Operationalized definition for this study	Adapting the definition by Diener, Emmons, Larson, and Griffin (1985).		
Reasons for the selected definition	<ul style="list-style-type: none"> The definition is in line with the understanding of satisfaction in this study's context. Measures have been validated in psychology and social media studies (see for example in section 3.4.3.1). 		

3.4.3.2 Virtual social skills

The ability to effectively read, understand, and control social interactions has been of interest to behavioural scientists for some time. For example, Argyle (1969) suggested that social skill is reflected in the effective exercise of persuasion, explanation, and other influence mechanisms, which reveal the ability to control others. Meichenbaum,

Butler, and Gruson (1981) noted that social skill reflects the capacity and knowledge of both what to do and when to display certain behaviour, in addition to possessing behavioural control and flexibility. Marlowe (1986, p. 52) defined social intelligence as ‘the ability to understand the feelings, thoughts, and behaviors of persons, including oneself, in interpersonal situations and to act appropriately upon that understanding’. Ferris et al. (2001), adopted the view of Gardner (1993), who noted that those individuals possessing a high level of social skill are not only better able to understand and read other people but are also more adept at forming opinions of their own capabilities to ‘operate effectively in life’ (p. 9).

With the advent of social media and other ICT, a new form of skill known as virtual social skills has been emphasized (see section 2.8.2). ICT scholars (Wan et al., 2008; Wang & Heggerty, 2011, p.305) defined virtual social skills as the ‘know what’ and ‘how to’ components of social interactions in online environments. See Table 3.8 for its definition. This study adopts the definition of virtual social skills of Wang and Heggerty (2011) and adapted their measures on social skills. This is because both the definition and measures resemble the context of this study, which is in social media and understanding of social skills as a social competence. This study measures virtual social skill using seven items presented on a 7-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree), following various works on social skills (Ferris et al., 2001; Wan et al., 2008; Wang & Heggerty, 2011).

Table 3.8 Definitions of virtual social skills

Construct	Source	Definition	Selected
Virtual social skills	Wan et al. (2008, p. 515)	'...the individual's knowledge of and skills in building social relationships within virtual environments; it obviously is non-technical'.	
	Segrin & Givertz, (2003, p. 136)	Social skill reflects 'the ability to interact with other people in a way that is both appropriate and effective'.	
	Wang & Heggerty (2011, p. 305).	'VSS is representative of both the knowledge ('know what') component and the skill ('how to') component of competence in virtual settings. It reflects individuals' understanding of the uniqueness of social activities in virtual settings and the skill to deal with it.'	√
	Ferris et al. (2001, 1076)	Social skill 'reflects interpersonal perceptiveness and the capacity to adjust one's behavior to different situational demands and to effectively influence and control the responses of others'.	
Operationalized definition for this study	Adapting the definition by Wang and Heggerty (2011).		
Reasons for the selected definition	<ul style="list-style-type: none"> • The definition is in line with the understanding of virtual social skills in this study's context. • Measures have been validated in studies (Ferris et al., 2001; Wan et al., 2008; Wang & Heggerty, 2011). 		

Table 3.9 presents the measurement items for this study.

Table 3.9 Measurement items

Latent variable	Item	Items adapted & modified from
Trust Propensity	<ol style="list-style-type: none"> 1. Most people keep promises. 2. Most people are honest. 3. Most people are trustworthy. 4. Most people keep commitments. 5. Most people are reliable. 	Pavlou & Gefan (2004)
Social Media Trust	<ol style="list-style-type: none"> 1. FB is a safe place to exchange information. 2. FB is a reliable environment to coordinate activities. 3. FB handles personal information competently. 4. I feel safe to post information on FB. 5. FB has sufficient privacy settings. 	Dinev & Hart (2006)
Trust in institutions	<ol style="list-style-type: none"> 1. The government can be trusted. 2. Politicians can be trusted. 3. The police can be trusted. 4. The courts in the country can be trusted. 5. The justice system is fair. 	General Social Survey (GSS) Paxton (1999)
Group Incentives	<ol style="list-style-type: none"> 1. Engaging in social issues helps us to learn more about our country. 2. Engaging in social issues is a good way to get benefits for myself and family. 3. Engaging in social issues is a way to get benefits for groups that I care about. 4. Engaging in social issues is a must for every citizen if we want to reduce social problems for the benefit of our nation. 5. Engaging in social issues helps bring the community together. 6. Engaging in social issues improves my relationship with the community. 	Pattie et al. (2003)
Reputation	<p>Engaging in social issues:</p> <ol style="list-style-type: none"> 1. Improves my status. 2. Improves my reputation at work. 3. Allows me to earn respect from others at work. 4. Increases my social standings among friends. 5. Makes me more popular in my social circle at work. 	Wasko & Faraj (2005)
Online civic engagement behaviour	<p>How often do you use Facebook to do the following:</p> <ol style="list-style-type: none"> 1. Post links on social issues. 2. Post images/videos on social issues. 3. Post news on social issues. 4. Exchange opinions on social issues. 5. Create social issue related event invitations. 6. Confirm assistance with others on social issue events. 7. Plan activities on social issues with others. 8. Make a donation. 9. Sign a petition. 10. Vote for a cause. 	Self-developed based on the definition and content domain by Denning (2000). (See Chapter 7)

Table 3.9, continued

Latent variable	Item	Adapted & Modified from
Satisfaction in life	<ol style="list-style-type: none"> 1. In most ways my life is close to my ideal. 2. The conditions of my life are excellent. 3. I am satisfied with my life. 4. So far I have gotten the important things I want in life. 5. If I could live my life over, I would change almost nothing. 	Diener et al. (1985)
Virtual social skills	<ol style="list-style-type: none"> 1. In virtual settings at work, I am keenly aware of how I am perceived by others. 2. In virtual settings at work, I am good at making myself visible with influential people in my life or in my organisation. 3. In virtual settings at work, I find it is simple to put myself in other people's positions to understand their point of view. 4. In virtual settings at work, I am able to socialize easily. 5. In virtual settings at work, I am particularly good at sensing the motivations and hidden agendas of others. 	Wang & Haggerty (2011)

3.5 Theoretical framework

There are two main theories applied on participatory behaviour: theory of social capital and social exchange theory. The general incentives theory was also applied to compliment the social exchange theory in understanding the factors that influences users' online participatory behaviour. The literature for these theories was presented in the literature review in Chapter 2. This section provides a brief explanation to the theories applied to the theoretical framework leading to the development of the hypotheses and research model for this study.

3.5.1 Social Capital Theory

According to Nahapiet and Ghoshal (1998, p. 243), social capital is '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'. Their conceptualisation of social capital consists of three dimensions, namely structural, relational and cognitive. In IS, among the key aspects of social capital that can define

the context for online participatory behavior, is trust, a facet in the relational capital (Kwak et al. 2004). Trust can be considered as social capital since it is a form of assets rooted within social relationships that can improve the efficiency of coordinated actions (Kankanhalli et al., 2005) and encourage participation on networks (Chiu et al., 2006). Trust is a key aspect particularly in the social capital theory even when anchored from either the IS or civic engagement literature. Based on the literature review in Chapter 2, this study found that there are three types of trust, namely trust in propensity, Internet trust (renamed as trust in social media in this study to resemble the context of the study) and trust in insititutions.

In the IS scholarship, the two types of trust that has been noted for facilitating online participatory behavior is trust propensity and Internet trust, omitting the institutional trust aspect (see for example McKnight, Choudhury and Kamar, 2002; Wasko and Faraj, 2005, Chiu et al., 2006; Dinav and Hart, 2006). On the other hand, in the sociology stream of civic engagement literature, trust in institutions is prominent in influencing civic engagement or acitivsim (see for example Putnam, 2000; Shah et al., 2001; Kwak et al., 2004; Pattie et al., 2003; Kim, 2007, Ali A. 2012; Choudhary et al., 2012; Taniguchi and Marshall 2012). For studies where both IS and civic engagement is combined, such as in understanding social media usage for civic engagement, these three trusts as a relational capital has yet to be included for testing its prediction on influencing online civic engagement behaviour inspite of its importance noted by scholars in both IS and civic engagement literature. Therefore, this research expands the understanding of trust as a facet of the relational factor in the social capital theory by investigating the aforementioned three types of trust in influencing online civic engagement behaviour.

3.5.2 Social Exchange Theory

The social exchange theory posits that individuals engage in social interaction based on an expectation that it will lead in some way to social rewards such as reputation (Blau, 1964). This theory is one of the renowned and influential theories that investigate the dynamics in social interactions and it has been used in the field of IS at both the individual and organizational levels to investigate phenomenon, such as knowledge sharing behavior (Kankanhalli et al. 2005; Wasko & Faraj 2005) and software development (Benbya & Belbaly 2010). Social media usage, particularly in social networking sites, implies active participation in social interactions with the online community. Therefore, the social exchange theory is relevant in understanding online civic engagement behaviour of social media users.

From previous studies, scholars have found that voluntary online participation behaviour for content sharing are contingent upon an individual's motivation in the social exchange. For example, some studies found that individuals voluntarily contribute their knowledge on electronic networks when they perceive that it augments their reputations (Bretzke & Vassileva, 2003; Sun & Vassileva, 2006; Farzan et al., 2008; Tang et al., 2012) and when they are structurally embedded in the network (Wasko and Faraj, 2005). Similarly, Polletta and Jasper (2001, p.290) argue that being an activist becomes a 'prized social identity', which supplies the 'incentive to participate'. Such findings provide support for the notion by Dinas and Gementis (2013) that intangible benefits often involve psychological gains stemming from civic efforts.

While past research on the social exchange theory emphasizing on reputation as a motivator for online participatory behavior, these studies have largely focused on e-commerce (Bockstedt and Goh, 2011) and vendor reputation (Wang and Benbasat

2008), but have been sparse in the social media context for civic engagement. Thus far, only one particular study investigated and found that reputation was an incentive for content contribution on YouTube (Tang et al. 2012) albeit not in understanding civic contributions. Thus, this research applies the social exchange theory in explaining reputation as the social reward in exchange for users' time, effort and other civic contributions for addressing prevalent social problems using social media.

3.5.3 General Incentives Theory

Seyd and Whiteley (1992) devised a 'general incentives theory' to explain variation in levels of activism among members of political parties. They argue that the decision to participate in an activism is a function not only of costs and benefits (Downs, 1957 cited in Pattie et al., 2003) but also of one's attachments (those who feel strongly attached to a group are more likely to act on than those who are less attached), sense of duty, process benefits (e.g. A good way to meet people); and group incentives (e.g. Politics is a good way to get benefits for oneself and one's family). Their theory has been exemplified in a study in Britain (Pattie et al., 2003) where different types of group incentives influenced participation in political engagement. Thus, individuals are also more likely to be influenced by the benefits they obtain for themselves or their family, the groups they care about, the attachment they have to an issue, and the sense of duty or obligation for the nation.

In past IS studies as indicated in Chapter 2, it has been suggested that individuals participate in networks due to a perceived moral obligation to pay back the nation and the profession as a whole (Wasko and Faraj 2000). Moreover, based on previous studies on civic engagement, such as activism leading to democracy (see for example Ali A., 2012; Choudhary et al., 2012; Tufeci and Wilson, 2012) and for those that uses websites

to facilitate global civic actions (see for example TakingITGlobal.org), this phenomenon can be explained by this theory, in particular, that group incentives predicts online civic engagement behaviour.

3.6 Hypotheses development and research model

3.6.1 Trust Propensity

Trust propensity is based on a belief that others are typically trustworthy with good intentions and reliable (Rosenburg, 1957; Wrightsman, 1991; Gefan et al., 2003). These beliefs are somewhat like a trust credit that is given to others before experience can provide a more rational interpretation why people forgo certain risks and are willing to engage in certain actions (Gefan et al., 2003). Such a disposition is especially important in the initial stages of a relationship, particularly where weak ties (among strangers) are formed (Mayer et al., 1995; McKnight et al., 1998; Rotter, 1971). Over time, as people interact with the trusted party, these dispositions become of lesser importance because people are more influenced by the nature of the interaction itself (McKnight et al., 1998; Rotter, 1971).

The effects of trust propensity are evident in the literature review in section 2.5.2.1. Past studies on information systems have suggested that trust propensity is an influential predictor in online participatory behaviours, such as knowledge sharing (Adler, 2001); e-commerce (Lee & Turban, 2001; Cheung & Lee, 2002; Pavlou & Gefan, 2004); disclosure of personal information and for cooperation (Tsai & Ghoshal, 1998; Dwyer et al., 2007; Shin, 2010). In civic engagement literature, trust propensity ignites voluntary behaviour. Social capital researchers (Putnam, 1995; Kwak et al., 2004; Kim 2007; Xu et al., 2010) have noted that trust and social networks with others are the virtuous circle of social capital that can create the context for collective problem resolution.

The willingness to trust another is particularly indispensable when people are urged to do ‘good works ...from a far distance’ (Wiepking, 2010, p. 1076). Similarly, the Internet is an online environment in which a wide range of users known and unknown to each other across geographical boundaries meet. In such instances, the willingness for a user to participate in contributing money, knowledge or time in engaging in social issues needs to be supported by a form of belief that their civic efforts are worthy and for a genuine cause. This belief that will encourage online civic efforts is trust propensity. Moreover, according to Jennings and Zeitner (2003, p. 318), ‘...the link to civic engagement rests in the contention that individuals cannot work collectively for a common good unless they trust each other’. In this research model, trust propensity is a salient construct in this model that attempts to explain civic participatory behaviour with respect to social media usage for addressing social issues. This is consistent with the study’s intention to better understand the relative strengths of trust factors that influence the willingness to provide time and effort to engage in social issues using social media. Following the notion that trust propensity has the ability to reduce uncertainty and encourage participatory behaviour, this study proposes the following hypothesis:

H1: A higher level of trust propensity is related to a higher level of online civic engagement behaviour.

3.6.2 Trust in social media

Trust clearly plays an important role in online settings and is a key factor influencing the continued use intentions towards websites and online services on the Internet (Gefen 2000; Kim & Ahn, 2007; Kim et al., 2008; Sledgianowski & Kulviwat, 2009; Shin 2010). In this study, trust in social media adopts past IS scholars’ (McKnight et al., 2002; Dinev & Hart, 2006) trusting beliefs for Internet use. They defined trust in the

Internet as a set of beliefs that reflect confidence that personal information submitted to Internet websites, in particular, will not be used beyond what was intended for. These beliefs include competence, reliability, and safety. (Explanations are in section 2.5.2.2).

The belief that Internet websites are reliable and a safe environment in which to disclose information and that information will be handled in a competent fashion increases the willingness of users to provide personal information (McKnight et al., 2002). In the e-commerce domain, users take a direct, measurable risk (of losing money), which makes trust a very important construct. This risk may be less salient in other domains, such as online civic engagement, because no actual transaction takes place. Instead, the purpose of engagement relies heavily on the social cause advocated and information exchanged. Following the trust-transference logic (Doney & Cannon, 1997; Stewart, 2003), this research argues that trust in a platform (somewhat like an intermediary) for civic communications could increase online civic participation. This is because if social media users feel that the owner of the platform is competent, has integrity, and has a secure, safe and reliable platform, then positive perceptions will manifest in their minds as a willingness to accept the new technology (e.g. social media) as a way of addressing social issues.

This study's assessment of trust in social media extends this notion whereby higher trust should influence users to disclose personal civic expressions and take civic actions. Rather than studying a reflective behaviour, such as willingness of users to do something, this research studies the effect trust in social media have on the actual voluntary participatory behaviour itself. Thus, the following hypothesis is proposed:

H2: A higher level of trust in social media is related to a higher level of online civic engagement behaviour.

3.6.3 Trust in institutions

The third type of trust involves trust in institutions, such as the government, politicians, police and justice system. These are trusting beliefs that institutions are reliable, honest, fair, responsible and trustworthy in carrying out their duty for society. In section 2.5.2.3, past research has suggested that people's trust in institutions is likely to reduce the uncertainty entailed in their decision to engage in civic efforts. Moreover, citizens' trust in government is essential to maintain social order (Blau, 1964). However, in more recent events, citizens who lack trust in institutions have been actively involved in activism (Pattie et al., 2003; Ali A., 2011 & Choudhary et al., 2012). The notion of these studies suggests that trust in institutions plays a role in fostering online civic engagement among citizens and maintaining social order. However, the direction and strength of this relationship is unclear. Thus, this research posits the following hypothesis:

H3: A higher level of trust in institutions is related to a higher level of online civic engagement behaviour.

3.6.4 Group incentives

Group incentives (including group and system benefits) is an appropriate motivation in this investigation because social media provides access to an incredibly wide range of contacts, information, goods, and services that might not otherwise be available or conveniently available to users. These resources, including contacts made online, could benefit users and the groups with whom they feel attached. As suggested by the literature in section 2.5.4, incentives encourage civic engagement, particularly for oneself and for the benefit of family members. On this note, group incentives represent a salient construct in this model that attempts to explain online civic behaviour. This is also consistent with the study's intention to better understand the relative strengths of

incentives as an enabler to encourage users to engage in social issues online. Therefore, the following hypothesis was formulated:

H4: Individuals who perceive that participation in social issues will help them gain group incentives will engage more frequently in online civic engagement behaviour.

3.6.5 Reputation

Olson (1965, p. 60) remarked, ‘people are sometimes also motivated by the desire to win prestige, respect, friendship, and other social and psychological objectives’. In social movements, non-material incentives often involve psychological gains stemming from activism (Dinas & Gementis, 2013). For example, being an activist becomes a ‘prized social identity’, which supplies the ‘incentives to participate’ (Polletta & Jasper, 2001, p.290). Such an incentive is similar to the notion of increasing one’s reputation.

Although many studies have examined reputation in management information systems (Ba & Pavlou, 2002; Wang & Benbasat, 2008), few have considered it in the context of social media for civic engagement. For example, previous studies have examined online reputation mainly in the context of e-commerce (Fuller et al., 2007; Bennet et al., 2011). The importance of reputation has been noted in IS studies in terms of encouraging pro-social behaviours. For instance, Donath (1999) in her study of Usenet Newsgroups has noted that ‘both the establishment of their own reputation and the recognition of others—plays a vital role’ (p. 30) in knowledge sharing. Similarly, reputation has been suggested as encouraging employees to share knowledge on electronic networks, which helps build social capital among employees (Wasko & Faraj, 2005).

In addition to the literature on reputation in section 2.5.5, studies on motivational effect in game mechanics have been inspired by the theory of social comparison in designing

incentive mechanisms (Bretzke & Vassileva, 2003; Sun & Vassileva, 2006; Farzan et al., 2008). The studies found that users who checked their status more frequently contributed more to the online communities. These studies suggest that reputation acts as a predictor of increased participatory behaviour. Past literature provides support that reputation can be used as a powerful benefit to increase contributions to online communities or in electronic networks. As such, even with the absence of personal acquaintance, strong ties, or the likelihood of reciprocity among online users, the expectation of personal benefits, such as reputation can motivate social media users to engage in social issues. In this regard, this study proposes the following hypothesis:

H5: Individuals who perceive that participation in social issues will enhance their reputation will engage more frequently in online civic engagement behaviour.

3.6.6 Online civic engagement behaviour and satisfaction in life

As social media usage continues to expand its technological capabilities and global penetration, one pressing question emerges: Does online civic engagement imply a more satisfied life? While researchers have argued that participating in civic activities enhances positive developmental outcomes in one's self (Gamson, 1992; Wandersman & Florin, 2000; Prilleltensky et al., 2001; Smetana et al., 2006), there have also been contradictory findings for different participators (Leung et al., 2003; Kroll, 2011). These mixed results have been discussed in section 2.8.1. In terms of the impact of social media use for civic engagement on one's well-being remains unknown. As such, in the combined context of both social media and civic engagement, this research proposes the following hypothesis:

H6: A higher level of participation in online civic engagement behaviour is related to a higher level of satisfaction in life.

3.6.7 Online civic engagement behaviour and virtual social skills (VSS)

The impact of social media have changed the nature of how we communicate in a virtual context as seen in the literature review (section 2.8.2). VSS is necessary to reflect an understanding of the emerging accepted business etiquette for online communications and the skill to cope therewith. Given technology's ubiquity, working individuals are exposed to many technologies outside their work (e.g. social media), which provides more opportunities for people to learn and practice how to collaborate and communicate better with others. As so much of what businesses and people learn comes through mutual problem-solving and the sharing of experiences with one another, as previously discussed in the literature review, it can be posited that people can improve their virtual social skills in a communicative and collaborative environment, such as online civic engagement. Recent works have also suggested that individuals develop competence as a key learning outcome of coping with changes in the environment (Wang & Haggerty, 2011; Wan et al., 2012).

With the advent of Web 2.0, individuals have become more involved in social media-related activities both at work and home. According to the social cognitive theory, these Information and Communication Technology (ICT) activities allow individuals to accumulate knowledge and enhance their skills in virtual settings (Wan et al., 2008). In this sense, using social media allows different forms of communication to take place that will increase the confidence of individuals. Such social media related communications can help individuals to find more effective ways to communicate and gain knowledge about the norms of online communication. This is more so with using social media for civic engagement because it includes different modes that provide users the opportunity to interact, coordinate, discuss and debate. As a result, individuals become confident in their ability to accomplish tasks in online settings and are more skilful at teaming up with others (virtual social skill). Past findings have supported this

notion. Scholars have found evidence that suggests that experience in using ICT for seeking information and communicating had a positive relationship with virtual competence, which included virtual social skills (Wan et al., 2008; Wang & Heggerty, 2011; Wan et al., 2012). One explanation provided was the possibility that daily or frequent use of ICT for these kinds of activity helped individuals develop the capabilities to perform in online settings. Therefore, this study argues that in the course of individuals' online civic engagement efforts, they are exposed to skills and behaviours which are applicable to work situations. Such online civic experiences in addressing social issues will help people build social competence, particularly virtual social skills, to perform effectively in their present working virtual settings. Thus, this study formulates the following hypothesis:

H7: A higher level of online civic engagement behaviour is related to a higher level of virtual social skills.

3.6.8 Virtual social skills and satisfaction in life

The skill sets required for success in the work place have changed dramatically in the past few years, particularly with the emergence of the Internet. Today's competitive global market has changed work demands, expanding from traditional face-to-face transactions to virtual operations. Such changes demand that employees possess soft skills in the online settings in addition to technical skills. The importance of virtual social skills at work in improving the firm's performance has been discussed in section 2.8.2. Another thing worth noting is whether having enhanced social skills online at work would improve employees' well-being.

Socialization is crucial to people's well-being. Past studies have suggested that engaging with people, such as neighbours, friends, and family, and participation in

social groups, has been found to improve people's level of social support, fulfilment of their own relationships, making sense of life, self-esteem, commitment to communities, and psychological and physical well-being (Thoits, 1983; Cohen & Wills 1985; Diener et al., 1999; Putnam, 2000; Peterson et al., 2005). When people have more social involvement they are happier and healthier, both physically and mentally (Gove & Geerken, 1977; Cohen & Wills, 1985; Putnam, 1995). However, in order to achieve such positive effects on one's well-being such as a satisfying relationships through socialization, one would need to have the necessary socialization skills. As Rossiter and Pearce (1975, p. 3) note, 'Satisfying relationships with other people are established through communication, and our ability to communicate well and important'.

In this era, technology has facilitated in bringing people together. With advanced ICTs, especially with the Internet in the workplace, many see great potential in the use of mediated communication in broadening people's social experiences and involvement, which will further strengthen social ties, particularly with peers and customers. Many forms of virtual services, including instant messaging, chat rooms, e-mailing, online forums, and social media sites, serve to build virtual social capital for users. With stronger relationships and social support, one's psychological well-being and perceived quality of life can be expected to improve. Examples of the positive effects of online interactions have been discussed in section 2.8.1. What is important here are the social skills involved in producing such positive emotions and psychological developments in the online context. Without effective social skills, which include the communicative ability to express oneself and to understand the perspectives of others, positive feelings and amiable relationships would be difficult or cannot be built.

In business, the need for effective social skills is inevitable. Such effective communication skills play a role in bringing a project to completion (Crawford, 2005; Johannessen & Olsen, 2011). Past studies have suggested that meaningful interactive communication skills may change individual's decision making and contribute to psychological and attitudinal changes against the situation at hand (Antioco et al., 2008; Kuhlmeier & Knight, 2010). In communication and psychology research, there have been contrasting results on the relationship on social skills and satisfaction in life or well-being. For example, Segrin and Flora (2000) conducted a longitudinal analysis in which they assessed self-reported social skill and psychosocial well-being at two different times over the course of several months. Their results from the study indicated that individuals with lower social skills at Time 1 were more vulnerable to the development of psychosocial problems at Time 2. On the other hand, some research suggests positive satisfaction result from positive interactions with working colleagues for instance, managers and peers (see for example Repetti & Cosmas, 1991) or due to virtual competence that includes virtual social skills (Wang & Haggerty, 2011). In another setting, scholars suggested a positive impact of online communication and social well-being among adolescents in the context of virtual games (Visser et al., 2013). Despite the popular use of online communications at work, the importance of virtual social skills and well-being, there is limited research in this area. The gap that needs to be addressed is the understanding of the impact of virtual social skills on satisfaction in life among social media users at work. Moreover, there has been a future call to investigate the perceptions on social skills and well-being (Caplan, 2003).

The present study seeks to understand the role of virtual social skills in enhancing satisfaction in life. Specifically, it examines the question of whether virtual social skills at work can enhance employees' satisfaction in life, making them happier workers. This

is important for employers because happier employees are more productive and can boost their performance on the job (Wright & Cropanzano, 2004; Zelenski et al., 2008). In addition, the investigation of this outcome would add to the understanding of the communication impact of virtual socialization and its impact on satisfaction in life. Thus, the study proposes the following hypothesis:

H8: A higher level of virtual social skills is related to a higher level of satisfaction in life.

3.6.9 Mediating effects of online civic engagement

Social media sites represent various forms of user-generated content (UGC), such as blogs, virtual communities, wikis, social networks, collaborative tagging, and media files shared on sites like YouTube and Flickr, have gained substantial popularity, as reflected by statistical usage (Socialbakers, 2013). Many of these social media sites assist individuals in posting and sharing their concerns on social issues, civic-related comments, opinions, and personal experiences, which then serve as information for others (see for example in Chapter 2).

In past studies, findings have suggested that the Internet mediates individual experiences as they use these social media sites to portray, reconstruct and relive their experiences particularly on trips (Pudliner, 2007; Tussyadiah & Fesenmaier, 2009). Following this notion, online civic engagement should have a similar effect on users' trust and satisfaction in life. This is grounded on two reasons. First, the literature supports the notion that trust (measured in various ways) is strongly related to one's happiness (Bjørnskov, 2006; Hudson, 2006; Dolan et al., 2008). Second, there is a possibility that due to the innovative, network capabilities and technological

characteristics of ICT, such as social media, its use is very much a part of individuals' well-being as it expands their experiences and stimulates their psychological states of satisfaction, closeness, belonging, or group involvement (see for example Ellison et al., 2007; Baker & Moore, 2008; Steinfield et al., 2008; Ko & Kuo, 2009; Kim & Lee, 2011; Lee et al., 2011; Manago et al., 2012). Borrowing this notion, online civic engagement behaviour can have a similar effect on one's life satisfaction as it is able to tap into the uncertainty that exists in any online civic endeavours, particularly new ones. This study posits that when there is ample experience of online civic efforts, trust becomes insignificant due to familiarity, while satisfaction increases. This is based on the understanding that as interactions or experiences increase over time, the individuals will perceive greater confidence in other people (Gabarro, 1978; Tsai and Ghoshal, 1998). With frequent engagement, users would also develop closer interrelationships and shared identity that will enable people to work together and create collective strengths, as suggested by past findings (Panteli & Sockalingam, 2005), leading to a common goal of addressing social issues and improving the quality of life for themselves. Thus, this study expects online civic engagement behaviour to mediate the effects of the different types of trust on satisfaction in life. Hence, the following three hypotheses were formulated:

H9: The effects of trust propensity on satisfaction in life will be mediated by online civic engagement behaviour.

H10: The effects of trust in social media on satisfaction in life will be mediated by online civic engagement behaviour.

H11: The effects of trust in institutions on satisfaction in life will be mediated by online civic engagement behaviour.

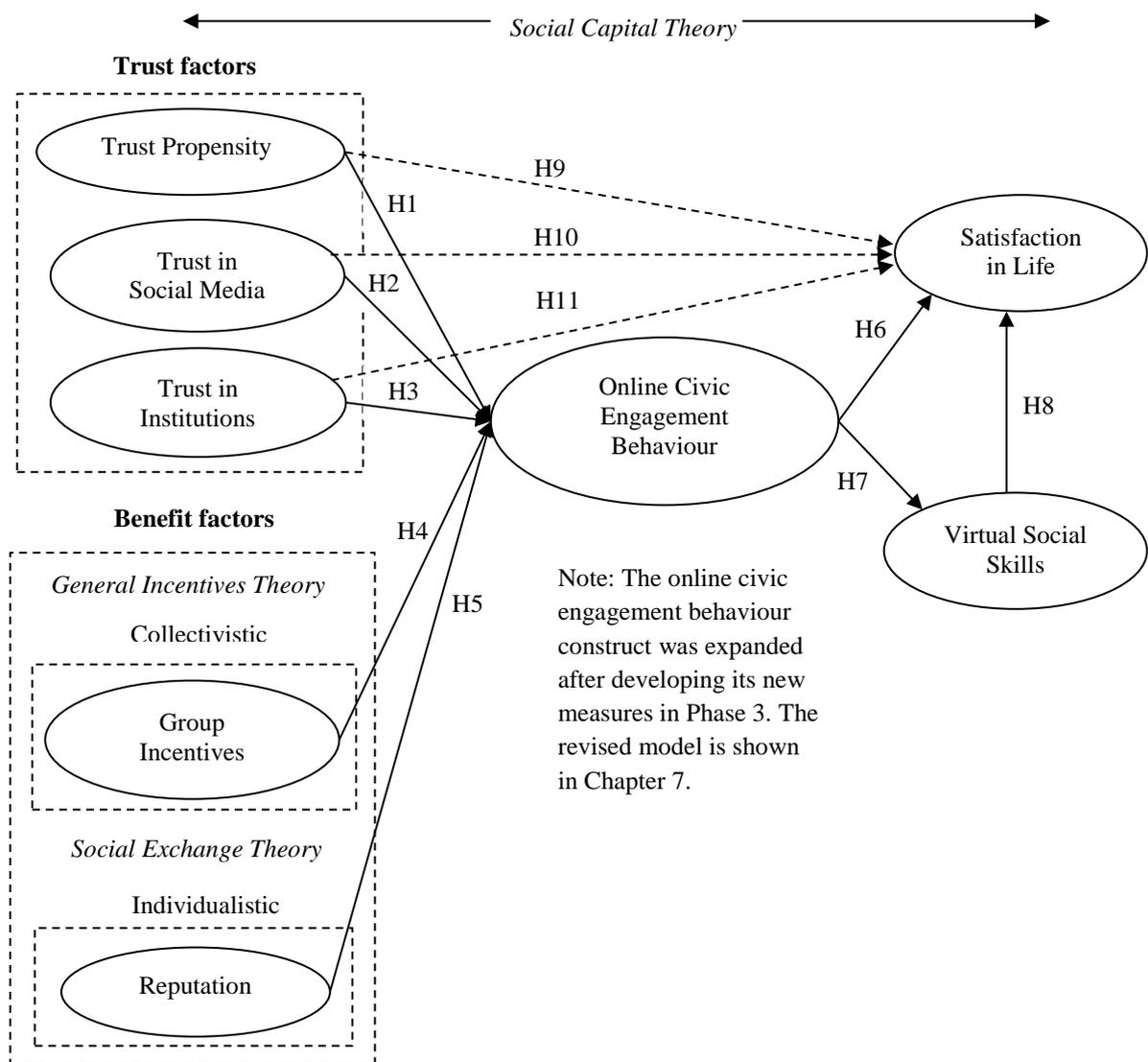


Figure 3.3 The online civic engagement behaviour research model

Note: the dotted arrows represent the hypotheses of online civic engagement as a mediator between the trust factors and satisfaction in life

3.7 Chapter summary

Five predictors of online civic engagement behaviour were included in the research model for testing. They are trust factors (trust propensity, trust in social media and trust in institutions) and benefit factors (collectivistic – group incentives and individualistic – reputation). The two dependent variables are satisfaction in life and their virtual social skills at work. The research model and the hypotheses developed for this study were based on social capital theory, social exchange theory and the general incentives theory, and the research gaps identified in the literature review.

CHAPTER 4: METHODOLOGY

4.1 Introduction

Chapter 4 describes the methodological approach for this research, which explores online civic engagement. Specifically, it outlines the research design, data collection tools, procedures, and the methods applied to validate the results of the research.

The civic engagement literature on social media have relied on traditional, often qualitative measures (see Figure 3.1). In light of this, resulting from the over-reliance on qualitative methodology in social media related civic engagement studies, as identified in the literature review, it can be argued that a mixed methods approach combining both qualitative and quantitative techniques deserves more attention. Although the mixed methods approach is not a new concept in the Information Systems field, its advantages have not been fully appreciated in studies pertaining to the social media and civic engagement field. Thus far, to the researcher's understanding, a mixed methods approach, consisting of interviews, web analysis and surveys, has yet to be attempted in the context of examining the modes of civic engagement in social media.

In addition, the choice of mixed methods undertaken is shaped by recent recommendations by scholars. For example, Harp, Bachmann and Lei Guo (2012) suggested that researchers could benefit from qualitative approaches when tapping into the uses and perceptions of activists on social media. Such methods include interviews and web analysis. Other avenues for future research to improve this line of study include developing a richer measure of social media use by employing different uses within the social media realm by differentiating similar forms of interaction (Correa et al., 2010). While theorists emphasize the importance of selecting methods that are

appropriate to address the research questions posed, it is also important for researchers to seek opportunities to apply research tools in novel or unconventional ways in order to advance the field (Singleton & Straits, 2005; Saunders & Thornhill, 2009). By applying a diverse range of analytical methods to capture the different facets and nuances of online civic engagement behaviour, this research widens the lens of social media research to stimulate new and valuable thinking about using social media to engage citizen participation.

4.2 Research design

This study adopts a mixed methods approach in its attempt to address the study's objectives and research questions. According to past scholars (Morgan, 1998; Morse, 1991; Johnson & Onwuegbuzie, 2004), consideration of the dimension of paradigm emphasis (deciding whether to give the quantitative and qualitative components of a mixed study equal status or to give one paradigm the dominant status) and time order are important in research.

The emerging phenomenon of online civic engagement is argued to be fairly new and requires different methods (Harp et al., 2012; Correa et al., 2010, Ward, 2011) in understanding social media. As such, although the study adopts the positivist paradigm, it is necessary to incorporate the sequential mixed methods through three levels of understanding. This study adopts the sequential method (Johnson & Onwuegbuzie, 2004; Cresswell, 2007), in which qualitative research feeding into the emphasized quantitative research will be used. This method is also referred to as sequential triangulation in which the results of one method are essential for planning the next method (Morse, 1991).

The interpretive and subjective levels of understanding of the research provide a framework to direct a part of its methodology. By interviewing social activists and conducting web analysis on their social media sites, the study gains an understanding of how social media is used for civic engagement. This led to the development of the civic engagement modes in which the positivist perspectives of online civic engagement are integrated to test the hypotheses. Following the sequential design, the research consists of four phases and a total of three different data collection methods were used. The data collection methods include: interviews, web analysis and surveys. The four phases roughly mirror the ‘three levels of understanding proposed by Lee (1991).

The first approach consists of the interpretive understanding level, which consists of the interviewees’ interpretation on prevalent social problems and online civic engagement efforts. The second approach reflects the ‘subjective understanding’ level, which consists of the everyday meaning of reality in which the researcher observes the online civic activities of the participants.

For this study, the interpretive understanding precedes the subjective understanding for two reasons. First, as the activists were identified through recommendations, only by first knowing who did what civic effort, would the researcher be able to observe those efforts online. Secondly, before the web analysis could be conducted on their personal and organisations’ social media sites, prior approvals from the interviewees were needed. Moreover, only with their granted permission, could the researcher be added as a friend or member on certain social media sites, in particular, on Facebook, to permit the researcher to observe and obtain data. The data were collected from archived electronic texts and images of the activists’ and their organisations’ (where applicable) social media sites. This included the materials available on their timeline on the social

networking website, Facebook. Publicly available posted messages, images, conversations and articles retrieved from these sites, in particular from the ‘timeline’. The ‘timeline’ is a section of a Facebook user's account that replaces Facebook’s Profile and Wall pages, and merges them together (Facebook, 2012). It shows the story of the user’s life, which is somewhat a cross between a visual blog and an online scrapbook. It includes postings of messages, dialogues, images and shared links. Sometimes, it is referred to as ‘the wall’ (see for example Robertson et al., 2010).

The third approach comprises the survey. This level is the positivist understanding that tests the researcher's propositions in a formal and scientific manner. Table 4.1 shows the mapping between the phases, its objectives, the levels of understanding, and the research methods applied in each phase.

Figure 4.1 presents the research design of this investigation and maps the relationships between each of the four phases. The underlying purpose of the research design is to incorporate both qualitative and quantitative methodologies in order to triangulate the research findings and enhance validity (Brannen, 1992; Johnson & Onwuegbuzie, 2004; Edmondson & McManus, 2007; Flick, 2009; Cresswell, 2013).

Table 4.1 Study phases, objectives, levels of understanding and research methods

Study Phase	Objectives	Levels of Understanding	Research Methods
Phase 1: Interviewing activists regarding social problems and their online civic engagement efforts.	<ul style="list-style-type: none"> • To explore social media users, in particular, activists' online civic engagement behaviour. 	1 st level: Interpretive understanding	Individual interviews
Phase 2: Observing the modes of online civic engagement on their personal and/or organisation websites, blogs, YouTube postings and Facebook.		2 nd level: Subjective understanding	Web analysis
Phase 3: Collecting quantitative data for new scale development (online civic engagement behaviour).	<ul style="list-style-type: none"> • To develop the new measures for online civic engagement. The outcome of this phase was validated and fed into Phase 4. 	3 rd level: Positivist understanding	Questionnaire survey
Phase 4: Collecting quantitative data regarding the motivators for online civic engagement; the use of Facebook for civic engagement; perceived satisfaction in life; and perceived virtual social skills.	<ul style="list-style-type: none"> • To determine the factors that influence online civic engagement behaviour among social media users. • To examine the level of social media usage for civic engagement among social media users. • To investigate the impact of online civic engagement behaviour on life satisfaction. • To investigate the impact of online civic engagement behaviour on virtual social skills. • To examine the mediating role of online civic engagement behaviour on <ul style="list-style-type: none"> a) trust factors and satisfaction in life. b) trust in social media and satisfaction in life. c) trust in institutions and satisfaction in life. • To examine the impact of virtual social skills on satisfaction in life. 		

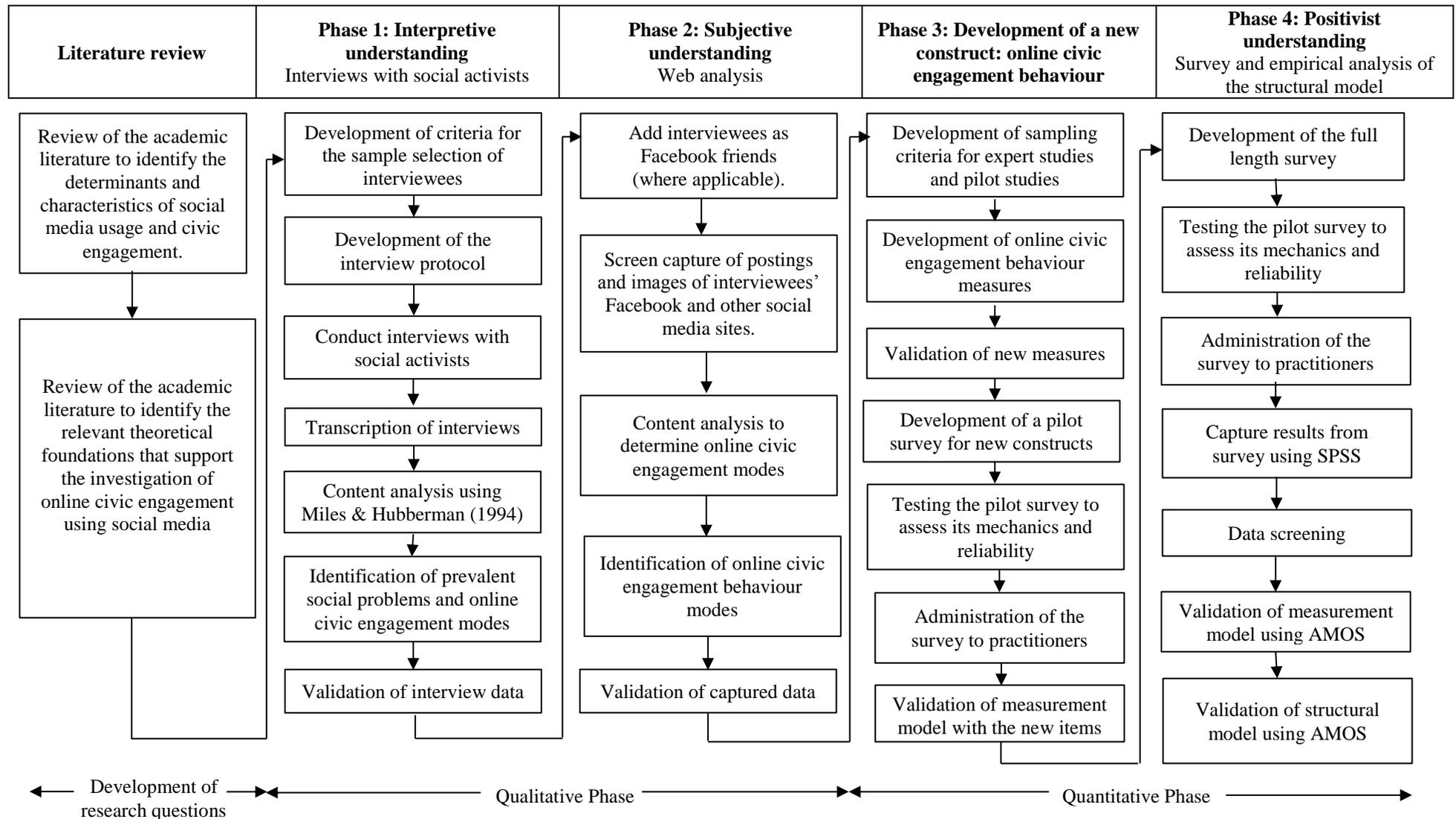


Figure 4.1 Overview of the research design

4.3 Phase 1: Interviews

4.3.1 Introduction

The purpose of Phase 1 was three-fold. First, to capture the understanding of the expert practitioners (i.e. activists) on the prevalent social problems in the country. Second, to explore how activists use social media to address these social issues. Face-to-face interviews provided a holistic view of how social media facilitates activists in their pursuit of civic engagement efforts. Third, the codes and themes developed from Phase 1 served as a guide or check against the findings for Phase 2.

Individual interviews were employed because there is scant research as to the major prevalent social problems in the local context and whether the five modes of online civic engagement (see section 2.6) were applicable to the context of social media. The steps undertaken in Phase 1 are outlined in Figure 4.1. The interview protocol was developed based on the methods of Cresswell (2013) and from the existing social media usage in the literature, in particular by Denning (2000). The audio-taped interviews were transcribed and coded for analysis. The outcomes of the analysis of the interview data are: (1) the identification of the prevalent social issues as part of the survey measures in Phase 3 and Phase 4; (2) the confirmation on the modes of online civic engagement behaviour found in the literature, which were then used as an observation guide in Phase 2 and as part of the survey measures for Phase 3 and Phase 4.

The discussion of Phase 1 includes the sampling of interview participants; the development of the interview protocol; data collection by individual face-to-face interviews; data analysis; and data validation.

4.3.2 Sampling: Interviewees

The first step in Phase 1 (see Figure 4.1) was to identify the appropriate interview sample. These interviewees were required to have repeated exposure and involvement in advancing social goals and addressing issues considered as experts. As such, the best type of interviewees would be the social activists. An activist has been defined as ‘someone who tries to advance a substantive political or social goal or outcome’ (Levine & Nierras, 2007, p. 1). For the purpose of this research, activists are referred to as those who have engaged in any activity that has the aim of addressing social issues.

Criterion sampling and snowball sampling strategies were employed to ensure that the interview participants were experts in civic engagement. Criterion sampling ensured that the sample was reflective of experts in addressing social issues and are social media users, thus ensuring the internal validity of this research design. Interviewees were required to meet two primary selection criteria: (1) meets the study’s definition of an activist and (2) has a Facebook account.

Snowball sampling was applied to identify activists that other activists considered to be experts in civic engagement and social media. The resulting convenience sample is justifiable because there is no readily available list of all activists in the studied country (Harlow & Harp, 2011). Initially, the researcher approached academics and practitioners for recommendations of social activists whom they considered to be experts. Further, upon completion of every interview, the interviewee was asked to recommend another activist whom they considered to be an expert in civic engagement and social media. Selection bias was overcome by interviewing activists from different backgrounds, and with different roles and responsibilities towards social issues and social media. This

resulted in a selection of interviewees who met the primary interview selection criteria. The list of interviewees is presented in Chapter 5.

Another important consideration relating to the interview sample was gaining access to certain recommended activists who were elite interviewees. The interviewees were considered to be professional elites based on their expertise and commitment to the country in curbing social issues. Odendahl and Shaw (2002) suggested that in studying elites the researcher should have knowledge of the elite culture under study and possess the appropriate personal status and institutional affiliation.

In preparing for the interviews, the researcher had to consider the following issues: (1) Did she understand the language and culture of the interviewees? (2) How should she present herself to the interviewees? And (3) How could she establish a rapport with the interviewees? (Fontana & Frey, 2000). The researcher's experience with social issues stems from her former experience as a volunteer and her participation in raising funds. Further, the researcher's former role as an IS analyst, educator, and current candidature from a leading local university, with a scholarship sponsored by a local renowned investment company contributed to her gaining access to these elites. As such, her working background along with her association with a leading university and investment company allowed her to gain access and establish a rapport with professional elites. Further, her experience, coupled with online civic engagement knowledge gained from the content analysis of relevant materials, provided her with an understanding of how to guide each interview in order to elicit sufficient information from the interviewees.

4.3.3 The interview protocol

The interview protocol or sometimes referred to as the interview guide, was an indispensable part of the interviews because it served as a guide (Creswell, 2012; 2013) and ensured that data from different interviews could be compared (Merton & Kendall, 1946). This comparability of interview data criterion ensured that the interviews covered the same range of items pertinent to the research questions. The interview protocol reflected the research questions in order to capture the major areas of inquiry relating to social issues and online civic engagement behaviours. The interview protocol was based on the content analysis of literature and data from the public domain that relates to online civic engagement in addressing social issues. Appendix 3 presents the interview protocol.

The development of this interview protocol was the second step of Phase 1 (see Figure 4.1). The study proposed a non-directive interviewing approach to facilitate the flow of responses from the interviewees. Therefore, the interview protocol consisted of semi-structured questions to elicit information and guide the interviews. The interviews normally began with a similar set of questions before going into the content of the topic. Semi-structured questions have the element of guiding interviewees by defining either the concrete issue or the response. As such, interviewees have the freedom to determine their reply to the question. New questions sometimes emerged through the interview, where appropriate to elicit more information and examples for a clearer understanding.

In constructing questions for Phase 1, this study also adopted McNamara's (2009) suggestions for creating simple yet effective research questions for interviews. Examples include: 1. In your opinion, what are the major social problems our country is facing today? 2. How do you convey your thoughts and beliefs on such social issues

online? 3. What do you think the online community can do to help solve these issues? 4. What do you think will happen with your efforts online? The interview protocol is in Appendix 3.

Creswell (2007) suggested conducting a pilot test to refine the interview questions and procedures. Two PhD academics with a qualitative background were interviewed and their feedback on the interview questions and procedures were obtained. Certain questions were rephrased and the order rearranged for a smoother interview process. The revised interview protocol was sent to participants in advance to allow them to reflect on their responses (Flick, 2009). Before the interviews began, the participants were given the opportunity to comment on the questions and the relevance to each participant's background. An outcome of this pre-interview discussion was that some questions were rephrased to match the specific backgrounds and experiences of participants. For example, participants with an information technology background emphasized the characteristics of different types of social media in enabling an impact to take effect on citizens as opposed to a general use of the popular Facebook. Overall, the interview protocol acted as a framework to ensure that all participants were asked the same set of questions.

4.3.4 Data collection

The interviews took place at the work places of the activists during working hours (with the exception of two participants who preferred to be interviewed at a cafe). With the permission of the participants, these interviews were recorded using a digital recorder. The interview sessions ranged from 35 to 60 minutes in duration. All the interviews were conducted individually and transcripts were manually transcribed for coding and analysis (Miles & Hubberman, 1994; Cresswell, 2013).

4.3.5 Consent

Approval was granted by the Graduate Business School to: (1) conduct interviews (2) conduct web analysis (3) conduct expert studies; (4) conduct pilot surveys; and (5) administer the survey. Consent was received from the interviewees. An informed consent form was signed by the interviewee before proceeding with the interview. An example of the informed consent form is in Appendix 4. Consent was also received from gatekeepers of various organisations to conduct the survey with their staff. According to Cresswell (2013, p.188), it is important to gain access to research or archival sites by seeking approval from gatekeepers, ‘individuals at the site who provide access to the site and allow or permit the research to be done’. This study adopts a similar understanding of a gatekeeper by Cresswell (2013). Gatekeepers in this research refer to employees of managerial or higher positions in an organisation who have the authority to provide consent for relevant staff to participate in the survey. A similar meaning to this term has been used by Brown and Viswanath (2005).

4.3.6 Data analysis

Data analysis involves attaching data to constructs and drawing linkages between constructs, such as a visual display (Lillis, 2006; Miles & Huberman, 1994). In this study, content analysis was applied to: (1) identify the prevalent social problems; and (2) identify the modes of online civic engagement (i.e. the constructs) in using social media to address the determined prevalent social issues. Content analysis was applied to transcribe the interviews manually according to a classification scheme adopting the method by Miles and Huberman (1994). This classification scheme allows for data to be identified and indexed.

Content analysis allows for relevant statements to be quantified into themes and frequencies. The validity of a content analysis scheme is dependent on the ability to code all the data in the interview transcripts and the precision of coding categories (Dasborough, 2006). A precise coding category is mutually exclusive. As such, the statements should only fit one code (Kerlinger, 1964). Further, coding is able to simultaneously mechanically reduce data and analytically categorise the data (Neuman, 2006).

After the interviews, the transcripts were coded. A two-iteration process of analysing the data was applied to the interview transcripts. Two questions defined the two-iteration data analysis process (i.e. 1. What are the prevalent social problems in the country? 2. How are activists using social media to address social problems?). For example, the first iteration aimed to identify prevalent social problems. As such, data were initially coded based on the social issues identified in the literature. New codes were added to the coding scheme, and, where necessary, existing codes were modified. The second iteration was undertaken to relate the concepts or categories to each other (Corbin & Strauss, 2008). Codes generated during the first-level of coding resulted in a large number of social problems and were reviewed for how they could be grouped together or subsumed into categories, thus creating a smaller number of themes. Visual displays (Miles & Huberman, 1994) were utilized to view the data from a broader level. This second iteration is the axial coding process that grouped the social issues identified in the earlier iteration into themes (e.g. crime, quality of education). The same procedure was repeated to identify the modes of online civic engagement behaviour on social media by activists. Similarly, the second question (i.e. How are activists using social media to address social problems?) defined the two-iteration data analysis process for identifying the modes.

4.3.7 Data validation

Field research is to be subjected to the same rigour and unbiased execution as other research (Ahrens & Dent, 1998). Therefore, it is important to address the significant threats of the reliability and validity at the interview data collection and data analysis phases. The interview data were validated by data triangulation and reliability checks. This was the seventh step in Phase 1 (see Figure 4.1).

4.3.7.1 Internal validity: Data triangulation

Internal validity was achieved by data triangulation, which involves using a variety of data sources. Data triangulation provides the benefits of (1) taking advantage of the strengths of each type of data source; and (2) the corroboration of data among sources as exemplified by Reich & Benbasat (2001). The corroboration of data was best achieved among the interview participants. At this level of corroboration, the interviews were conducted with experts representing different backgrounds and experiences with civic engagement and social media. These experiences varied predominantly according to the types of social issue and social media they were familiar with. The interviews were analysed for commonalities and contradictions to determine common threads and observations that are contradictory to theory (Lillis, 2006). Further, the interview findings were compared with other data sources, such as past literature to determine if there was a difference in the understanding of the identified issues and online civic engagement modes between interview findings and other data sources. Moreover, the interview data on the ways social media was used for civic efforts were also checked against the findings from the web analysis in Phase 2. The outcome was the identification of modes were unique to online civic engagement behaviour in the context of addressing prevalent social issues. Also, in ensuring internal validity, clarification of

the researcher bias (referred as the interviewer bias in this study), was articulated in section 4.3.8.

4.3.7.2 External validity

The primary strategy utilized in this study to ensure external validity was the provision of rich detailed descriptions as recommended by Merriam (1988) ‘so that anyone interested in transferability will have a solid framework for comparison’ (cited in Creswell, 2013, p.211). These descriptions are presented in Chapter 5. In addition, the qualitative section (Phase 1 and Phase 2) of this study was reviewed by an IS PhD academician who is experienced in qualitative research methods. This person looked over many aspects of the research, in particular, the relationship between the research questions and the qualitative data, the level of qualitative data analysis from the raw data through interpretation.

4.3.7.3 Construct validity

The construct validity of online civic engagement behaviour was measured in two ways. First, by comparing the determinants identified from the interview and web analysis data with the determinants identified in literature. Second, the construct validity of the modes of online civic engagement in the model was also determined by Confirmatory Factor Analysis (CFA) using the software known as Analysis of Moment Structures (AMOS). The empirical analysis was based on the social media usage for civic efforts captured by the survey. This is discussed in Chapter 8.

4.3.7.4 Reliability checks: Inter-coder reliability and intra-coder reliability

The key element of reliability is reproducibility (Krippendorff, 2012). Double-coding as a means of checking reliability is recommended by Miles and Huberman (1994). This

includes (1) two or more researchers coding the same field data (inter-coder reliability) or (2) one researcher coding a segment of data at two different periods (intra-coder reliability), with no particular time frame specified.

The two reliability checks applied in this study are inter-coder reliability and intra-coder reliability. Inter-coder reliability of the content analysis is reflected in the numerical index of the extent of per cent agreement between the researcher and another coder (Lombard et al., 2002). Intra-coder reliability is the level of agreement when the same coder re-analyses the same text after some time has elapsed (Krippendorff, 2012). Although, there are no established standards, the general acceptable levels are ‘.90 or greater would be acceptable to all, .80 or greater would be acceptable in most situations, and below that, there exists great disagreement’ (Neuendorft, 2002, p.145). In this study, the researcher recoded the same text after a period of one month. Appendices 5, 6, and 7 are the instructions and examples of the inter-coder and intra-coder reliability matrix.

4.3.8 Interviewer bias

The major threat to data quality and reliability arises from the closeness of the researcher to the research and the potential to project bias throughout the study (Lillis, 2006). The researcher had to consciously take a neutral stance during the interviews in order to ensure that the data captured during the interviews were not biased. Further, this neutral stance was maintained during data analysis to ensure that the results were not biased. This neutral stance was achieved when interviewees were asked to define and explain their definition and understanding of the issues that were discussed. Moreover, the researcher refrained from agreeing or disagreeing to any statements made by the interviewee. This included refraining from actions, such as showing confirmatory

gestures and verbal cues. This prevented the researcher from assuming that the understanding of an issue was the same as that of the interviewee.

4.4 Phase 2: Web analysis

4.4.1 Introduction

Web analysis is described as the content analysis of social media sites. The aim of Phase 2 is twofold. First, it addressed Research Question No. 1 (How are social media users engaging in online civic engagement behaviour?) by observing how the interviewees and/or their organisations used social media to address the social issues mentioned. Secondly, it served as a validation method of the interview answers concerning the usage of social media for civic engagement. Phase 2 included secondary data collected from the interviewees' organisational websites (their social media sites), their blogs and Facebook accounts for evidence. The multiple sources ensured that facts stated by one cluster could be verified by the other. In this case, the code descriptions developed in Phase 1 were verified by observing the data posted on the activists' blogs, their tweets, their organisation's websites and their Facebook timelines.

4.4.2 Data Collection

Upon completion of each interview in Phase 1, each interviewee was added to the researcher's Facebook account, with the exception of two activists who are public figures, to be able to view their timeline and to keep in touch for further questions. 'Timeline posts' are comments made by group members on a central group webpage and serve as a way to query or communicate with all group members (Facebook, 2012b). The more conversational 'discussion groups' represent topic-based threads initiated by a single member and continuing to allow other group members to respond to the initial comments and any subsequent comments in the discussion topic.

Other observed items are from the activists' organisations, online columns and personal blogs. Relevant discussions, posts and activities like shared links and images that amounted to activism according to Denning (2000) were captured. The data obtained were used to validate the code descriptions gathered from Phase 1, which led to one of the five modes of online civic engagement.

4.4.3 Data validation

4.4.3.1 Internal validity

Internal validity was achieved by data triangulation, which involved using a variety of data sources. The corroboration of data was best achieved among the social media sites of the interviewee participants. Further, the web findings were compared with other data sources (e.g. interview findings and literature) to determine if there was a difference in the understanding of the online civic engagement modes between the web findings and other data sources.

4.4.3.2 External validity

The external validity design was similar to that of section 4.3.7.2 except that the qualitative method used in this phase is web analysis and the results are presented in Chapter 6.

4.4.4 Reliability checks: Inter-coder reliability and intra-coder reliability

The two reliability checks applied in this study are inter-coder reliability and intra-coder reliability. Inter-coder reliability of the web analysis is reflected in a numerical index of the extent of agreement between the researcher and another coder (Lombard et al., 2002). One independent rater with qualitative background was given the screen captures

of the analysis and was asked to code according to given list of modes based on the respective definitions derived from the literature findings. The remaining procedures are the same as described in section 4.3.7.4. Appendices 5 and 8 are the instructions and examples of the inter-coder and intra-coder reliability matrix.

4.5 Phase 3: Development of a new scale: online civic engagement behaviour

4.5.1 Introduction

The online civic engagement model developed from the literature review and Phases 1 and 2 was tested through a survey in Phase 3, the development of a new scale for online civic engagement behaviour. The new scale developed from Phase 3 aimed to measure online civic engagement behaviour among social media users. The new scale was tested to see how well it works with an adapted measure from the literature, i.e. to examine the relationship between online civic engagement behaviour (new scale) and virtual social skills (adapted) of social media users. The purpose of including virtual social skills was to determine the covariance of the new modes with another variable other than its modes. Moore and Benbasat (1991) proposed that the steps in the development of an instrument are: (1) item creation; (2) scale development; and (3) instrument testing. The steps undertaken in Phase 3 are outlined in Figure 4.1.

Expert studies were employed to validate the new scales of measurement (see step 3 in Phase 3, Figure 4.1). Appendices 9 and 10 are the validation matrices. Pilot surveys were conducted to validate the survey instrument (see steps 5 & 7 of Phase 3, Figure 4.1). Appendix 11 is the pilot survey for the new scale development. The outcome of Phase 3 was fed into the survey (Appendix 14) that was administered to social media users along with the invitation letter to participate in the survey (Appendix 13).

4.5.2 Sampling

At the scale development and instrument testing steps of the instrument development process, input was required from academics and practitioners in different capacities (see step 1 of Phase 3, Figure 4.1). In developing the scales of measurement, expert studies were conducted. Experts were required to match survey items with constructs based on their understanding of online civic engagement behaviour. These constructs are the modes of civic engagement in the context of social media usage. Scale development requires that experts possess a level of knowledge to exercise judgment in matching the items and constructs, and, where required, to suggest new construct labels and definitions. Therefore, criterion sampling was applied to identify experts. The selection criteria for an expert were:

- (1) Local citizens who are social media users (i.e. at least with an active Facebook account); and,
- (2) An academic or postgraduate student who has undertaken research in either one or a combination or all of the following fields: (a) social media; (b) psychology; (c) sociology; (d) political science; and/or (e) law; or,
- (3) A working individual in either one or a combination or all of the following fields:
(a) information systems; (b) welfare or working for an NGO; (c) law.

As with Phases 1 and 2, activists were included in the sample because of the nature of their work and experience in civic engagement and the use of social media for civic efforts. Therefore, they were appropriate proxies for experts. The preferred target was an equal number of academics and practitioners.

In testing the instrument, the initial pilot surveys in hard copy format were administered to postgraduate students. The first aim of this test was to ensure that the mechanics of

compiling the questionnaire had been adequate. This was accomplished by having the respondents complete the questionnaire and then comment on its length and working instructions. The second aim of the test was to make an initial reliability assessment of the scales. Therefore, the criteria for these initial pilot survey participants were: (1) they are working adult citizens who are social media users with experience in civic efforts; or (2) they are academics or doctoral students that have previously used surveys in their research. A total sample of 20 social media users who met the aforementioned criteria were selected.

The last stage of the development process was the second pilot test or the field test for the newly developed instrument on online civic engagement behaviour items. The main intention for this pilot field test was to test the new developed constructs and to determine the covariance of the new modes with another variable other than its modes. The aim of this pilot test was to conduct the EFA, followed by a reliability assessment of the measurement scales and to develop the measurement model. Therefore, the criterion for this sample was that they are representative of the target respondents (i.e. citizens who are working adult social media users). The sample for this pilot test included 150 adult (18 years of age and above) Facebook users made up of: 30 activists; 30 Information Systems (IS) professionals; 10 IS academic staff; 10 Non-IS academic staff; 20 academic staff; 50 public members who are working.

4.5.3 Item creation

The objective of this first step was to ensure content validity. According to Davis (1989, p. 323), psychometricians emphasize that the validity of a measurement scale is built in from the outset and often recommend the 'domain sampling model (Bohrnstedt, 1970; Nunnally, 1978) which assumes there is a domain of content corresponding to a variable

that one is interested in measuring'. Davis (1989) continued to explain that candidate items representative of the domain of content should be selected. Following the recommendations of Davis (1989) and Anastasi (1986), the items used to construct the online civic engagement behaviour scale were derived from the definition and the content domain of Internet activism by Denning (2000). For this study, the term Internet activism is used interchangeably with online civic engagement.

To generate a sample of items, first, as many items as possible were identified and modified from existing similar scales that fit the construct definition and its content domain. Additional items were then added to improve the quality of the scale. Items were created in such a way to express or strongly imply the five modes embedded in the construct definition, yielding an initial pool of 25 items. After the creation of new items, all items were re-evaluated for content validity. Redundant and/or ambiguous items were eliminated. Two IS professionals, two activists and two PhD academics, who were all social media users, were asked to evaluate the phrasing and clarity of the indicators and adequacy of the domain coverage.

At this stage of the instrument development process, the researcher chose a suitable response format by considering the response formats applied in previous instruments (e.g. yes/no variables and degree of agreement). Subsequently, the scales of measurement were developed.

4.5.4 Developing new scales of measurement and validation

Scale development is the process of engaging panels of judges, or, in this case, experts, to classify the items in the predetermined modes (content domain of the construct). The draft scales were pre-tested by experts using a technique similar to that applied by Bassellier and Benbasat (2004) and Benbasat and Moore (1991). The items in each

category were re-examined for content validity. Items that are inappropriately worded and/or ambiguous have to be eliminated. The aims of scale development are: (1) to assess construct validity of the scales that are being developed; and (2) to identify items that are still ambiguous. Construct validity is achieved when: (1) there is agreement among experts about the suitability of the match between the items and the constructs; and (2) the item demonstrates convergent validity with the related construct and discriminant validity with other constructs.

4.5.4.1 Validating scales: Expert studies

Expert studies were conducted to develop the scales of measurement. The expert panel comprised of four academics, two IS professionals and two social activists (all social media users) who reviewed and critiqued the survey measures (Neuman, 2006). Each expert was required to match the various items into construct categories. The technique used in this study was similar to the process applied by Bassellier and Benbasat (2004), and Benbasat and Moore (1991) to sort items into construct categories. A scale validation matrix was designed for this purpose. Appendices 9 and 10 are the scale validation matrices for the expert studies, which were based on the items generated from the literature findings and the outcome of Research Question 1.

Each matrix provided a list of definitions for each construct and a list of survey items. Experts were required to match each survey measure with the constructs to determine the validity of the measures. Where an expert decided that an item was ambiguous, they were asked to identify all potential constructs that match the item. Next, they were asked to explain their reasons for identifying more than one construct. The construct validity of the scales of measurement increased when there was a match of the constructs with the measures. Feedback from all experts was used to revise the measures

for a second round of validation by a different group of experts. In this second round of validation, measures were revised to increase clarity or were eliminated where there was low construct validity.

Two measures of inter-rater reliabilities were applied to determine the level of agreement among the experts (Moore & Benbasat, 1991). The first measure is Cohen's κ (Cohen, 1960), which measures the level of agreement among categorical items. Landis and Koch (1977) suggest that Cohen's κ of 0.60 and above indicates substantial agreement between the match of the items and constructs. Further, Moore and Benbasat (1991) proposed that scores above 0.65 are considered to be acceptable.

The second measure of construct validity was based on the frequency with which the panel of experts placed items within the intended theoretical construct (Moore & Benbasat, 1991). This frequency is a measure of the reliability of the classification scheme and the validity of the items developed for this study. The level of agreement among the experts is calculated as the percentage of items matched with the intended construct. Construct validity is measured by the correct match between the items. The higher the percentage of the correct matches, the higher the construct validity. Therefore, there is a higher chance of good reliability scores being achieved. Moore and Benbasat (1991) do not provide guidelines for interpreting this measure as their aim is for this measure to highlight potential problems with the judging process. The outcome of scale development was a set of refined scales of measurement. These scales were subjected to testing in the pilot surveys.

The next step in developing the survey instrument was to undertake a test of the new scale development in the form of a survey instrument. In this study, a pilot survey was

designed from the items representing the constructs. The survey consisted of two sections: (1) the new measures of the latent variables for online civic engagement behaviour and (2) an adapted measure of one dependent variable. The response format was a Likert-type scale with responses ranging from strongly disagree (1-point) to strongly agree (7-points). These pilot surveys were administered in hard copy format.

4.5.4.2 Initial pilot survey

The initial pilot survey was administered to a small sample of postgraduate students. The aim of this pilot survey was to ensure the clarity of the wording of the survey instrument and that target respondents would be able to understand the survey requirements. Pilot survey participants were asked to provide feedback on the length, instructions, and wording of the survey. Revisions were made to the initial pilot survey before administering the second pilot survey.

4.5.4.3 Second pilot survey (Field Test for new measures)

The second pilot survey (field test for Phase 3) was administered in hard copy format to working adult social media users who are citizens of the country. The aim of this pilot test was to conduct the exploratory factor analysis, followed by a reliability assessment of the measurement scales and to develop the measurement model.

4.6 Phase 4: The Survey

4.6.1 Introduction

Survey methodology was chosen for this phase of the research for three reasons: 1) it would allow triangulation of data; 2) it would permit statistical tests to the hypotheses; 3) it would provide statistical evidence about construct reliability and validity. The evaluation of the strengths and limitations of surveys for data collection precedes the

discussion of this study's sampling criteria. The steps undertaken in Phase 4 are outlined in Figure 4.1. Appendix 13 is the invitation letter to the participant. Appendix 14 is the survey questionnaire.

4.6.2 Advantages and limitations of using surveys

According to Newsted, Huff and Munro (1998), surveys are among the more popular methods used by the Information Systems researchers. Some of the reasons include the ease of administering, scoring and coding; the ability to allow the values and relations of variables and constructs to be determined; provide responses that can be generalized in similar populations; surveys are reusable; allow behaviour to be predicted; permit theoretical propositions or hypotheses to be tested in an objective fashion; and can assist in confirming and quantifying the findings of qualitative research. Recent research in social media have also used surveys for news consumption (Raacke & Raacke, 2008; Barker, 2009; Java et al., 2009; Dunne et al., 2010; Kim et al., 2010; Loving & Ochoa, 2011; Lee & Ma, 2012; Gil de Zuniga et al., 2012).

Neuman (1997, p.38) listed two major advantages of self-administered questionnaires: (1) the research can be conducted over a wide area and distance is not a restriction, and (2) it will offer anonymity and avoid interviewer bias. Moreover, surveys have the advantage of: (1) accessing a larger sample size; and (2) capturing data that can be tested empirically (Neuman, 2006). However, self-administered questionnaires are also subject to some limitations including a lack of control over who responds to the questionnaire and whether or not that person consults with colleagues while completing it; low response rate; misunderstandings may occur and sampling is subject to error (Bourque & Fielder, 1995; De Vaus, 1996; Kerlinger, 1986; Oppenheim, 2000).

Measures were taken to overcome or minimize the limitations of self-administered surveys. These included the following:

- Explanations about the survey and the appropriate respondents to complete the survey were made to the gatekeepers or the appointed staff by the gatekeeper.

Note: Gatekeepers in this study's context are defined as employees of managerial or higher positions in an organisation who have the authority to provide consent for relevant staff to participate in the survey.

- The problem of a poor response rate was addressed by explaining the importance of the survey to participants; follow ups were conducted and by offering a copy of the results to the organisations who allowed their employees to participate in the survey.
- The survey was pretested to identify problems and to avoid confusion in the terms of the working or layout of the survey.

4.6.3 Survey instrument

Data for the analysis were gathered through the field survey method. The survey items included items adapted from the literature and the new items developed for online civic engagement behaviour (see Table 3.1 from Chapter 3). A three page questionnaire (see Appendix 12) was developed and tested specifically for the purpose of this study. A small pilot study (N=30) was used to pre-test the instrument for its reliability and to identify any ambiguities or faults in the method. The respondents were assured of anonymity.

4.6.4 Sampling Design

Purposive sampling (or sometimes referred to as criterion-based sampling) was applied in this study. According to Babbie (2007), purpose sampling is suitable when it is either impossible or impractical to compile a list of elements composing the population. To date, there is no readily available list of social media users in the country. Besides the total number of Facebook users in the country (Socialbakers, 2013), there are no other statistical reports that identify Facebook users or total social media usage in the country. Thus, this sample targeted Facebook users who were adult citizens (18 years of age and above) working in geographical areas of the highest Internet penetration. The study concentrated on Facebook because it is the most highly used social media in the country with over 13 million users (Socialbakers, 2012). According to the Malaysian Communications & Multimedia Commission (MCMC) Household Use of Internet Survey (2009), the Klang Valley conurbation has the highest percentage of users. This area comprising Wilayah Persekutuan Kuala Lumpur and adjacent districts of Selangor chalked a total of 39.5 per cent (MCMC, 2009). In the fourth quarter of 2012, the broadband penetration rate per 100 households indicated that the Klang Valley topped the list according to the Communications and Multimedia Pocket Book of Statistics (MCMC, 2012).

4.6.4.1 Respondents

Respondents were citizens who were Facebook users and were employees working in various companies in the Klang Valley that practiced Corporate Social Responsibility (CSR). Since this study measured virtual social skills, another criteria was that the respondents had to be working adults (18 years and above) whose work included online communication with colleagues and/or customers. According to Malaysia's stock exchange (Bursa Malaysia) official website, 'CSR is open and transparent business

practices that are based on ethical values and respect for the community, employees...’ (Bursa Malaysia, 2010). Such efforts include civic activities that benefit the community, such as conserving the environment, providing education scholarships and sponsoring community projects. Targeting employees in companies that practices CSR is in line with the study’s focus on online civic engagement. It is assumed that that these employees were aware of civic activities and public concerns due to their company’s involvement in CSR. The respondents are sometimes referred to as practitioners in this study.

Some of the companies, which consented to their employees participating in this study, were referred by the interviewees. These referrals could be clustered into public listed companies (PLC) and non-PLCs. According to the Companies Commission of Malaysia (SSM) and Malaysia’s stock exchange (Bursa Malaysia), there is no available list of companies that practice CSR. Moreover, there is no available list of companies with business branches located in the Klang Valley. To only select companies registered in the Klang Valley, would result in a limited list of 14 PLCs (Bursa Malaysia, 2013). As such, selecting PLCs and non-PLCs with business branches located in the Klang Valley would improve its representativeness.

A list of the 1,017,941 million registered companies in the country for the year 2012 was available (SSM, 2013). This list includes PLCs and non-PLCs; 921 of the registered companies were PLCs (Bursa Malaysia, 2013). A company’s annual report had to be referred to for determining whether a business had a branch located in the Klang Valley and practiced CSR. Although there is no sampling frame for companies that practice CSR, it is a mandatory requirement for all companies listed on Malaysia’s stock exchange to disclose information on CSR activities in their annual report. As such, this

enabled the researcher to determine whether a public listed company practiced CSR activities via the retrieval of the company's annual report.

This study selected 10 per cent of 921, amounting to 92 companies for the study. This figure was rounded up to 100 for a wider representation of respondents from different companies. As such, a total of 100 PLCs that disclosed CSR practices and which also have business branches located in the Klang Valley were randomly selected. There were over 1 million non-PLCs in the country, with 380,707 non-PLCs registered in Kuala Lumpur and Selangor (areas in the vicinity of the Klang Valley) as of 2012 (SSM, 2013). Time and cost constraints did not enable the researcher to proceed even with 10 per cent of this number (38,070). As such, the researcher standardised the selected number for both clusters (PLCs and non-PLCs), and 100 non-PLCs with businesses located in the Klang Valley that practiced CSR were randomly selected. The sampled non-PLCs were contacted via telephone and/or email to check if they met the criteria for the study. In the event that the researcher sampled a company that did not practice CSR or did not have any business in the Klang Valley, another company was selected again until 200 companies, which met these two criteria were compiled.

Past IS studies on perceptions or behaviour (where the unit of analysis were individuals) indicated that the number of companies selected for consent to allow their employees (or students) to participate in the studies ranged from 1 to 2,000 in a selected area (see for example Harrington, 1996; Viswanath & Morris , 2000; Barki & Hartwick, 2001; Gefan et al., 2003; Ahuja & Jason Bennett, 2005; Gee-Woo et al., 2005; Dinev & Hart, 2006 Luo et al., 2010; Mou et al., 2013). These IS behaviour and perception studies indicated that there is no fixed rule or number for sampling the companies for consent when the unit of analysis is the individual. The 200 randomly selected companies, as

explained earlier, were derived from an estimated 10 per cent of the PLCs (amounting to 100 PLC companies) based on the sampling frame list from Bursa Malaysia and selection of 100 non-PLCs based on the sampling frame list from Companies Commission of Malaysia (SSM).

4.6.4.2 Sample size

There are over 13 million Facebook users in the country (Socialbakers.com, 2013). Based on the Krejcie and Morgan Table (1970), the appropriate number of respondents for this study is sufficient and justified at 400. However, the study aimed to distribute 1,000 surveys for a wider coverage and representation of respondents from different companies. Past IS studies in behaviour and perceptions of IS users have also aimed at distributing a number of surveys close to 1,000 for better representation of respondents (see for example Ahuja & Jason Bennett, 2005; Gee-Woo et al., 2005; Dinev & Hart, 2006; Wang & Haggerty, 2011; Zuniga et al., 2012). This study followed the approach of these scholars.

The number of distributed surveys in the actual distribution was dependent on the number of companies that gave consent to allow their employees to participate in the survey. In total, 96 companies responded positively. Ten surveys were distributed to each company. When multiplied by 96 companies, the total number of surveys distributed, which was 960, was close to the targeted sample size of 1,000. Moreover, some of the comments from the gatekeepers indicated that they did not want too many employees to be committing their working time for the survey.

Thirteen of the 200 companies from the PLC and non-PLC clusters were referred by the interviewees in Phase 1. Ten of these referrals were non-PLCs while three were PLCs.

The remaining 187 companies were randomly selected from the Main board list of Bursa Malaysia and registered list of companies by the Companies Commission of Malaysia (SSM) as of 2012.

Organizational gatekeepers were contacted via email and/or telephone to obtain permission for their staff to participate in the survey. Gatekeepers in this study's context included employees of managerial or higher positions in a company. When a company consented to their staff participating in the survey, a letter of invitation to participate in the survey and the survey instrument were sent by hand from the researcher to the gatekeeper or staff member delegated by the gatekeeper for distribution. The letter of invitation outlined the purpose of the survey, and the contact information of the researcher. A ten-minute briefing on the criteria of the samples was explained to the gatekeeper or delegated staff when the surveys were handed over to them. Of the 200 companies contacted, 128 responded of which 91 of the respondents gave consent for their staff to participate in the survey. Companies that did not respond after 14 days from the initial request were contacted by telephone and/or email and a follow up was made. Only nine companies responded to this follow-up of which five provided consent to conduct the survey. Time and cost constraints did not enable the researcher to proceed with a second follow-up.

In total, 96 companies responded and gave consent for the data collection on the condition that the company and its employees would be assured of anonymity. This meant that even the indication of the company being a PLC had to be removed from the questionnaire. Consequently, this study could not keep track of the type of company the respondents were from. Each of the companies that provided consent for the data collection was provided with a set of ten surveys to be distributed to their staff. This

resulted in 960 surveys being distributed, which was close to the initial target of 1000. Collection of the completed surveys was conducted by the researcher after 14 days or at an appointed date. The data was collected between 21 February and 15 May 2013. Figure 4.1 and Table 4.2 summarize this section.

Table 4.2 Summary of Phase 4’s purposive sampling

Population	Unit of analysis
Employees who meet all of the following criteria: <ul style="list-style-type: none"> • adult citizens (18 years and above) • Facebook users • working in the Klang Valley • working in company that practices CSR • whose work includes online communications 	Employee

Note: The Klang Valley was identified as the geographical area with the highest Internet density in the country.

Adult citizens who were Facebook users working in:

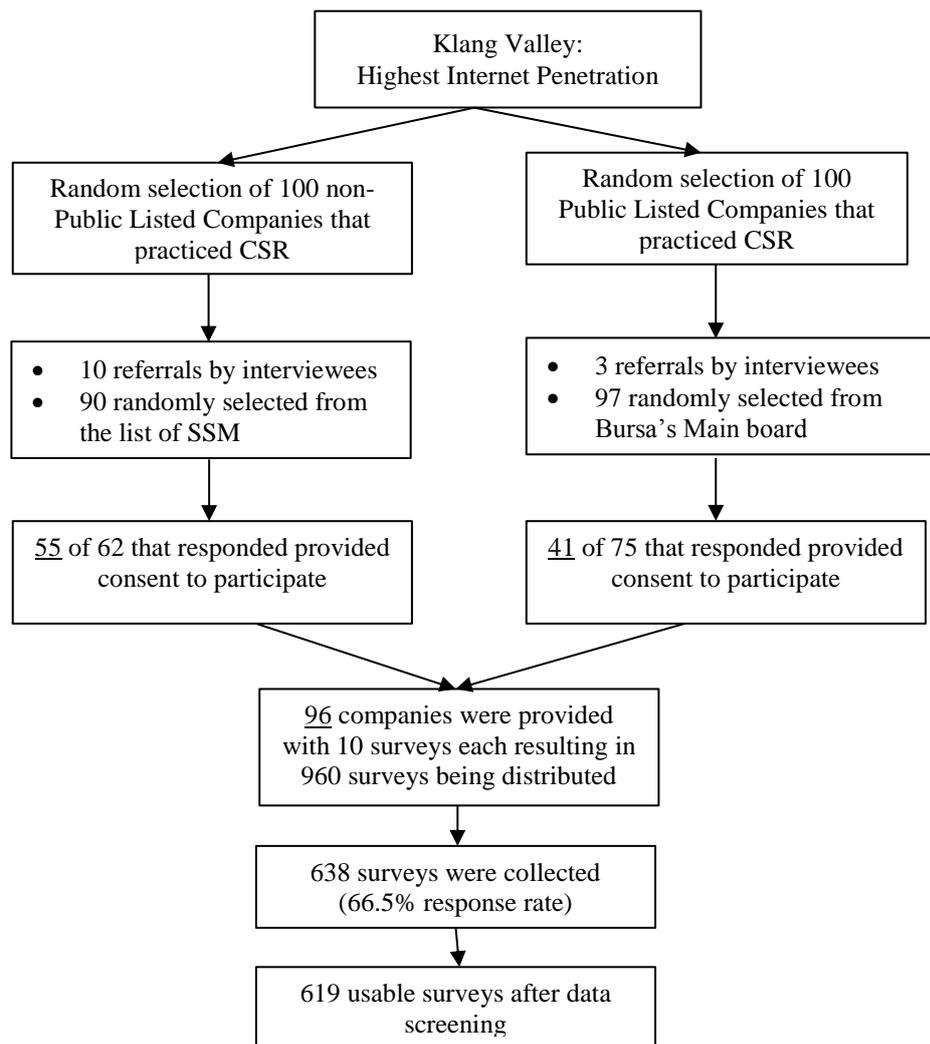


Figure 4.2 Overview of the sampling procedure

4.6.5 Data screening

The data screening procedure was conducted to ensure variable purification and that the data were useful, reliable and valid prior to statistical testing. Statistical Package for the Social Sciences (SPSS) version 20 was used for screening the data. Moreover, testing the assumptions for multivariate analysis is necessary as the violations of the assumptions.

The following six screen steps were taken:

i. Missing Data and Data Consistency

Cases with any missing data were removed and the resulting sample was checked for consistency.

ii. Outliers

Removal of outliers can lessen the probability of Type I/Type II errors and increase accuracy of estimates (Osborne & Overbay, 2004). Outliers are defined as values that are ‘...3 standard deviations of mean’ (Mertler & Vannatta, 2005, p. 28). To detect outliers on each variable in the model, boxplot in SPSS was used. Identified outliers were deleted based on the recommendation of Tabachnick and Fidell (1989).

iii. Normality

Normality refers to the shape of the data distribution for an individual metric variable and its correspondence to the normal distribution (Hair et al., 2006). When the ultimate aim of research is to make inference, then screening for normality is an important step in multivariate analysis (Tabachnick & Fidell, 2007). Hence, both the univariate and multivariate normality were checked. Also, following the recommendation of Fabrigar et al. (1999), the distributions of measured variables need to be examined to ensure normality prior to conducting Maximum Likelihood extraction in Exploratory Factor Analysis. For the univariate analysis, all items for skewness and kurtosis fall within the acceptable standard range of +1.96 and – 1.96 at the 0.05 error level, indicating that the data can be assumed to be normal (Hair et al. 2006). For multivariate normality, the cutoff absolute values ought to be less than 20 for the kurtosis index (Klein, 2005) and less than 3 for the skewness index to ensure no serious departure from normality.

iv. Linearity

In this study, the test of linearity was assessed using the deviation from the linearity test available in the ANOVA test and the linear regression test in SPSS. A deviation of less than 0.05 for the ANOVA test of linearity or a significance p-value of less than 0.05 for the Ordinary Least Squares (OLS) linear regression between each independent variable and dependent variable pair indicates that the relationship is sufficiently linear.

v. Homoscedasticity

Homoscedasticity refers to the assumptions that dependent variable(s) exhibit equal levels of variance across the range of independent variable(s) (Hair et al., 2006). The test of homoscedasticity is needed because the variance of the dependent variable being explained in the dependence relationship should not be concentrated in only a limited range of the independent values (Hair et al., 2006). Homoscedasticity was tested in this study using scatter plots in SPSS.

vi. Multicollinearity

Multicollinearity refers to a situation where two or more of the independent variables are highly correlated (Cooper & Schindler, 2003). Multicollinearity problems cause the ability to define any variable's effect to diminish, owing to their interrelationships (Hair et al., 2006). Common measures for assessing multicollinearity are tolerance and variance inflation factor (VIF). According to Kline (2005), a smaller VIF value, usually less than 10.0, and tolerance value of greater than 0.10 but less than 1.0 would suggest the absence of multicollinearity. To check for multicollinearity, the VIF is calculated for each independent variable after running a multivariate regression using one of the independent variables as the dependent variable, and then regressing it on all the remaining independent variables.

4.6.6 Test of measurement model – EFA and CFA

A confirmatory factor analysis (CFA) was conducted on the model to identify latent variables that account for the correlations among measured variables in the research. According to Fabrigar et al. (1999), an exploratory factor analysis (EFA) can be conducted in an initial study to provide a basis for specifying a CFA model in a subsequent study, as in the studies depicted by Information Systems scholars, such as Choi, Lee and Yoo (2010), Majchrzak, Wagner and Yates (2013) and Chee-Wee, Benbasat and Cenfetelli (2013).

4.6.6.1 Exploratory factor analysis

Exploratory factor analysis was conducted for all reflective measures including the newly developed measure for online civic engagement behaviour (civic expressions and civic actions) and other adapted measures (trust propensity, social media trust, group incentives, reputation, satisfaction in life and virtual social skills). The maximum likelihood method was used to extract the initial factors, while an oblique method was applied in the rotation phase to take into account the correlation factors, as recommended by past studies (Choi et al., 2010; Fabrigar et al., 1999; Pedhazur & Schmelkin, 1991).

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy for this data follows the standards recommended by Norusis (1994). This test indicates the appropriateness of factor analytic techniques in this study. A minimum loading of 0.4 was set for any variable used to define a factor. Items with factor loadings less than 0.4 were suppressed and dropped from the analysis. Each item's communality was also taken into consideration to assess if the items met acceptable levels of explanation. Items with a communality less than .50 were considered as not having sufficient explanation (Hair et

al., 2006) and were dropped. Factors that achieved eigenvalues greater than one were considered as significant; conversely, this study did not include factors with eigenvalues of less than one.

Factor loadings indicate the correlation between the variables and the factors so that variables that have large loadings on the same factors are grouped. The larger the absolute size of the factor loading, the more significant the loading is in interpreting the factor matrix (Hair et al., 1995; 2006). A factor loading value of 0.50 and above is considered good and very significant; 0.45 as fair and 0.32 and below as poor (Comrey, 1973). This study adopts Hair, Black, Babin, Anderson and Tatham's (2006) recommendation on factor loading values, a factor loading of 0.30 to be significant, and a factor loading of 0.50 as very significant.

4.6.6.2 Test of common method bias

To minimize the threat of common method bias, multiple working adult Facebook respondents (PLCs and non PLCs' employees from 96 different companies) were used for data collection. Second, Harman's post hoc single-factor analysis was conducted to examine for method bias in the data. If common method variance is a serious issue, a factor analysis would generate a single factor accounting for most of the variance (Podsakoff et al., 2003).

4.6.6.3 Confirmatory factor analysis

A confirmatory factor analysis (CFA) was conducted to (1) validate the psychometric properties of the instrument, (2) examine whether the measurement model achieved an acceptable goodness-of-fit, and (3) investigate its unidimensionality, convergent and discriminant validity, and reliability. The CFA stage was performed on the entire set of

items simultaneously. Maximum likelihood estimations were employed for the model assessment. All the necessary steps in the measurement model validation and reliability assessments were conducted following Hair, Black, Babin, Anderson and Tatham (2006), Bollen (1989), Fornell and Larcker (1981), and Bagozzi (1980).

4.6.6.4 Unidimensionality and convergent validity

All factor loadings in the CFA model need to be significant and exceed 0.5 (Hair et al., 2006) to reflect unidimensionality and convergent validity (Bollen, 1989). In addition, the average variance extracted (AVE) for each must be higher than the recommended minimum value of 0.50. All items have to be significantly related to their specified constructs in order for the data to support the convergent validity of the CFA model.

4.6.6.5 Discriminant validity

For establishing discriminant validity, the AVE estimates for each factor are compared with the squared inter-construct correlations associated with that factor (Hair et al., 2006). The AVE between correlations should be less than 0.70 and less than the square root value of the AVE.

4.6.6.6 Reliability

Construct reliability (referred to as the composite reliability) and AVE are additional measures of internal consistency. The construct reliability indicates the per cent variance in a measurement captured by the trait variance (Bagozzi, 1980). Compared with Cronbach's alpha, which provides a lower bound estimate of the internal consistency, the construct reliability is a more rigorous estimate for the reliability (Chin & Gopal, 1995). The recommended values for establishing a tolerable reliability are above 0.70 (Werts et al., 1974; Gefen et al., 2000) and for strong reliability – above 0.80

(Koufteros, 1999). The lowest composite reliability for our model is 0.815 and all estimates of AVEs are above 0.6, which provide further evidence of the scales reliability (Bagozzi, 1980, Fornell & Larcker, 1981; Koufteros, 1999).

4.6.7 Model Fit

The chi square/df, referred to as χ^2/df , is recommended to be below the desired threshold of 3.0 (Hair et al., 2006) or below the minimum level of 5.0 (Wheaton et al., 1977; Hong & Thong, 2013). The root mean squared error of approximation (RMSEA) has a 0.08 cut-off level. In addition, the normed fit index (NFI), Tucker Lewis index (TLI) and confirmatory fit index (CFI) are required to be 0.90 or greater. Finally, goodness-of-fit index (GFI) and adjusted GFI (AGFI) thresholds are suggested as being greater than 0.8 to ensure that the measurement model fits the data well (Joreskog & Sorbom, 1988; Doll et al., 1995; Zikmund, 2003; Lee Y. et al., 2012).

4.6.8 Mediating effects

The mediating effects of the modes of online civic engagement were tested using AMOS. The tests began with the examination of the relationships between the independent variables and dependent variables without the mediator. This was followed by an analysis of the same model with the mediator and the indirect effects. The details are in Chapter 8.

4.7 Chapter summary

This chapter outlined the research design for this study. In Phase 1, a face-to-face interview study with social activists was conducted to identify the ways they used social media for civic engagement and to identify the prevalent social problems. Both Phases 1 and 2 (web analysis) revealed the modes of civic engagement. The qualitative data were

analysed using qualitative content analysis and validated via triangulation. The outcome from the interviews and web analysis results are: (1) the modes for online civic engagement behaviour and (2) the identification of the prevalent social problems.

The findings from Phases 1 and 2, and the past literature on the modes of online civic engagement were used to derive and assess new scales of measurement by a series of expert studies for Phase 3. Subsequently, the outcome for Phase 3 was fed into the research model and the hypotheses were revised (see Chapter 7). Phase 4 captured the survey results that were tested empirically using structural equation modelling with AMOS (see Chapter 8). This measurement and structural models were empirically tested, and assessed for reliability and validity. The outcome was the validated model of online civic engagement behaviour and the results of the hypotheses. The results are tabulated in Chapter 8.

CHAPTER 5: INTERVIEWS WITH SOCIAL ACTIVISTS

5.1 Introduction

According to Hilgartner and Bosk (1998), every society has a normal quota of social problems at a given time. Some social problems interlock, such that each one can be seen as a symptom of another. They are sometimes entangled with the norms, behaviours, conflicting rights and the scarcity of resources (Levine, 2011). Articles in the World Bank Development Report 2011 imply that the impact of social problems if not recognized and alleviated, could hamper a nation's chance from progressing, which could be due to its expensive adverse effects for the state and society (Sherman, 2010; PEMANDU, 2009). Thus, it is important to address social problems, particularly with the potential of social media for fostering online civic engagement behaviour. This section of the study identifies the prevalent social problems and how activists are using social media to address social issues through face-to-face interviews. This chapter begins with an introduction to the interviewees followed by the content analysis of the interviews, validation and reliability of the results before concluding with a summary.

5.2 Participants

The participants in this study were 13 activists (11 men, 2 women), in a Malaysian township aged between 23 and 66. An activist has been defined as 'someone who tries to advance a substantive political or social goal or outcome' (Levine & Nierras, 2007, p. 1). For the purpose of this article, activists are considered as those who have engaged in any online or offline activity that has the aim of addressing a social problem. Semi-structured interviews were conducted using open ended questions at the thirteen activists' organisations or selected venue. Of the thirteen participants, two are public figures while another four are renowned national activists. Details of the interviewees are presented in Table 5.1. Although the researcher had initially planned to conduct

more interviews, the researcher realized that the thirteen activists coupled with the archival information observed from web analysis, had led to a point of data saturation (Strauss & Corbin, 1990). A fourteenth activist was added for confirmation, resulting in negligible new information. Aliases have been used to protect the privacy of the participants. An informed interviewee consent form was presented and signed by each interviewee before the interview began. An example of the informed interviewee consent form is provided in Appendix 4.

The interviews took place at the activists' work place or suggested venue during working hours. The face-to-face interview sessions ranged from 35 to 60 minutes and were recorded using a digital recorder. The transcripts were manually transcribed for coding and analysis (Miles & Hubberman, 1994; Cresswell, 2007). Segments of transcripts were labelled with code descriptions, and the applicable codes were then categorized into themes for identifying social problems and themes based on Denning's (2000) Internet Activism: collection of information; publication of information; dialogue; coordination for action; and lobbying decision makers.

Table 5.1 Details of interviewees

Interviewee	Background/Position/Affiliations
Participant No. 1	Senior Manager of a renowned local Non-Government Organisation (NGO); Advisor for Social Media Chambers in Malaysia and holds a high position in the International Social Media Chambers, a renowned Columnist for Malay Mail (local daily); Committee of the Malaysian Interfaith Network. A renowned national activist.
Participant No. 2	National Youth Icon, National Youth Icon for Volunteerism Programme Assistant (International and National) at International Youth Centre (Malaysia); Presidential experience in many youth leadership programmes in the country; National Trainer for Youth; and in the Youth Programme for the Cabinet Office of Japan. A renowned national activist.
Participant No. 3	Vice President of a renowned tertiary education university; a National Supervisory Psychologist; President of a renowned Psychological Society and holds a high position in the Malaysian Psychological Association (PSIMA). A renowned national activist.
Participant No. 4*	Chairman and Vice Chairman of renowned foundations including the Malaysia Crime Prevention Foundation (MCPF); and one of the trustees of Yayasan 1 Malaysia Foundation, an independent non-profit foundation established for the purpose of promoting national unity.
Participant No. 5	Founder of a Corporate Social Responsibility type of company; Project Adviser for the UNDP Malaysia (HIV & Leadership); Facilitator for the British Government for Regional Youth, Committee member for the Expert Panel for Aids Accountability International (Sweden). A renowned national activist.
Participant No. 6	Holds a high position and also an international humanitarian worker at My Corps; formerly a Web production and social media strategist at an oil and gas company.
Participant No. 7	Employee at Malaysian Mental Health Association; part of the Organizing Committee 30-Hour Famine HELP Camp under World Vision 2012.
Participant No. 8	Employee of Sime Darby; previously an intern with McKinsey; Main organizer for the 2012 30-Hour Famine HELP Camp under World Vision.
Participant No. 9	Social worker and IT Coordinator at an NGO.
Participant No. 10	One of the Managers at a British company; volunteer and prominent fundraiser for LEO Club & Summit Dharma Vihara (a non-profit organisation).
Participant No. 11	Risk Manager at an international bank and a volunteer for a local NGO.
Participant No. 12	Lawyer at the Government of Malaysia's strategic investment fund company.
Participant No. 13*	Head of one of the country's public complaints and services divisions.

Note: * Public figure with over 20 years of experience as a social activist for the country.

5.3 Interview results: Content analysis on the prevalent social issues

Three main themes emerged from the coded data on social problems: crime; disengagement from civic matters and moral values; and quality of education. The following sections present the findings based on the themes, followed by a sample of the excerpts that were categorized to the issue. The selection of excerpts for illustrations on the themes of social issues was randomly selected. The summary of these accounts in this section is presented in Table 5.2.

5.3.1 Crime

All thirteen activists mentioned crime as a major prevalent concern. The types of crime that were mentioned were property crime and violent crime (property crimes, such as theft, snatch theft, vehicle theft, machinery theft and house break-ins, and violent crimes, which include robbery, assault, rape and murder), corruption, drug addiction and possessions, (illegal immigrants, *Mat Rempits* (notorious bikers), baby dumping, scratch and win scams and kidnapping cases. Some of the crime illustrations by the activists are as follows:

Property and violent crimes – One of the thirteen participants described how frequent robberies were executed in his residential area and how one of the crimes exhibited aggressive violent behaviour, which he found disturbing, while another narrates an example of the unbecoming street crimes.

For me the biggest issue would be crime. Despite my great admiration for the GP [General Police officers] and the work that they do, but as for someone who was personally robbed and who also knows of friends and people in the community who have been robbed 3 times in the last 2 months, this reflects what's going on. For me the biggest issue would be crime. Crime is a major under reported issue in this country. Once, my mother was near the front gate of the house when a motorist pulled up and grabbed her fiercely, snatched her gold chain and was pushed over so roughly that she hurt herself.

- *Participant No. 5*

For example, the street crimes...Of course, sometimes the street crimes can be traumatic, such as snatch thefts reported in the media. As a result of the criminal act being committed against the person, the lady fell down and she was injured, and worse still, in the end she did not recover, she passed away. I have observed that most of these snatch thefts are actually committed by those who are high on drugs.

- *Participant No. 4*

Another activist who writes for a local daily concurs with the point that violent exhibitions of property crimes are on the rise.

Crime is a very big issue. I think that there is a concern about violent crime. It's a big problem. Today, even petty crimes are violent, even a snatch theft involves

violence. It is incomprehensible. Those days, you could see which were violent and non-violent, today this is difficult. Today even petty crimes are violent, they carry *parang* [huge knife] and knives, even for snatching handbags.

- Participant No. 1

Drugs – At times, social problems interlock, such that each one can be seen as a symptom of another. In the excerpt below, a renowned national social activist for over 30 years, describes how property crime is a result of drug addiction and possession.

It is my conviction that the problem of crimes in the country will never be addressed effectively if the problem of drugs is not tackled effectively. I say so because of my involvement in the Malaysian Crime Prevention Foundation since 1994. I've observed over the years that almost 50 per cent of the crimes are drug related, especially those that are related to less serious crimes.

- Participant No. 4

Drugs are an issue. There are a lot of cases of students who get the drugs sent to their houses. They get drugs from local and foreigners...if they (students) have no money then they will resort to other means...stealing...borrowing money illegally from the loan sharks and they get themselves and their family in trouble.

- Participant No. 13

Scams – One of the public figures who heads the complaints division expressed his concern about the malice of scams and the greediness of its victims.

I feel that many Malaysians are taking things for granted, they never learn. For instance, all these scratch win cases, in the last 10 years, it's been very serious, almost 30 cases. I have held press conferences over 30 times on these cases, on TV stations and on the Internet so that the whole world knows...most of the victims loose at least three thousand ringgit (about USD1,000) and those that come and see me are cases that are just the tip of the iceberg ..and yet so many, and these people, especially the young girls, can even follow anonymous people, even follow the taxi drivers and get cheated... It happens because these victims are greedy... even worse, some are even repeat cases. People don't seem to learn!

- Participant No. 13

Corruption – When discussing their perspectives on corruption, activists described the negative psychosocial ramifications resulting from bribes. The ramifications discussed centred on alienation and feelings of disconnection from the police, along with the far reaching consequences of stigma. Activists narrated their beliefs that

corruption has paralyzed the ability and mobility of the police to curb crime. Participant no. 3 provides one of the narrations:

I think the government will never be serious in tackling crime because I think they are in collaboration with syndicates. I mean, look, it's no big secret again, if the police are getting money from triads and syndicates to protect them, then why on earth would the police reduce crime? So, corruption to me is an issue.

- Participant No. 3

Compounding this problem is the stigma that the police are associated with receiving *duit kopi*, translated as 'coffee money', which refers to bribery in the local context. One participant who is also a prominent figure gives an example of this notion, which suggests that the public has a great lack of confidence in the police.

If a traffic policeman stops somebody on the road, supposedly you are passing by, what is the first thing that comes into your mind? Oh this chap must be negotiating for the traffic offence. This police is in the midst of *makan duit kopi* [Taking 'coffee money'].

- Participant No. 4

Mat Rempits – *Mat Rempits* is the term used for the notorious motorcyclists in the country. They have been linked to reckless driving, snatch thefts and road bullying. Malaysia's national youth icon contends that boredom has led our youth to delinquency in the following excerpt.

The top three social matters with youth will be *Mat Rempits*, casual sex and drugs, which are all linked. Baby dumping cases are related to casual sex, cases with theft is because they are involved with drugs, they want money to buy drugs, as for those *Rempits*... it's because they are bored at home...they don't get attention there or in school...

- Participant No. 2

Another youth activist sums up that it is the inability to control tempers that are making these motorists violent on the road, which is becoming an issue:

The drivers in Malaysia do not have courtesy. I think the younger drivers are violent. They need to know what courtesy is about and how to control their rage on the road. *Mat Rempits* are another example which is truly a disturbing issue. They are violent road bullies.

- Participant No. 7

Illegal immigrants – According to Participant No. 4, the growing number of illegal immigrants is a problem for the country. The following are excerpts of activists' opinions on this social matter.

The presence of these illegal immigrants or foreigners in the country is another social problem. All these illegal foreigners who want to come here, think that Malaysia will be a haven for them. And then when they arrive, they get themselves involved in crime and so this poses another social problem. And some of these foreigners can be very violent. For example when they break into the house, they don't only steal money and things, they even harm the victims, they slash them with the *parangs* (large knives) and with whatever tools they have.

-Participant No. 4

Illegal immigrants are a problem in the country. They end up having to survive on a day-to-day basis. Some of them end up becoming desperate for quick cash and resort to violent crimes.

- Participant No. 1

Baby dumping and kidnapping – Both women activists expressed their concern about the increasing number of cases of baby dumping and kidnapping cases in the country.

The following are examples of the excerpts depicting this problem as a social issue.

Because of the stigma of teenage pregnancy, babies are being abandoned, dumped in toilets, in the river and in the garbage bins. I think the increase of teenage pregnancy, especially unwedded youth, sort of has a link to the increase of babies being abandoned.

-
Participant No. 8

Mothers like myself are worried about the kidnapping cases... like the Nayati case...a ten year old boy can go missing while going to school. Children are being snatched or reported missing for months... this issue is ongoing and worse is that nothing seems to be done to deter the criminals. It scares mothers like me when I read these cases on Facebook and newspapers... on the other extreme, there are babies being dumped, how can a mother do such a thing?

- *Participant No. 9*

5.3.2 Disengagement from civic matters and moral values

The youth activist participants frequently labelled peers as being materialistic, selfish and disengaged with community concerns. The discussions concerning their experience in getting most peers to voluntarily participate in raising funds for food for the

undernourished were almost uniformly negative in connotation. The World Vision Camp leader describes one of her encounters of a disengaged youth from civic concerns.

I think people are getting more de-sensitized and are becoming more selfish than before. The youth are definitely more materialistic than before. For example, when I was promoting the 30-hour famine campaign where you need to pay RM80 (about USD 27) to participate, some will say “why should I pay RM80 for it, for RM80, I can eat a lot and buy stuff. Why should I spend that amount to join you for the cause?” They cannot see the intangible effects in the long term. What they see is their own personal environment, their personal happiness.

- *Participant No. 8*

On the same note but from a different perspective, one of the interviewees explained that many young adults come from a protected household, and they have ‘no sense of other peoples’ lives’. The excerpt below illustrates his point of view.

The younger generation wants to be a millionaire by the age of 30 with the least amount of work. They are very much materialistic. They may want to help but are not focusing on the real intentions because they are not brought up in reality. They just have good intentions without truly understanding its meaning. For example, how do you know you can help someone with breast cancer? You want to help but how can you, especially if it comes from a man? You have good intentions but where is the sense of reality?

- *Participant No. 5*

Another activist who is the chairman of many foundations lamented on the issue of decaying moral values in society.

Personal well-being in terms of ethics, in terms of moral, in terms of integrity, in terms of noble values... these universal values have been lagging behind now, and, as a result, there has been a gap, between economics, ICT, technology and human development and moral development.

- *Participant No. 4*

Others have highlighted unacceptable condoning behaviour, such as a lack of courtesy, greed and materialistic attitudes. The following are a few of the excerpts which depicts the lack of moral values among people:

Another issue is the civic awareness in Malaysia. What I do know about Malaysian manners is that it is dropping. My personal experience reinforces my thoughts on that, people’s attitude is getting worse like at the shopping mall, after putting everything in the car, they leave the trolley around not thinking of how it will affect others...They see volunteerism as something that’s not rewarding because they do it for free. For them, they would rather do other things that will result in getting paid. Even if they do volunteerism they expect

something in return, like, they will ask ‘Do we get a free T-shirt? Do we get RM50 (about USD17) a day?’. They will always expect something in return.
- *Participant No. 6*

A lot of Malaysians themselves are finding shortcuts to material wealth. Some of them want a shortcut to an easy life; some of them cannot cope with surviving on a day-to-day basis and become desperate because of their materialistic ways.
- *Participant No. 1*

I think, partly it is a culture of greed sometimes..[that has led to corruption].
- *Participant No. 3*

I feel that many Malaysians are taking things for granted, they never learn. These victims [from the scratch and win scams] are greedy. They want quick cash without hard work and so they fall into the scam traps very easily.
-*Participant No. 13*

People have no integrity these days. Look at our Transparency Index, we are way behind other countries...bribery has become a social malaise. Youngsters have loose values and lack moral values... they don't value themselves, they are becoming more rude and demanding, unwilling to spare time, effort and money to help others in need, to attend charity functions or even family gatherings.
- *Participant No. 10*

We need to work on increasing civic awareness and manners. There seems to be segregation or ethnicity in our society these days and a lack of manners among people.
- *Participant No. 12*

5.3.3 Quality of education

Activists in their thirties and above emanated a sense of disappointment as a result of the decreasing quality of education. Some stressed that the education system has caused a gap in the integration between races. Moreover, a few activists touched on the psychosocial ramifications of stigma in the context of the local education policies and the manner in which education infiltrates and shapes children's sense of race with another.

Some of the following excerpts are narrations of the psychosocial effects where the social fabric is under threat due to the education system.

A child's thought process is through the education system, if you have such diverse dividing ways of teaching, not similar, how can they ever come together as adults? The standard of education in Malaysia has fallen; we are not keeping up with the rest of the world. *- Participant No. 5*

I think what potentially needs to be addressed is our education system. The races are obviously not mixing as much as before and that's because of the education system. Instead of uniting, it seems to be dividing the races. *- Participant No. 3*

Our education system is failing us...you can see it in from our racial relations. We are not mixing as much as before. Although we are tolerant of each other's culture and way of life, Malaysia has yet to reach a status of true acceptance as a united nation. Children need to be taught how to work together in spite our differences in culture and ethnicity. Respect needs to be emphasized. *- Participant No. 10*

If you look at our national education system, we never seem to get ahead. If you look at what is going on in the country, when you talk to the parents, they don't like to send their children to the national schools, they would prefer to send their children to the Chinese schools, number 1. Number 2, they would prefer to send their children to international schools if they are financially well off. International schools are in big demand today. It's a big business today. I think the reason is because they don't have faith in our national education system today, especially with the kind of students we are producing today. Even those who attend universities when they graduate, they can't even speak proper English and some of these are the ones who join the government service and when they go to foreign places, when they talk to their counterparts, all kinds of grammatical errors will come and this will reflect how they were taught. I think with the Bahasa Melayu [the national language], we are not going very far. I would say I would like to see us revert back to the systems of my days, the English school. During my days, they had the Anglo-Chinese schools, like St Michaels. I am a product of the mission school like St Michaels, I take my hat off to the brothers, who are so dedicated, who come from Ireland and just park themselves here and dedicate their lives to education. So I would say we are having '*sistem pendidikan rojak*' [messed up system], because the government doesn't seem to change because of their pride. They have set up so many committees to evaluate. But what is the real test? I have read that the main gist of the educational national policy is to unite, to unify the people. But today's education policy is not uniting the people. The problem of today's polarization of the ratio system is so serious today, even in the national schools. The Malay students will be with the Malay students, the Chinese will be with the Chinese, I mean, where are we going from here? This is a social issue.

- Participant No. 4

I think a lot of families have concerns about the quality of our education. The issue is that there's this sense that the standard of education in Malaysia has fallen, we are not keeping up with the competition with the rest of the world, the quality of public schools, there is a lack of trust, and I think that's a hot social issue.

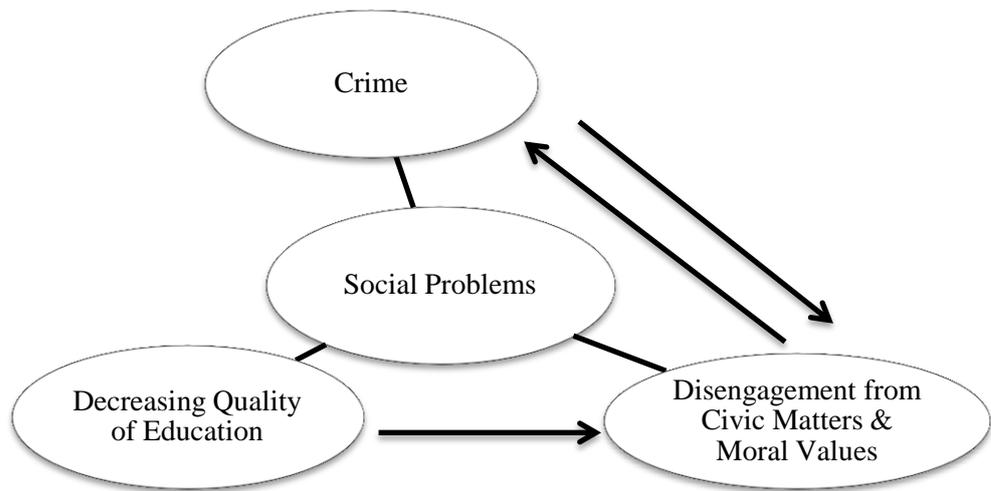
- Participant No. 3

5.4 Summary of social problems

The corroboration of the interview data was achieved among the thirteen participants and the findings revealed three major social problems which were crime, followed by disengagement from civic matters and moral values, and quality of issues. The results of the interview was also presented to one IS academician with a qualitative background for verification. The PhD IS academician concluded that there were three major prevalent social problems and their sub themes were aligned to the findings from the literature and interviews. The level of data analysis and interpretation were adequate. A summary of the findings on social problems are presented in Table 5.2. This table highlights the most frequently raised issue, which was crime, followed by disengagement from civic matters and moral values, and quality of issues. A number of sampled excerpts were used to narrate each of the themes as previously demonstrated.

Table 5.2 Qualitative content analysis for social problems

Participant No.	1	2	3	4	5	6	7	8	9	10	11	12	13	Total
Themes														
Crime														
• Property & violent crime	√	√	√	√	√	√	√	√	√	√	√	√	√	13
• Corruption	√	√	√	√	√		√				√	√		8
• Drugs	√	√	√	√							√		√	6
• Scams	√						√						√	3
• Illegal immigrants	√			√						√	√		√	5
• Notorious driving		√					√	√						3
• Baby dumping & kidnapping		√						√	√					3
Disengagement from civic matters and moral values	√	√	√		√	√	√	√		√		√	√	10
Quality of education	√		√	√	√		√			√	√			7



Note:  Arrow depicts the influence of one problem to another

Figure 5.1 Prevalent social problems identified

Figure 5.1 summarizes the prevalent social problems indicated in the interviews. It depicts the interlocks of social problems, such that each one can be seen as a symptom of another or even vice-versa.

5.5 Interview results: content analysis on online civic engagement efforts

The section study describes the notion of civic engagement in the context of activists' verbal explanation via interviews. As shown in Table 5.3 and discussed in the preceding sections, the activists conducted nine different types of civic engagement activities using social media, in particular, Facebook. The summary of frequencies of the coded descriptions is presented in Table 5.4.

Table 5.3 Types of activity conducted using Facebook

Activities	Mode	Example Excerpts from Interviews
<ul style="list-style-type: none"> • Seeking uncensored information • Checking on others • Following links 	<p>Collection of Information Browsing the Web for information.</p>	Check on people’s status besides posting events. I do read the shared news.
<ul style="list-style-type: none"> • Posting civic messages/events • Appealing for donations • Calling for volunteers 	<p>Publication of Information Constructing websites and posting materials on them.</p>	I do teach some things related to social matters for awareness, which I share on Facebook.
<ul style="list-style-type: none"> • Holding discussions on social issues 	<p>Dialogue Using the Internet to discuss issues.</p>	Our youth share some wisdom on how they can help combat crime and they post such ideas and opinions on Facebook. They talk about it a lot on Facebook, they want to do something.
<ul style="list-style-type: none"> • Scheduling 	<p>Coordinating of action Form coalitions, and coordinate activities.</p>	I blast the clean up the zoo event and Explore to Clean programme on Facebook with my contacts. I set the time, what time you need to arrive.
<ul style="list-style-type: none"> • Lobbying and advocating 	<p>Lobbying decision makers Calls for responses from the public to pressure parties in charge to make changes.</p>	I post my opinions, and spread the word around to pressure for change. I also sign online petitions on Facebook.

5.5.1 Collection of information

Seeking information – Many activists tend to read highlights from events, or any other news, facts, reports or information to the community online to the point that social media on the Internet has become the local daily. Facebook appears to be a good search engine optimization for news consumption as seen in the following excerpts:

Social media have been proven to be a very powerful instrument. Less and less people are reading the newspaper. In fact, some of my friends, when I ask them if they have read my articles in the newspapers, and they say: no, we just go on the Internet and Facebook to find out information. *- Participant No. 4*

When I need to look for something, for example a topic on changing education policies or to find a contact that can help me out with a project we are doing, I just Twitter it to ask others or find it on Facebook. *- Participant No. 1*

I search for groups or contacts who might be interested to participate in the campaigns I am involved with and read their profiles. *- Participant No. 8*

The main difference between this mode and the others is that in this mode, the motive of the activists is to look for information and it does not chiefly serve to promote an event, mobilize supporters to take some type of action, foster dialogue, or build a community. It solely means that activists seek to be informed. Some activists offered illustrations on the value of Facebook-specific information supplanted in the form of social issues, which are important but have been censored on the traditional main stream media. As one youth described in the interview,

To be very honest, our newspapers are filtered by the government, so it's not very easy to get the real news on public television or newspapers but through Facebook, it's much more open.
- *Participant No. 7*

Checking on others – Checking other people's status or timeline posts on Facebook are a very common activity among the activists as depicted in the following interview

excerpts:

I check on people's status besides posting events. I do read the shared news...especially if it involves teenage pregnancy and baby dumping.
- *Participant No. 8*

Sometimes when I need to call someone for work and to promote our project against crime, and I don't really know these people but because they are on Facebook, it's easy to get their email address or sometimes they even have their mobile phone numbers... all I did was just search their name and it will show most of the time. *Participant No. 1*

I like to 'like' my friends' status...see what they are doing, where did they go and who are they with now or what types of [social] project they are involved in now.
- *Participant No.7*

I know that social media, especially Twitter, people try to connect, check on what other people are doing and make new friends every day. Different groups have come together using this thing called Tweetups and they meet each other.... I, myself have made a lot of new friends using Twitter, face-to-face, you know, because we share the same interest. So we are constantly checking on each other's' posts.
- *Participant No. 1*

Information available online can also help connect a member or an organizations' constituents to the relevant resources in the community. At the same time, informational

sources on social media sites serve as an essential base upon which more complex functions (e.g. dialogue and coordination of activities) can be built. Sometimes, this information also leads other members online to extend their help in community efforts as narrated in the excerpt below:

I read postings of others, see what they are up to, just to keep myself up to date on my circle of friends, or those that I have long lost contact with... Sometimes when I come across someone who is organizing some event, such as one case a while back, there was a get together to raise money for a Chinese school in my home town, which I was keen on and I went to show support.- *Participant No.11*

Following links – It was found that many of the activists follow shared links, particularly on issues that they advocate. The sampled excerpts are as follows:

I check on people's status. I do read the shared news...especially if it involves teenage pregnancy and baby dumping or any issues on women.
- *Participant No. 8*

There are a lot of links on Facebook. Most of them are posted by friends. Like the save the water dam project and getting volunteers. Like when I have time at hand, I like to check out these links, sometimes they are videos, especially on the Bersih (for the Fair and Clean Coalition protest) ones. I was really upset when there is evidence of injustice and nothing is being done...evidence like the videos posted...it's so obvious.
- *Participant No. 10*

I look at the links posted...some of these issues are about the attitudes or behaviour or others which are rather intriguing and bizarre...For example, someone posted on how rude service was at a restaurant, or a video shared on a road bully.
Participant No. 7

I read the shared news, the ones posted by other friends...examples include for justice, politics, especially cases on corruption.
- *Participant No. 12*

I follow some of the links on my [Facebook wall], on women issues or mother issues...I tend to focus on that a lot...yes, some of these issues are those warnings posted by friends on child kidnapping, safety for children.
- *Participant No. 9*

5.5.2 Publication of information

Appealing for donations – Messages in this category either directly ask for a donation or ask followers to support companies that are donating a percentage of their sales. Others comment that social media have been effective when reaching out to the public for contributions. Examples include the following:

The latest fund raising is on Baby Takhir (baby with heart problem). I did the poster on Facebook and shared the poster 130 times and right now it has been shared like 1,000 times. An amount of about RM25,000 (about USD8333) has been collected and the baby is now about 2 weeks old. Everybody is still sharing.

- *Participant No. 9*

Two years now, I remember the last time we had a Social Media Week. We raised funds for the Yaysasan Chow Kit [shelter home for children]... Yes. I think we managed to raise a few thousand... We didn't give cash, we gave milk. So, that's an example of social media activism.

- *Participant No. 1*

I posted the famine campaign on my Facebook and people to respond... most of them were enquiries... then some would eventually turn up for the event and make their contribution to support the event.

- *Participant No. 7*

I post the World Vision event on my [Facebook] wall, and encourage people to come and contribute and support.

- *Participant No. 8*

Calling for volunteers – Some of the non-governmental organizations (NGO) that assist the underprivileged, use Facebook, particularly to appeal for donations and recruit volunteers. On this website, visitors can sign up to be volunteers, sign petitions, send correspondence to their staff, as well as access links to other charitable organizations and alliances that share the same objective. In the interview, one of the NGO staff shared the following:

We [the NGO] have events almost every month, so what we do is to make sure that for all of our programmes; we have as many volunteers as possible. So we use our website mostly for that to get as many volunteers as possible for that... We do get more volunteers on Facebook and Twitter. In the last one year, it was easier to get volunteers. Social media helps. And quite a number turn up to the event through Facebook's promotion.

- *Participant No. 9*

When we [the NGO] needed volunteers help with the kids, we wanted to bring some orphans to a science exhibition, I posted it up on our Facebook page and the requirements like, you have to pay for them and your own ticket, the venue and time. People do volunteer and the message spreads fast. - *Participant No. 6*

Individual activists also use social media in their community work. For instance, I just tag and blast the project on my Facebook when I need volunteers to come and participate in combating crime or even to clean up the beach.

- *Participant No. 2*

Posting civic messages or events – Another aspect of publishing content online is to generate awareness by activists among the people on the Internet. The activist who holds a high position at the Elect of ASEAN Regional Union of Psychological Societies explained:

For crime, people warn each other, when crime happens, when people almost got kidnapped or even harmed, they [the victims] send Twitters, posts on Facebook, mass emails and within two days, everybody knows the modus operandi of the snatch theft, or a kidnapper. I think this distribution of information makes the public more cautious, more aware of what to avoid, places to avoid, or places with crime. So I think this is an example of citizens helping one another.

- *Participant No. 3*

The many numbers of sharing also demonstrates the intensiveness of activism. Some of the activists stated:

More and more people are sharing stories. One of my friends who's girlfriend was almost kidnapped at a shopping centre, I think something like 17,000 are sharing the story.

- *Participant No. 5*

I was surprised at how fast our video link against corruption went ... I think in just three days...there were around 120 likes and shared like about 200 times...and some of them are other people on Facebook whom I do not know... some of them even asked me more questions on it.

- *Participant No. 10*

Promotional materials on social issues exclusively took the form of first-person testimonials by sharing personal opinion to propose claims of efficacy and mechanisms of action, for example:

I wanted to share to educate my friends and other people about poverty. Like the 30-Hour Famine, I post on its different stages to promote it. I just promote it like

what's it about, why are we doing it, why you should join us, what's expected, what is being contributed until the last state of the promotion, like have you joined us yet, the number of people have joined us. I post it on the timeline with links.

- *Participant No. 8*

I want people to know about the importance of moral values... of being responsible and to set a good example. So I post messages and articles on the philosophy or share links from YouTube that are inspirational. There's just too much negativity among people these days.

- *Participant No. 7*

My articles on civic awareness, on the problem of drugs, what we need to do to help our community... improving our moral values... are posted on the sites [organizational sites that uses social media].

- *Participant No. 4*

I'm also the [left blank on purpose to protect interviewee confidentiality] for the International Social Media Chambers, for all my other stuff, I get a lot of people, whenever I organize stuff and post it on Twitter, Facebook, my blog, they [participants] come willingly show support.

- *Participant No. 1*

5.5.3 Dialogue

Holding discussions on social issues – The current literature on social media use by non-profit organizations shows the gap between sending out publication information and creating dialogue (see for example Waters et al., 2009). Besides using social media is for posting messages and disseminating information, activists also use social media to interact, share, and converse with online members or potential members in a way that ultimately facilitates the creation of an online community with its followers.

There are three aspects to this mode: discussions and community-building. First, there are online postings that spark direct interactive conversations between the activists and their readers, which are similar to following the notion of 'dialogue' in the organisational website literature (see for example Kent et al., 2003). Second, the aim of some postings is to say something that strengthens ties to the online community by involving online conversations that facilitate a diversity of views and fosters relationships. Third, some of these dialogue type of postings are on sharing of

experiences and opinions on social issues. This relates to the social capital and network building functions that Nah (2009) suggests is possible in organizational websites, similar to the case of Facebook. From the perspective of activists in a multi-racial and religious country, Facebook can be seen as a platform to enhance racial integration, as participants number 3 and number 5 summed up:

Social media like Facebook can provide platforms and opportunities for different races today to mix more with each other.
- *Participant No. 3*

Coming from a multi ethnic country, such as ours, I think many, many, many of us do not understand each other's perspective so I think social media have the ability to allow us to voice out and share our individual perspectives and to explain our opinions to others. This allows us to understand each other to a better or greater degree. In some way, it [social media] unites us.
- *Participant No. 5*

Other examples of dialogue taking place on social media include the following excerpts:

It's nice to talk to other people on Facebook. We get a chance to exchange ideas, especially when we have a group involved. For example, our project to raise awareness on anger management...what we did was we met online every Wednesday for about an hour for a few weeks to try to get some ideas on how to have the campaign. Makes you feel like you belong to a mini community on Facebook.
- *Participant No. 11*

It has to be the whole package when you twit. I tweet about social issues, politics, soccer, football, I support Liverpool, so I talk about football. I twit about the Olympics. I twit about traffic, about food... and people will twit back what they think of your tweets. Sometimes it gets to the level like a conversation is going on.
- *Participant No. 1*

5.5.4 Coordination of action

Scheduling – When discussing their experiences, activists explained that arrangements for events were coordinated on Facebook on their Timeline and through their Facebook inbox messaging. The terms frequently used were ‘blast’ and ‘tag’, which refers to putting up event details on their timeline. According to Facebook’s webpage (2012), when you tag someone, that person will be notified because you have to create a link to their timeline.

Four encounters described their coordinating efforts as follows:

I blast it on Facebook with my contact. I set the time, what time you need to arrive. Like when we did a programme called E to C, like “Explore to Clean...I just blast it on Facebook. We had a climbing expedition while cleaning up the place, picking up rubbish. *- Participant No. 2*

People can meet to discuss ideas, whether it is for a community project or for just about anything. *- Participant No. 3*

I tag my friends on the pictures or photos of the charity event so that it gets viewed instantly at their page...it’s much easier and faster than to write an email or make a phone call, which can be pretty expensive. *- Participant No. 8*

Most of them [volunteers] actually come from the Facebook website, we just tag the event, and they come. Because we have this club called Penyayang at the local universities, even at UM, so we just tag, and they come. There are many students that are on Facebook from these universities, so we just need to tag. *- Participant No. 9*

5.5.5 Lobbying decision makers

Lobbying and advocating – Activists are using social media for lobbying decision makers by asking or encouraging individuals to email and do other things to demonstrate their concerns to influence change by institutions of authority or those who are in charge. Online petitions are used to protest against the actions of more powerful groups, while online reporting of evidences or stories can garner the attention of mainstream media and the public. This mode entails messages that aim to encourage followers to ‘do something’ for the betterment of the community. This includes signing petitions, posting images that reflect a call for change, emailing complaints to authorities, uploading videos and engaging in the actual advocacy campaigns at a set time and venue. Examples of the excerpts that depicted this mode include:

I changed my profile picture to support the cause. Like the *Bersih* logo (the coalition logo for a fair and clean election), I put it up for the entire month. Or like Say No to Corruption sign, I used to put it up. *- Participant No. 10*

I support in keeping the environment like Mother Nature, I sign online petitions when I get to know about it as I read it on Facebook. Many times, my friends

will share links to these kind of petition sites, so I just click on it and click the sign button to show my support. Like the Bukit Kiara case, where they wanted to destroy the park to make way for buildings... we got to know about it from Facebook and we went there to support the event to stop the park from being closed down.
- Participant No. 11

5.6 Summary of online civic engagement modes

In total, there were 48 excerpts that were identified, which could be categorized according to the five modes of online civic engagement modes by Denning (2000). They are: collection of information, publication of information, dialogue, coordination of action and lobbying decision makers. Some of the modes had sub-themes, which were identified first prior to categorizing them into the major five modes. Table 5.4 presents the frequency of these themes based on the excerpts from the interviews with the 13 activists.

Table 5.4 Qualitative content analysis for online civic engagement behaviour modes

Participant No.	1	2	3	4	5	6	7	8	9	10	11	12	13	Total
Themes:														
Collection of information														
• Seeking information	√			√			√	√						4
• Checking on others	√	√					√	√			√			5
• Following links	√	√				√	√	√	√	√	√	√		9
Publication of information														
• Posting civic messages/events	√		√	√	√		√	√		√			√	8
• Appealing for donations	√					√	√	√						4
• Calling for volunteers	√	√				√			√					4
Dialogue														
	√				√	√					√			4
Coordinating actions														
		√	√				√	√	√					5
Lobbying decision makers														
						√	√	√		√	√			5

5.7 Validity

The validity of the interview results on the categories of social issues and the modes of online civic engagement behaviour were achieved in the corroboration of the interview results with other sources of data, particularly with prior literature (Chapters 1 and 2) and web analysis (Chapter 6). The five modes representing the content domain of online civic engagement behaviour based on literature, interviews and web analysis were also presented to an IS PhD academician with a qualitative background to verify the modes of online civic engagement. The academician concluded that the five modes and their sub themes were aligned to the findings from the literature, interviews and web analysis.

5.8 Reliability results: Inter-reliability and intra-reliability coding

The reliability of the coding process was assessed by inter-coder reliability and intra-coder reliability checks. To assess the reliability of the coding, an independent rater with a qualitative background check-coded selected portions of the interview transcripts that were originally coded by the researcher (Miles & Huberman, 1994). Overall, inter-rater reliability resulted in a perfect agreement of 81 per cent or an index of 0.8 (47 of 58 items) of the quotes check-coded for the quotes for social problems. The inter-rater reliability rater results for online civic engagement modes scored an index of 0.85 or 85 per cent (41 of 48 were matched). Intra-coder reliability is the level of agreement when the same coder reanalyses the same text after some time has elapsed (Krippendorff, 2012). Intra-coder reliability was applied by the researcher when she engaged in a second round of coding one month after the initial round of coding as an additional reliability check. The intra-rater reliability resulted in a perfect agreement on 93 per cent (54 of 58 items) of the quotes check-coded for social problems and 92 per cent (44 of 48 items) for the online civic engagement behaviour modes. Examples of the reliability

matrices used to determine the inter-reliability and intra-reliability coding are in Appendices 6 and 7.

5.9 Interview bias

In order to minimise interviewer bias, the researcher ensured that she: (1) ‘acknowledged the theoretical foundations of the study’ (Lillis, 2006, p. 471); (2) ‘acknowledged the need for objectivity and distance from these preconceptions in order to observe and accept challenges to them’ (Lillis, 2006, p. 471); and (3) studied interviewing techniques to ensure that she understood the validity and reliability concerns in data collection. Addressing interviewer bias was evident by the researcher (1) engaging a second coder with qualitative background; (2) validating the results by an IS PhD academician with qualitative background; and (3) conducting validity and reliability checks.

5.10 Chapter summary

The major outcome of Phase 2 was the identification of the prevalent social problems and the modes of online civic engagement. The interviews revealed that the three prevalent social problems are crime, disengagement from civic matters and moral values and the quality of education. The findings from Phase 1 support Denning’s (2000) five modes of Internet activism: collection of information; publication of information; dialogue; coordination of action and lobbying decision makers, even though there were some overlapping of the usage in certain modes, which concurred with past literature, as discussed in Chapter 2. The findings provide illustrations of how advocates, such as activists, are able to utilize Facebook (the tool) to inform its followers (people) on issues and planned actions (information).

Throughout this chapter, examples and possibilities of a growing phenomenon of activists who are passionate to inform, educate and organise themselves online for civic engagement activities using the social media have been presented. The findings from this chapter also showed a growing activism of interactive online civic communications based around social media, in particular, Facebook aimed at facilitating civic engagement by providing access to members for searching information, and tools to mobilize and organize. The findings also illustrate the seriousness of the activists in using Facebook in advocating their causes and addressing social problems.

CHAPTER 6: FINDINGS FROM WEB ANALYSIS

6.1 Introduction

This chapter reveals the findings of the observation and content analysis of the social media sites of activists and/or their organisations used to address the social issues. Phase 2 includes secondary data collected from the interviewees' organisational websites, their blogs and Facebook accounts for evidence. The multiple sources ensured that facts stated by one cluster could be verified by the other. In this case, the code descriptions developed in Phase 1 could be verified by observing the data posted on the activists' blogs, their organisation's websites and their Facebook timelines. The findings from Phase 1 concerning the civic engagement approach of the activists using social media consist of five modes: collection of information, publication of information, dialogue, coordination of action and lobbying decision makers. These modes are attuned to Denning's (2000) definition of Internet activism, which are present in Phase 2. Some of the images shown in this Chapter have been intentionally darkened or blocked out to ensure anonymity.

6.2 Findings on the online civic engagement behaviour modes

6.2.1 Collection of information

Seeking information is easy to do on Facebook. The search engine tool on Facebook (see Figure 6.1) enables activists to look for social issues and contacts of interest by doing a simple search. All images were captured from Facebook unless otherwise stated.



Figure 6.1 Facebook search engine

As noted in Phase 1, participant no. 8 who is an advocate in curbing baby dumping reads shared links and recommends them to her audience to gain support for her cause and to educate the public. The following captures some of the images available on her Facebook timeline that validates her statement made.



Figure 6.2 Postings that were read by the interviewee

6.2.2 Publication of information

Facebook allows users to upload a virtually limitless amount of data including pictures and videos. A Facebook user can manage all their photos and share them with the public or their 'friends' if they choose to do so. As of 31 March 2012, on average, there were over 300 million pictures uploaded to Facebook every day (Delaney, 2013). In April 2012, Facebook bought the software company Instagram whose software application

allows its users to upload images to the Internet (Rusli, 2012). On average, a new user joins Instagram every second, where users post an average of 5 million photographs a day (Delaney, 2013). This truly demonstrates how Facebook users enjoy sharing their experiences captured through images and storing their digital media as memories on their Facebook profiles.

In relation to civic engagement efforts, activists post their photos of their community work as a way to inform others of such events and to show others the satisfaction one receives when giving back to the community. Some postings involve the promotional and mobilization uses of social media messages where, implicitly at least, Facebook users are seen as a resource that can be mobilized to help the organisation fulfil its mission. Some postings help to increase awareness of social problems (See Figure 6.4).



Figure 6.3 Examples of picture sharing of civic work



Figure 6.4 Postings to increase civic awareness

Educating the public with civic articles – Informing and educating the public to create awareness is crucial. Participant no. 4 who has over 30 years of experience as a social activist and serving the nation, advocates this through the main stream media, new media and the organisation websites where he sits as a trustee, such as Yayasan 1Malaysia, a not-for-profit foundation with the aim of promoting unity and peace. His enthusiasm in civic efforts can be seen weekly, if not, monthly articles are posted on the website to spread knowledge and appeal to the policy makers for changes. Figure 6.5 and Figure 6.6 are screen shots taken from the organisation’s Web 2.0 site that depicts participant no. 4’s and other public figures’ article postings online.

Articles by Board Of Trustees	
Date Posted	Articles
18.6.2012	Raising Retirement Age Is Beneficial
5.6.2012	Local Authorities must meet people's aspirations

Figure 6.5 Online publications by public figures who are activists

Other articles that have appeared online encourage the public to integrate moral values and civic attitudes in our daily lives. This is to address the unbecoming behaviour of our

citizens, of being disengaged with civic values and moral practices. Public figures are putting up links on such articles as a reminder to be courteous, honest and show integrity; values which have decayed over time among citizens (see Figure 6.6).

1	Practise Noble Values	25.1.2012
2	Let's Lead By Example	20.1.2012
3	We Can All Practise It In Our Daily Lives	19.1.2012

Figure 6.6 Online publication on instilling noble's values

Participant No. 1, a local columnist conveyed his thoughts about education and, racial issues in the concept of unity in the extract below and has similar write ups on social problems on his blog (see Figure 6.7). The message expresses concern for the need to reform the school system, so that that racial unity is integrated and instilled among the young. This is an example of social activism for increasing awareness of a social issue.

Revisiting the Malaysian school curriculum

THURSDAY, SEPTEMBER 06, 2012 - 16:03

RECENTLY I had the good fortune of being part of a focus group on "national unity", formed by a local think tank which wanted to present a proposal to the Education Ministry.

The proposal was to be included as part of the ministry's blueprint for education reform.

The focus was on what was needed to be done to foster unity through the identification of a Malaysian identity unique to all Malaysians through the school system.

The questions posed were not new, just go to any seminar, forum, workshop on unity in Malaysia and the same questions would invariably surface if not by a panelist then from someone on the floor.

Why are we still having problems defining what is it that makes us Malaysians? Why are we not united beyond the surface level? Why do we still have race-based organisations? Why aren't all Malaysians treated equally? And the list goes on.

Figure 6.7 Article on improving unity through education

Some activists even tweet on the lack of courtesy among citizens and the lack of confidence in institutions (see Figure 6.8 and Figure 6.9). Examples are taken from the Twitter sites of the participants.



Figure 6.8 A frustrated tweet



Figure 6.9 A tweet on the lack of confidence in the government

In Phase 1, participant no. 3 voiced his opinions on social issues in The Malaysian Insider – online daily news that covers the issues of the day, politics, business, lifestyle, sports and entertainment. He shared his thoughts on the role of the government and police in ensuring safety and fairness in the interview,

I think it's largely the responsibility of the government through the police force to provide this kind of safety and I don't think they are doing their job.

Observation on his Facebook demonstrated this concern for the nation's well-being with his shared video link on Facebook to inform, to create awareness and provoke thoughts among the online readers. These video sharing links and message on justice (Figure 6.10) provide an insight into how activists are actually using different online tools, such as those of Facebook, to engage, to encourage and have the courage to make positive changes in their communities. Participant no. 3 shared a link to a content on YouTube on the 'Evidence that Police Attach was Unwarranted' during a particular protest.

Examples of publication of information by participant no. 3 are as follows:

Evidence that Police Attack was Unwarranted
Video Evidence that Police Attack was Unwarranted

We are not afraid of bullies

Having suffered a humiliating and embarrassing rebuke from the majority of the rakyat in these last GE, the bullies have now reacted like most bullies do when they are insecure: they have started making threats.

When people speak out against their attempts to cause a racial divide; they threaten to heap bad publicity on their organizations through their press.

When people exercise their democratic right to support the opposition; they threaten to sideline their needs, to stop helping those communities, to stop funding to those communities, to deny them a voice in government.

When people express their frustration about perceived unfairness in the way election are conducted; they put them in jail, they are treated like terrorists.

When people provide financial support for opposition parties; they threaten to boycott these companies.

Bullies threaten to create fear, because fear is control.

Let us make clear to these bullies that we are not afraid. We will stand up to them and not take a backward step.

Can they put 51% of the country in jail? Let them try.

Our power comes from our collective resolve. Our power comes from our numbers.
If together, we stand up to bullies, we will defeat them.

So my friends:
In the face of their aggression and threats, let us continue to speak out for truth, without fear, let us show public support of those who have been victimized for their convictions.

[Like](#) · [Comment](#) · [Share](#) · about a minute ago · 

Figure 6.10 Shared video links and a posting for justice

Call for volunteers and appeal for donations – A common form of publication of information is the use of social media for recurring volunteers and appealing for donations. Examples include civic postings by not-for-profit foundations, for volunteers regularly on Facebook for maintaining the environment and to raise funds while promoting family togetherness via a charity walk. These are shown in Figure 6.11.



Figure 6.11 Examples of image postings with links to charity events and volunteer work

6.2.3 Dialogue

Dialogues allow for discussions and clarification for civic events online, express opinions and vent frustrations on unjust acts that affect the community. The dialogue of participant no. 11 in Figure 6.12 suggests an upset citizen person explaining to another why he was upset and that it was necessary to support the Coalition for Clean and Fair Elections rally to fight against corruption in the country.



Figure 6.12 Debate on the right to fight against corruption and for a fair election

Through the web analysis, the observations led to findings of the implementation of clarification dialogues, a mechanism for ensuring that question answering takes place in promoting a cause among activists. Figure 6.13 is an example of this is type of dialogue by participant no. 7, where a dialogue about the 30-hour famine camp took place on Facebook.



Figure 6.13 An enquiry conversation on a charity event

On crime and the lacking of confidence in the police – Some activists narrated their experiences through sharing incidents, their stories on crime (see Figure 6.14 and Figure 6.15) and the lacking of confidence on the police. The dialogue in Figure 6.14 instils a sense of police-public disengagement, while another in Figure 6.16 demonstrates the lack of confidence in the government in managing finances.



Figure 6.14 Participant no. 5 having a dialogic chat on being a victim of crime



Figure 6.15 Participant no. 10 sharing with others on a crime event

cutting our subsidies to create FB pages?! Does our Tourism Ministry know by saving RM1,800,000.00, the Government can afford to pay RM3,000.00 as bonuses to 600 hundred teachers? 10 schools (assuming 60 teachers in a school) would have benefited from this simple exercise. Participant No.11

MI
Tourism Ministry: RM1.8 million spent on Facebook pages
www.themalaysianinsider.com
Tourism Ministry: RM1.8 million spent on Facebook pages

Like · Comment · Share 👍 2 💬 7

👍 2 people like this.

kindergarten also can create own FB pages.
1.8 million.... 1 Malaysia Saja Boleh... Knn..
June 14, 2011 at 7:13pm · Like

It is a silly idea. It is time for a change, put aside race,gender n sexual orientation..choose a person on what he/she can do. N i do hope the new upcoming generation can see that race-based name calling is also silly. Thr r tonnes of malays who r also still below the poverty line,not educated. A certain group is making malays look bad,but it doesnt equate all malays as 'malay-sial'.
June 14, 2011 at 8:28pm · Like · 🔄 2

do wat u need to do this coming ge13..
June 14, 2011 at 8:29pm · Like

p/s -_iii this wat taxpayers say 'malaysial'....It is not Racial discrimination;Our attention is the national and avarice maggots.Government should know how to serve the country, benefits for the people. Rather than increase the burden of our people.
June 14, 2011 at 9:55pm · Like

Figure 6.16 Lacking confidence in the government

In an attempt to minimize the problem of people being disengaged with social and civic values, youth activists try to raise the importance of being civilized with courteous manners by discussing the importance of the role of the media to set an example to the public. See for example in Figure 6.17.



Figure 6.17 A dialogue which gives support to the activists on the importance of media setting a good example on manners

6.2.4 Coordination of action

Civic engagement efforts online have been seen to be increasing on various social issues (see section 2.4). From Phase 1, Facebook serves as a platform to unite people of similar interests in addressing social issues. It allows users to plan and schedule community events through invitations and calls for assistance. In this aspect, social media, in particular Facebook serves as a platform for coordination of civic actions. This is evident in the web analysis. Examples of postings involving schedules and requirements that need to be planned for the voluntary work are depicted in Figure 6.18

Next Lariche Community workshop -Effective Models of
Fundraising for NGOs
Date: 23 & 24 May 2012
Venue to be announced

Participant No.5

An invitation to all who'd like to volunteer

Program : Public service
Aim : Zoo Clean Up
Venue : Zoo Negara
Date : 10/11/2012 (Saturday)
Time to meet: 7.30am - 1.00pm
Place to meet : The ticketing counter at Zoo Negara
*Wear track suits
*Please contact : Suhail (019-2670609) for further information
*Free entrance
*Food and Transportation not provided.

Participant No.2

Participant No. 6

April 20

we need 20 volunteers to accompany 40 kids to petrosains! you will take care of the kids from their school to petrosains and back to the school. all expenses including train tickets, petrosains entrance fee and lunch for the kids and yourself are covered!

leave your email here or message it directly to me and i will be contacting you for the details. we will only accept a maximum of 40 volunteers but the second 20 volunteers will have to pay for their own train tickets(rm2x2), petrosains entrance(rm12) and lunch.

interested to sponsor the second 20 volunteers? let me know and i will provide more info. thanks! 😊

updates: we already have 40 volunteers and we will put you in the waiting list should anyone pull out if you are still interested.

MyCorps

Figure 6.18 Postings of planning activities on activists' Facebook sites

6.2.5 Lobbying decision makers

More concrete efforts at community building involved explicit requests of activism. Many of the activists employed Facebook to urge members to sign petitions online, write letters to specific companies or authorities to change their decisions. At times this was accomplished through specific Facebook groups formed in partnership with other

organisations, such as environmentalist representatives for the purpose of conserving nature. For example: A shared link on an activist' Facebook timeline (participant no. 11), which urges members to sign a petition to stop a hydroelectric dam project that involves clearing a large part of the Malaysian rainforest.



Figure 6.19 An effort to save the environment on

Another activist even changed his profile design in his civic efforts to get the public to stop the 114A Act. This act, according to some blogs, enables ‘law enforcement officials to swiftly hold a person accountable for publishing seditious, defamatory, or libellous content online’ (see for example Goh, 2012; Malaysian Wireless, 2012), however it presumes one is guilty rather than innocent. By having a Facebook profile picture as a civic message, there would be a higher chance that the image would be viewed many more times, especially if a dialogue or conversational type of messaging takes place because a profile image comes with any posting done on Facebook.



Figure 6.20 Civic actions to pressure for changes – changing profiles to civic images



Figure 6.21 A posting on getting people to vote

This shows that participation in social issues is occurring, and that meaning and understanding about views on political and non-political views is being created in this space. Facebook sites enable the creation of a collective consensus that may prompt institutions or the relevant parties to alter policies or at least prepare policies accordingly.

6.3 Validation

The validity of the modes of online civic engagement behaviour in addressing social issues was achieved in the corroboration of the web analysis results with other sources of data, particularly with prior literature and the interview results (Chapter 5). The validation procedure and results are similar to that of section 5.7 in Chapter 5.

6.4 Reliability results: Inter-reliability and intra-reliability coding

The researcher and a second coder independently coded the web analysis data (screen captures) based on the modes of online civic engagement behaviour. The reliability of the coding process was assessed by inter-coder reliability and intra-coder reliability checks. To assess the reliability of the coding, an independent rater check-coded (Miles & Huberman, 1994) the screen captures representing the modes of online civic engagement behaviour that were originally coded by the author. Overall, inter-rater

reliability resulted in a perfect agreement for 81 per cent (25 of 31 images were matched) of the captured screen check-coded. Intra-coder reliability was applied by the researcher who engaged in a second round of coding one month after the initial round of coding as an additional reliability check. The intra-rater reliability resulted in a perfect agreement on 90 per cent (28 of 31 images matched) of the quotes check-coded. Appendix 8 provides examples of the intra-coder and inter-coder reliability matrices for the online civic engagement behaviour modes.

6.5 Chapter summary

This chapter examined how activists and/or their organisations used social media for civic engagement. The social media site analysis collectively points to five major modes of online civic engagement behaviour: collection of information, publication of information, dialogue, coordination of actions and lobbying decision makers. Phase 2 also validates the findings from Phase 1's interviews of the usage of social media in addressing the social issues. These modes were similar to the literature of Denning (2000) but in a different context. This study looks at civic engagement from the perspective of addressing social issues, rather than for purely political activism. In addition, the results from Phase 2 suggest that these social media sites have become the 'public face' of both activists and their organisations. The findings further suggests that social media, in particular, Facebook is a popular venue for individuals to promote other online resources by recirculating Web links, a practice known as 'audience gatekeeping' (Shoemaker & Vos, 2009, p.113; see section 2.7.2 for definition). Overall, the social media sites studied in Phase 3 represent a kind of vehicle through which powerful, intense and meaningful public interactions can take place in addressing social issues.

CHAPTER 7: NEW SCALE DEVELOPMENT FOR ONLINE CIVIC ENGAGEMENT BEHAVIOUR

7.1 Introduction

This chapter presents the results of a survey study from the development of a new measure for a single construct, which is online civic engagement. The findings from the interviews and web analysis (Phase 1 and Phase 2) were fed into Phase 3, which is the development of a new scale for online civic engagement behaviour. Figure 7.1 is an outline for Phase 3 (Chapter 7) and Phase 4 (Chapter 8). Phase 3 outlines: (1) the sampling criteria of participants for the expert studies; (2) the development of survey measures (3) conducting the expert studies to validate the new scales of measurement; and (4) the development, pre-testing and testing of a pilot survey.

A total of 137 working adults Facebook users completed the survey for the development of the new measures for online civic engagement behaviour in full. The major outcome of Phase 3 was the validation of the scales of measurement for online civic engagement behaviour, which consisted of two modes: civic expressions and civic actions. The EFA analysis results showed that online civic engagement behaviour can be measured by twelve items. However, the CFA analysis revealed that online civic engagement behaviour is best represented by ten items. Nevertheless, all twelve items which represents online civic engagement behaviour in Phase 3 were fed into the survey instrument in Phase 4 (Chapter 8) where another round of EFA and CFA were conducted. The analysis of online civic engagement behaviour in Phase 4 was consistent with the CFA findings in Phase 3 and verified that online civic engagement behaviour (civic expressions and civic actions) represents the ten items indicated in the CFA of Phase 3.

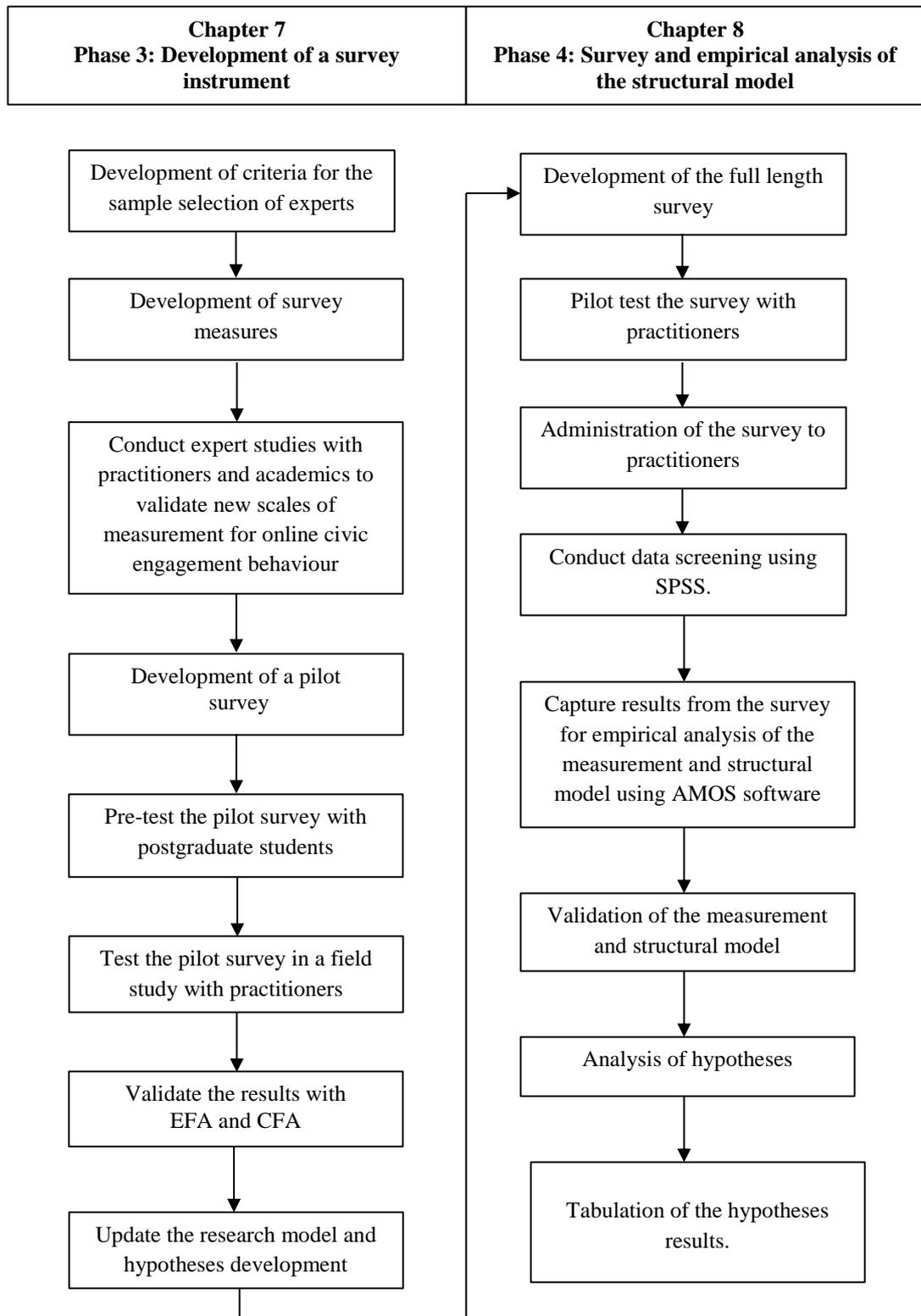


Figure 7.1 Overview of the research design for Phases 3 and 4

7.2 Initial Item Development

In forming an initial set of items for a scale, a solid definition of the construct is crucial. For the present effort, the following working definition for online civic engagement behaviour was developed based on Denning (2000). Social issues in this context for the survey refer to the three prevalent social problems identified from the interviews (Chapter 5). This definition by Denning (2000) has five major components, which are referred to as modes. The definition of online civic engagement behaviour applied in this phase is: the use of the Internet in support of an agenda or cause and includes five modes of Internet activism: collection of information, publication of information, dialogue, coordination of actions and lobbying decision makers (Denning, 2000). The modes are explained as follows:

Collection of information:	Reading and/or searching for information pertaining to social issues using social media.
Publication of information:	Constructing websites and/or publishing materials on social issues including emails, post links, messages and articles using social media.
Dialogue:	Using social media to share opinions on public matters in a conversational manner.
Coordination of action:	Forming coalitions, coordinating and/or organizing activities that address social issues using social media.
Lobbying decision makers:	A social media effort that calls for a response and/or to pressure authorities in charge to address a social issue.

7.2.1 Stage 1: Item Creation

The objective of this first step was to ensure content validity. According to Davis (1989, p.3), psychometricians emphasize that the validity of a measurement scale is built in from the outset and often recommend the ‘domain sampling model (Bohrnstedt, 1970; Nunnally, 1978), which assumes there is a domain of content corresponding to a variable that one is interested in measuring’. Davis (1989) explained that candidate items representative of the domain of content should be selected. Following the recommendations of Davis (1989) and Anastasi (1986), the items used to construct the online civic engagement behaviour scale were derived from the definition and the content domain of Internet activism by Denning (2000). For this study, the term Internet activism is used interchangeably with online civic engagement.

To generate a sample of items, first, as many items as possible were identified and modified from existing similar scales that fit the construct definition and its content domain. Additional items were then added to improve the quality of the scale. Items were created in such a way to express or strongly imply the five modes embedded in the construct definition, yielding an initial pool of 25 items. Next, two IS professionals, two activists and two PhD academics, who are all social media users, were asked to evaluate the phrasing and clarity of the indicators and adequacy of the domain coverage. Based on the feedback, some sentences were rephrased prior to the next testing stage.

The scale used was a seven-point scale: Never (1); rarely, 10% of the time (2); occasionally, 30% of the time (3); sometimes, 50% of the time (4); frequently, 60% of the time (5); usually, 70% of the time (6); and very often, more than 70% of the time (7). This measure of frequency usage applied was similar and consistent with previous measures of media use employed by previous scholars (see for example Valenzuela,

Arriagada and Scherman, 2012). The decision to include the percentage to represent the scale was suggested by an expert (a Professor with Quantitative and scale development background and publications) during the validation process of the survey in Phase 3. This was to provide a clearer understanding of the meanings of the frequency levels by differentiating them by percentages. The 25 items are shown in Table 7.1.

7.2.2 Stage 2: Scale Development

The measurement scales for online civic engagement behaviour were adapted from prior literature and developed from the definition based on Denning (2000). The items were validated in a series of procedures to ensure content validity, construct validity, and reliability (Straub, 1989). Another goal of this stage was also to identify any particular items, which may have been ambiguous. In order to achieve these goals, the draft scales were pretested using a similar technique applied by Bassellier and Benbasat (2004), and Moore and Benbasat (1991).

First, four experts: two PhD academics (one from MIS and another from the field of psychology), one IS professional and one social activist (all social media users) were asked to classify the 25 items in the predetermined modes (content domain of the construct). According to Bassellier and Benbasat (2004), this exercise helps in the establishing the discriminant validity of the items. It further assists in refining the items and eliminating any redundant or confusing ones.

The inter-rater reliability of the classifying process conducted by the experts was assessed using Cohen's Kappa (Cohen, 1960) and the hit ratio method (Moore & Benbasat, 1991). The hit ratio method is the level of agreement among the experts. It is calculated as the percentage of items matched with the intended mode. Construct

validity is measured by the correct match between the items. The higher the percentage of the correct matches, the higher the construct validity (Moore & Benbasat, 1991). Therefore, there is a higher chance of good reliability scores being achieved.

Table 7.1 The initial 25 items

Modes	Indicator items	Supporting Research
Collection of information	1. Read posted news on social issues	Denning (2000) Gil de Zuniga et al. (2012)
	2. Search for contact information of officials	
	3. Search for fuller versions on social issues	
	4. Read other users' page to get news on social issues	
	5. Find users with similar interests on social issues	
Publication of information	6. Post links on social issues	Denning (2000) Valenzuela et al. (2009) Vitak et al. (2011)
	7. Share experiences of social events	
	8. Post images on social issues	
	9. Post news on social issues	
	10. Send social issues related information to followers	
Dialogue	11. Persuade others to join a community event	Denning (2000) Valenzuela et al. (2012) Baek et al. (2012)
	12. Talk about ideas to address issues	
	13. Participate in online discussion groups	
	14. Exchange opinions on social issues using chat function	
Coordination of action	15. Create social event invitations	Denning (2000) Harp et al. (2012) Valenzuela et al. (2012)
	16. Confirm assistance with others on social issue events	
	17. Coordinate activities	
	18. Plan activities for community events	
Lobbying Decision Makers	19. Email a politician on a social issue	Denning (2000) Gil de Zuniga et al. (2012) Valenzuela et al. (2012) Valenzuela et al. (2009)
	20. Submit a complaint to an official	
	21. Make a donation	
	22. Sign up as a volunteer	
	23. Sign a petition	
	24. Change your profile to a caption to support an issue	
	25. Vote for an issue	

Round 1 – The results of the first round of classification procedure demonstrated initial construct validity with an overall hit ratio of 74 per cent. The Kappa scores (83 per cent and 74 per cent), averaging at 79 per cent, were greater than the suggested threshold of 0.65 and demonstrated the inter-rater reliability of the sorting scheme (Lu & Ramamurthy, 2011; Moore & Benbasat, 1991). Items that were deemed too ambiguous (occurring in more than one category) were dropped from the item pool, while the less

ambiguous ones were examined and modified or in the case of item 7 in Table 7.1, rearranged to fit into the right category. Item 7, which initially belonged to the publication of information mode, was moved to the dialogue mode as all experts matched item 7 to the dialogue mode. This exercise resulted in a reduction from the 25 to 17 items for this version of the online civic engagement behaviour. The final 17 selected items for testing are shown in Table 7.2.

Round 2 – A second round of classification was conducted by another two pairs of experts for the 17 selected items using the same approach. The first pair of experts consisted of a working professional from a managerial position and an IS PhD academic. The second pair of experts consisted of an employee from an NGO and a law PhD academic. All four experts have social media experience of over three years and were active in civic engagement activities. The second round of classification procedure resulted with an improved overall hit ratio of 88 per cent. The Kappa scores improved to 87 per cent and 80 per cent, respectively, averaging at 84 per cent. Based on the feedback of the respondents and the improved kappa and hit ratio scores, which also met the suggested threshold of 0.65 and demonstrated the inter-rater reliability of the sorting scheme (Lu & Ramamurthy, 2011; Moore & Benbasat 1991), all 17 items were retained for the pilot testing.

Table 7.2 The 17 items selected by experts

Modes	Items	code
Collection of information	1. Read posted news on social issues	coi1
	2. Search for contact information of supporters	coi2
	3. Search for fuller versions of news	coi3
	4. Read other users' page to get news	coi4
Publication of information	5. Post links on social issues	poi1
	6. Post images/videos on social issues	poi2
	7. Post news on social issues	poi3
Dialogue	8. Participate in online discussion groups	dia1
	9. Share experiences on issues (including expressing frustrations)	dia2
	10. Exchange opinions on social issues	dia3
Coordination of action	11. Create social issue related event invitations	coa1
	12. Confirm assistance with others on social issue events	coa2
	13. Plan activities on social issues with others	coa3
Lobbying Decision Makers	14. Make a donation	ldm1
	15. Sign a petition	ldm2
	16. Vote for a cause	ldm3
	17. Submit a complaint to an official	ldm4

Table 7.3 Inter-rater reliability results

Inter-rater Reliability Assessment	Round 1	Round 2
Cohen Kappa Index		
Expert pair 1	83	87
Expert pair 2	74	80
Average	79	84
Hit Ratio	74	88

7.2.3 Stage 3: Instrument Testing

Pilot Test – The next stage of the development process was an initial pilot test of the overall instrument. Items were randomly ordered from the five modes into a common group. Adopting this method from Moore and Benbasat (1991), the sample size was kept small as this was an initial test. Questionnaires were distributed to a convenient sample of 20 masters and doctoral student Facebook users from the Faculty of Business and Accountancy School. The first aim of this test was to ensure that the mechanics of compiling the questionnaire had been adequate. This was accomplished by having the respondents complete the questionnaire and then comment on its length and working instructions. The second aim of the test was to make an initial reliability assessment of the scales.

The reliability of the constructs, as measured by Cronbach’s alpha, varied from 0.817 to 0.937. These values suggest that the instrument has adequate reliability (Nunnally, 1978). Following Hair et al. (2006), the cut-off points are item-to-total correlations below 0.50, and inter-item correlation below 0.30. All item-to-total correlations were above 0.5 and all inter-item correlations for each mode were above 0.30 except for one inter-correlation between item 2 and item 4 of Table 7.2, for which the value was 0.265. Both items were kept to retain the content domain. Further, deleting item 2 would reduce the overall reliability while deleting item 4 would only increase the reliability by 0.003. Hence, all items were retained for the field test.

Table 7.4 Cronbach’s alpha results

Mode	Cronbach's Alpha
Collection of information	0.817
Publication of information	0.937
Dialogue	0.880
Coordination of action	0.887
Lobbying decision makers	0.922

7.2.4 Stage 4: Field Test (Final pilot survey test)

The next to the last stage of the development process was the field test of the newly developed instrument on online civic engagement behaviour items. The questionnaire included all 17 items of the five civic modes as independent variables and was tested with virtual social skills (adapted from Wang & Haggerty, 2011) as the dependent variable. The purpose of including virtual social skills was to determine the covariance with another variable other than its modes. Other measures for the other variables (trust, incentives and satisfaction in life) were not included for simplicity and because the main intention for this pilot field test was to test the new developed constructs. The sample for this pilot test included 150 adult (18 years of age and above) Facebook users made up of: 30 activists; 30 Information Systems (IS) professionals; 10 IS academic staff; 10 Non-IS academic staff; 20 general academic staff; and 50 public members who are

working. Data collection was personally administered by the researcher to the respondents. A total of 143 questionnaires out of 150 distributed were returned, giving a response rate of 95.3 percent. Missing data were checked and the researcher removed questionnaires with any missing data, resulting in a final dataset of 137 valid cases.

7.3 Measurement model

7.3.1 Exploratory factor analysis

An exploratory factor analysis (EFA) of all the reflective measures of the newly developed measures for online civic engagement behaviour (collection of information, publication of information, dialogue, coordination of activities, lobbying decision makers) and the measures on virtual social skills (adapted from Wang & Haggerty, 2011) was conducted using the maximum likelihood method to extract the initial factors. The EFA employed an oblique method in the rotation phase to take into account the correlation factors, as recommended by past scholars (Choi et al., 2010; Fabrigar et al., 1999; Pedhazur & Schmelkin, 1991). This is in line with several prescriptions for ‘items to be developed to fit the construct’s conceptual meaning as a method of ensuring construct validity’ (Moore and Benbasat, 1991, p.207).

A minimum loading of 0.40 was set for any variable used to define a factor. Items with factor loadings less than 0.40 were suppressed and dropped from the analysis. Each item’s communality was also taken into consideration to assess if the items met acceptable levels of explanation. Items with communality less than 0.50 are considered as not having sufficient explanation (Hair et al., 2006) and were dropped. The dropped items due to low communality are presented in Table 7.5. The Bartlett’s test result for sphericity was significant and the Kaiser-Meyer-Olkin (KMO) measure of sampling

adequacy for this data was 0.870, which is meritorious (Norusis, 1994). Both tests indicate the appropriateness of factor analytic techniques in this study.

Factor loadings indicate the correlation between the variables and the factors so that variables that have large loadings on the same factors are grouped. A factor loading value of 0.50 and above is considered good and very significant; 0.45 is fair and 0.32 and below is poor (Comrey, 1973). Table 7.6 tabulates the loading values and confirms that the significance criteria for the factor loadings of all the variables have been met.

In the same table, the reliability of the constructs, as measured by Cronbach's alpha, varied from 0.826 to 0.917. These values suggest that the instrument has adequate reliability (Nunnally, 1978). Following Hair et al. (2006), the cut-off points are item-to-total correlations below 0.50, and inter-item correlations below 0.30. All item-to-total correlations were above 0.50 and all inter-item correlations for each construct were below 0.30. Furthermore, the corrected item-total correlations were high for the items (>0.60), indicating the internal consistency of the items for each construct (Dinev & Hart, 2006).

In this study, all factors that achieved eigenvalues greater than one are considered as significant; conversely, this study did not include factors with eigenvalues of less than one. Table 7.6 shows that the EFA yielded a three-factor solution wherein all factors have more than one eigenvalue. In all, these three factors accounted for 65 per cent of variance in the data. The analysis also indicated that among the five modes, all of the items pertaining to the collection of information mode were dropped due to low communalities. The remaining four modes were merged to form two modes resulting in

the following two new factors – civic expressions and civic actions, as presented in Table 7.7.

Cronbach’s alpha (Cronbach, 1970) was applied to test for the questionnaire’s reliability for internal consistency. Following More and Benbasat (1991), the target level of minimum reliability was set in the 0.70 to 0.80 range. Civic expressions, civic actions and virtual social skills resulted in Cronbach’s alphas of 0.909, 0.893 and 0.826, respectively, meeting the requirement of the study’s target. Moreover, all item-to-total correlations were above 0.50 and all inter-item correlations for each mode were above 0.30 (Hair et al., 2006).

Table 7.5 Dropped items – Low Communality

Construct	Items Dropped Due to Low Communality (<0.50)	
	Variable code	Item
Collection of Information	coi1	Read posted news on social issues
	coi2	Find contacts of government, private officials or persons in charge of social issues
	coi3	Search for more information on social issues
	coi4	Read social issue postings on friends’ page
Dialogue	dia1	Participate in online discussion groups on social issues
Virtual Social Skills	vss1	In virtual settings at work, I am aware of how I am perceived by others
	vss2	In virtual settings at work, I am good at making myself visible with influential people in my social circle or in my organisation

Table 7.6 EFA and Cronbach's alpha results

Item	Factor		
	1	2	3
coa1	0.695		
coa2	0.709		
coa3	0.892		
ldm1	0.797		
ldm2	0.816		
ldm3	0.811		
ldm4	0.699		
poi1		0.863	
poi2		0.882	
poi3		0.865	
dia2		0.641	
dia3		0.590	
vss3			0.790
vss4			0.772
vss5			0.780
Eigenvalues	6.800	1.889	1.129
% of Variance	45.331	12.596	7.529
Cronbach's α	0.917	0.916	0.826

Table 7.7 The results of EFA for online civic engagement behaviour

Construct	Merged Modes (Content Domain)	Naming of Modes	Code	Items
Online Civic Engagement Behaviour	Publication of information and Dialogue	Civic Expressions	poi1	Post links on social issues
			poi2	Post images/videos on social issues
			poi3	Post news on social issues
			dia2	Share experiences on social issues
			dia3	Exchange opinions on social issues
	Coordination of action and Lobbying decision makers	Civic Actions	coa1	Create social issue related event invitations
			coa2	Confirm assistance with others on social issue events
			coa3	Plan activities on social issues with others
			ldm1	Make a donation
			ldm2	Sign a petition
			ldm3	Vote for a cause
			ldm4	Submit a complaint to an official

7.3.2 Naming of the merged factors

The names of the two factors were given based on the definitions of the merged modes.

Face validity was conducted with two PhD academics (one in IS and the other in

psychology), one social activist and one IS manager to see its suitability and relevance. They were asked to provide feedback and match the twelve civic behavioural items to the two new named modes (civic expressions and civic actions) based on the given definition of online civic engagement behaviour: the use of the Internet in support of an agenda or cause and includes two modes of civic communication, which are, civic expressions and civic actions. The modes are explained in Table 7.8.

Table 7.8 The meanings of civic expressions and civic actions

Modes	Explanations
Civic expressions	The forms of civic expressions include: <ul style="list-style-type: none"> • Constructing websites and/or publishing materials on social issues including emails, post links, messages and articles using social media. • Using social media to share opinions on public matters in a conversational manner.
Civic actions	The forms of civic actions include: <ul style="list-style-type: none"> • Forming coalitions, coordinating and/or organizing activities that address social issues using social media • A social media effort that calls for a response and/or to pressure authorities in charge to address a social issue.

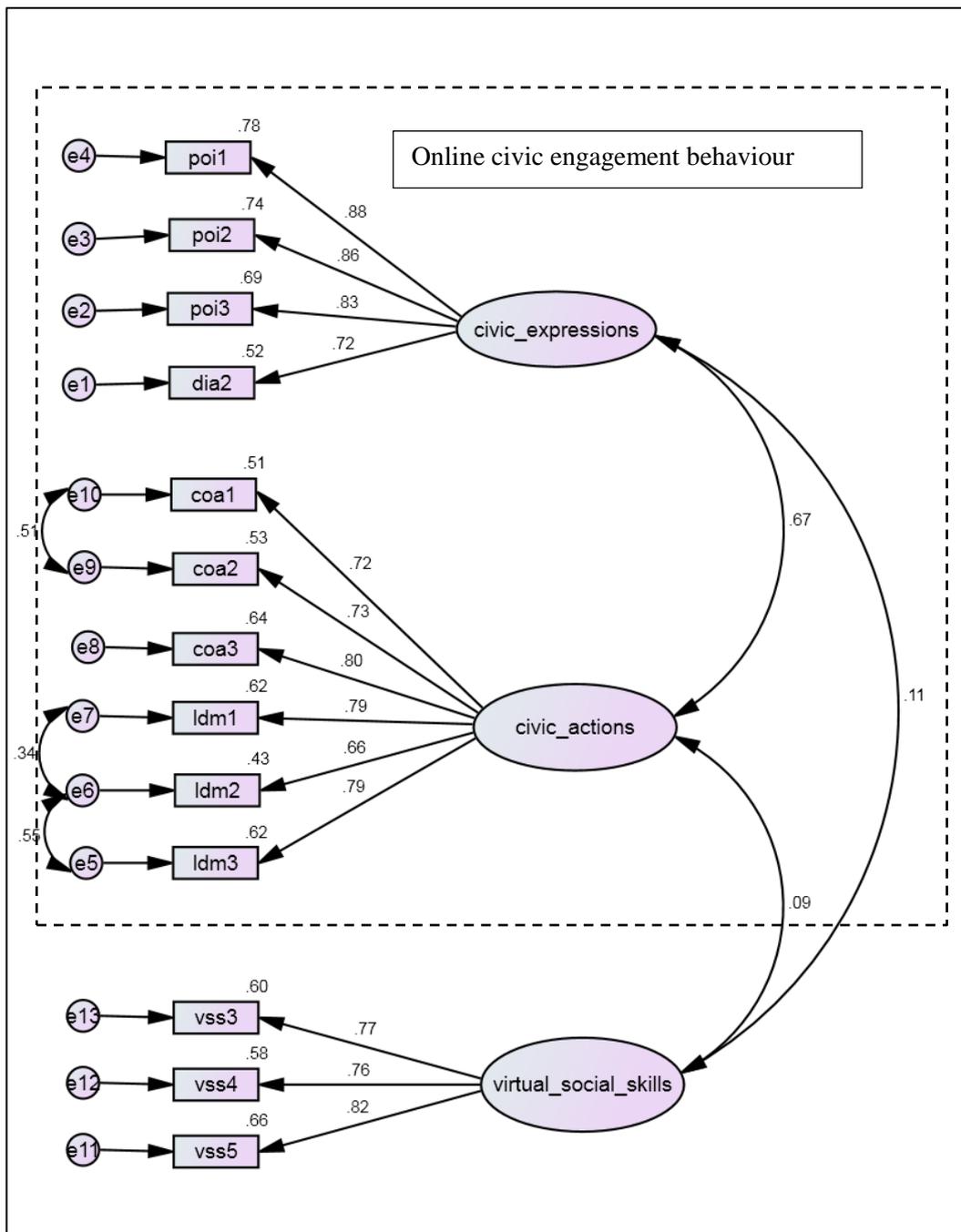
There was a 100 per cent correct match of the twelve items to the targeted new modes by all four experts. The experts also commented that the naming conventions were suitable and that both modes reflected the meaning of the definition and explanations given respectively. This matrix validation scale is presented in Appendix 10.

7.3.3 Confirmatory factor analysis

The purpose of conducting a confirmatory factor analysis (CFA) in this pilot field test was to (1) validate the newly and existing psychometric properties and (2) examine whether the measurement model for the pilot field test achieved an acceptable goodness-of-fit, and (3) investigate its convergent and discriminant validity, and reliability before proceeding to the final full scale field test with the full version of the questionnaire including the newly validated modes.

The overall goodness-of-fit for the model reached the cut-off value (Hair et al., 2006). The χ^2/df was 1.643 and below the desired threshold of 3.0. The root mean squared error of approximation (RMSEA) was 0.069, below the 0.08 cut-off level. In addition, the normed fit index (NFI = 0.916), the Tucker Lewis index (TLI = 0.955) and confirmatory fit index (CFI = 0.965) were greater than the required value of 0.90. Finally, the goodness-of-fit (GFI = 0.912) and adjusted GFI (AGFI=0.864) were greater than the threshold value of 0.8. Thus, it can be concluded that the measurement model fitted the data well.

For convergent validity, all indicator factor loadings should be significant and exceed 0.50 (Hair et al., 2006), Fornell and Larcker (1981) suggested another two criteria to assess convergent validity, which is that composite reliabilities should exceed 0.70, and the average variance extracted (AVE) for each construct should exceed the variance due to the measurement error for that construct. As shown in Table 7.9, all factor loadings in the CFA model exceed 0.6 and were significant at $p = 0.001$. The composite reliabilities were 0.883 (civic actions), 0.896 (civic expressions) and 0.827 (virtual social skills), while the AVE values were well above the cut-off value of 0.50 and greater than the variance due to measurement error. Therefore, it is evident that the model met all three conditions for convergent validity. The results also indicated that all correlations between constructs were less than 0.70 and less than the square root value of the AVE, which demonstrated the discriminant validity of the model (Table 7.10).



Note: The items dia3 and ldm4 were dropped to improve the mean squared error of approximation (RMSEA), which was initially greater than 0.08. The new measure of online civic engagement behaviour consists of two modes – civic expressions and civic actions.

Figure 7.2 The measurement model of the pilot survey data on for the new measure of online civic engagement behaviour

Table 7.9 Cronbach's alpha, composite reliability and AVE.

Construct	Item	Item Loadings	Cronbach's alpha	Composite Reliability	Average Variance Extracted
Civic actions	coa1	0.717	0.909	0.883	0.559
	coa2	0.726			
	coa3	0.798			
	ldm1	0.788			
	ldm2	0.657			
	ldm3	0.790			
Civic expressions	poi1	0.883	0.893	0.896	0.683
	poi2	0.863			
	poi3	0.828			
	dia2	0.723			
Virtual social skills	vss3	0.773	0.826	0.827	0.614
	vss4	0.762			
	vss5	0.815			

Table 7.10 Mean, standard deviation and square root of the average variance extracted

	Mean	SD	Civic actions	Civic expressions	Virtual Social Skill
Civic actions	2.804	1.334	0.748		
Civic expressions	3.325	1.483	0.675	0.827	
Virtual social skills	4.672	1.049	0.095	0.107	0.784

Notes: Values in diagonal represent the square root of the average variance extracted

The results from this pilot field study provided the necessary validation, reliability and confidence for the newly developed constructs to be tested in a larger sample size in the full scale instrument, which included all of the independent and dependent variables for this study.

7.4 Revised research model and hypotheses

The findings from Chapter 7 were integrated into the research model as depicted in the following diagram (Figure 7.3).

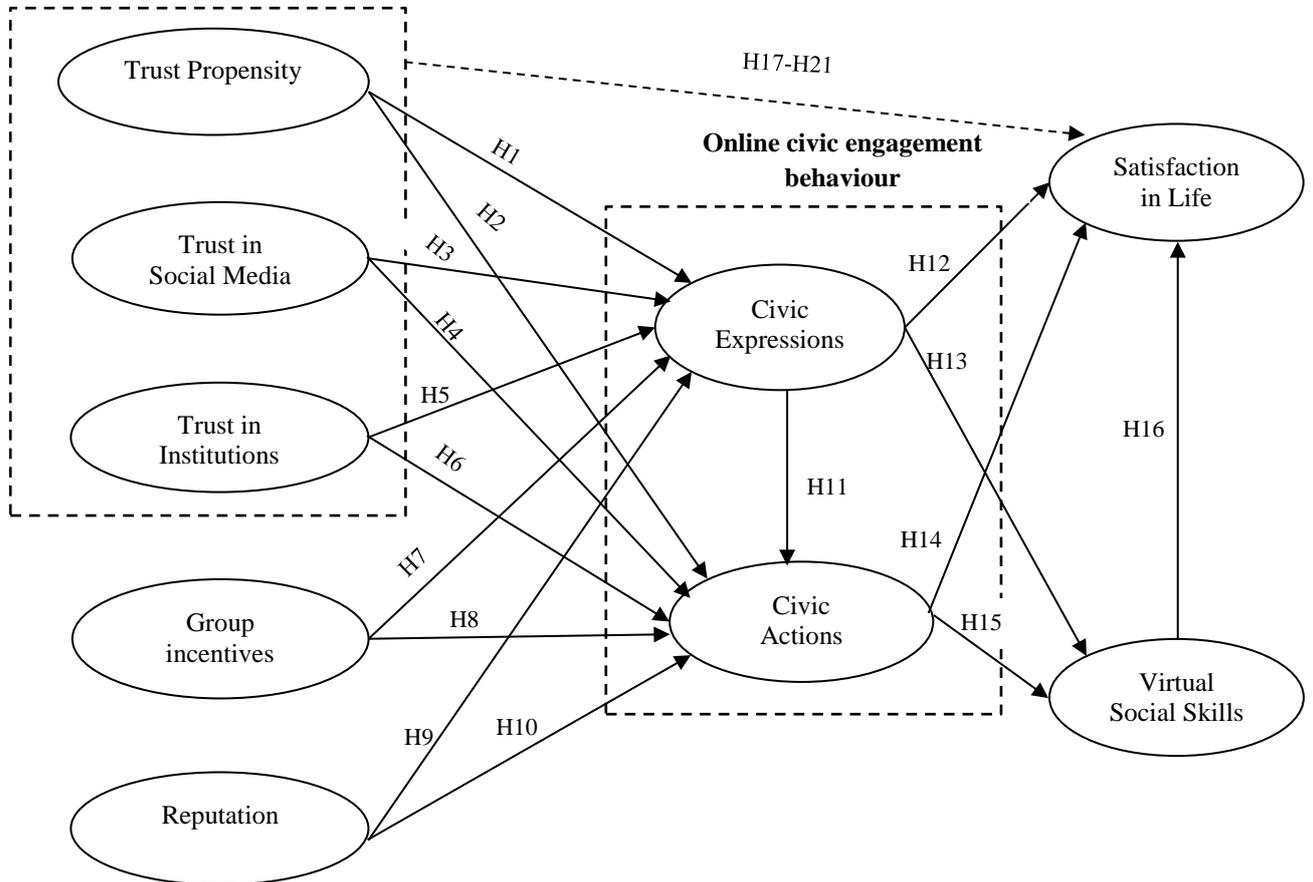


Figure 7.3 The revised online civic engagement model

Note: H17-H21 are the hypotheses testing the mediating effects of online civic engagement behaviour on the different trust factors and satisfaction in life.

The revised hypotheses:

Trust propensity and online civic engagement behaviour

H1: A higher level of trust propensity is related to a higher level of participation in civic expressions.

H2: A higher level of trust propensity is related to a higher level of participation in civic actions.

Trust in social media and online civic engagement behaviour

H3: A higher level of trust in social media is related to a higher level of participation in civic expressions.

H4: A higher level of trust in social media is related to a higher level of participation in civic actions.

Trust in institutions and online civic engagement behaviour

H5: A lower level of trust in institutions is related to a higher level of participation in civic expressions.

H6: A lower level of trust in institutions is related to a higher level participation in civic actions.

Group incentives and online civic engagement behaviour

H7: Individuals who perceive that participation in social issues will help them gain group incentives will engage more frequently in civic expressions.

H8: Individuals who perceive that participation in social issues will help them gain group incentives will engage more frequently in civic actions.

Reputation and online civic engagement behaviour

H9: Individuals who perceive that participation in social issues will enhance their reputation will engage more frequently in civic expressions.

H10: Individuals who perceive that participation in issues will enhance their reputation will engage more frequently in civic actions.

Relationship between the modes of online civic engagement behaviour: civic expressions and civic actions

H11: A higher level of participation in online civic expressions is related to a higher level of participation in online civic actions.

Online civic engagement behaviour and its impact on satisfaction in life and virtual social skills.

H12: A higher level of participation in online civic expressions affectsis related to a higher the level of satisfaction in life.

H13: A higher level of participation in online civic expressions is related to a higher level of virtual social skills.

H14: A higher level of participation in online civic actions is related to a higher level of satisfaction in life.

H15: A higher level of online civic actions is related to a higher level of virtual social skills.

Virtual social skills and satisfaction in life

H16: A higher level of virtual social skills is related to a higher level of satisfaction in life.

Mediating effects of civic expressions

H17: The effects of trust propensity on satisfaction in life will be mediated by civic expressions.

H18: The effects of trust in social media on satisfaction in life will be mediated by civic expressions.

H19: The effects of trust in institutions on satisfaction in life will be mediated by civic expressions.

Mediating effects of civic actions

H20: The effects of trust propensity on satisfaction in life will be mediated by civic actions.

H21: The effects of trust in social media on satisfaction in life will be mediated by civic actions.

H22: The effects of trust in institutions on satisfaction in life will be mediated by civic actions.

7.5 Chapter summary

This chapter outlined the development of a survey instrument (Phase 3). The outcome of Phase 3 was the new developed construct – online civic engagement behaviour consisting of two modes: civic expressions and civic actions, which have been validated by expert studies and tested by pilot studies. The survey was administered to 150 working adults who were social media users. Of the 143 returned, 137 surveys were usable. The findings from Phase 3 were fed into the research model, resulting in the revised research model and hypotheses. There are now 16 hypotheses. All hypotheses were tested and the results are presented in Chapter 8.

CHAPTER 8: SURVEY ANALYSIS

8.1 Introduction

The data analysis of the survey is presented in six parts – pilot test results, data screening, demographics, test of measurement model, test of the structural model analysis and testing the mediating effects of the modes of online civic engagement behaviour. First, a pilot study was conducted using convenience sampling to ensure that the mechanics of the instrument and the length of the questionnaire were adequate. Next, the field test was carried out. Upon obtaining the responses, data screening was conducted using SPSS version 20 on the data in order to ensure that the data were clean, useful and reliable. Then the sample profile obtain was reported. Next, the study employed the two-step process to analyse the screened data as recommended by Anderson and Gerbing (1988). In the first step, we estimated the best measurement model using AMOS version 20. The measurement models were discussed to confirm the reliability, convergent and discriminant validity of the constructs, as well as the validity of the second-order construct. In the second step, the structural model was analysed to test the hypothesised relationships among the constructs. Finally, the mediating effects of the modes of online civic engagement behaviour (H17- H22 in Figure 7.3) were tested and reported.

8.2 Pilot Study

An initial pilot test of the overall instrument was conducted with all of the variables depicted in the revised research model including the newly developed items for online civic engagement from Chapter 7. The sample size was kept small as this was a pilot study. Questionnaires were distributed to a convenient sample of 30 working adult Facebook users from business and non-business organisations. The first aim of this test was to ensure that the mechanics of compiling the questionnaire had been adequate.

This was accomplished by having the respondents complete the questionnaire and then comment on its length and working instructions. The second aim of the test was to make an initial reliability assessment of the scales.

Based on the feedback from the respondents, the questionnaire's instructions and length were deemed adequate. The reliability of the constructs, as measured by Cronbach's alpha, varied from 0.810 to 0.951. These values suggest that the instrument has adequate reliability (Nunnally, 1978). Following Hair et al. (2006), the cut-off points are item-to-total correlations as 0.50, and inter-item correlation to be 0.30. All item-to-total correlations were above 0.50 and all inter-item correlations for each mode were above 0.30 except for four items, two from the variable civic actions and another two from virtual social skills. All four items were kept to retain the content domain of each variable. Further, deleting the items would reduce the overall reliability. Hence, all items were retained for the field test.

Table 8.1 Cronbach's alpha results for pilot study

Mode	Cronbach's Alpha
Reputation	0.951
Trust propensity	0.943
Trust in institution	0.936
Group incentives	0.923
Civic expressions	0.919
Trust in social media	0.889
Satisfaction in life	0.842
Civic actions	0.838
Virtual social skills	0.810

8.3 Data Screening

The data screening procedure addressed six issues: to ensure variable purification and that the data are useful, reliable and valid prior to statistical testing.

- i. Missing Data
- ii. Outliers
- iii. Normality
- iv. Linearity
- v. Homoscedasticity
- vi. Multicollinearity

8.3.1 Response rate

A total of 638 employees from 96 companies of PLC and non-PLCs responded, resulting in a response rate of 66.5 per cent.

8.3.2 Missing Data

The researcher removed questionnaires with any missing data in the sample resulting in the removal of twelve surveys. Next, the data were checked for consistency, which resulted in removing six surveys which had the same marked answer for all items. This resulted in a final dataset of 620 valid cases. See Appendix 15.

8.3.3 Outliers

To detect outliers on each variable in the model, boxplot in SPSS were used. Outliers appeared at the extremes for item vss2 of virtual social skills, as shown in Appendix 16. After removing one of the identified extreme cases labelled 375, no outliers appeared for virtual social skills resulting in a total of 619 remaining valid cases. An overall

check for outliers for the 619 cases showed that there were no outliers in the items. See the boxplots in figures in Appendix 16.

8.3.4 Normality

Normality refers to the distribution of the data for a particular variable. Prior to conducting any parametric tests, normality for the data tested must be ensured. Furthermore, following the recommendation of Fabrigar, Wegener, MacCallum and Strahan (1999), the distributions of measured variables need to be examined to ensure normality prior to conducting maximum likelihood extraction in Exploratory Factor Analysis. In this study, the researcher examined item skewness and kurtosis to assess normality. All items for skewness and kurtosis fell within the acceptable standard range of +1.96 and – 1.96 at the 0.05 error level, indicating that the data can be assumed to be normal (Hair et al., 2006).

For multivariate analysis, Kline (2005, p.50) states that “absolute values of kurtosis index greater 10 may suggest a problem, and values greater than 20 may indicate a more serious one”. The multivariate normality results were within the cutoff absolute values, indicating that the data has no serious departure from normality. See Appendix 17. This study follows the approach depicted in the work of Rutner, Hardgrave and McKnight (2008).

8.3.5 Linearity

In this study, the test of linearity was assessed using the deviation from linearity test available in the ANOVA test and the linear regression test in SPSS. The overall results for the test of linearity between Independent Variable (IV) and Dependent Variables (DV) in the research model can be assumed to be sufficiently linear, as summarized in

Appendix 18. Items no. 1 until no. 9 (in the table in Appendix 18) had significant values for deviation from linearity greater than 0.05, indicating that the relationship between the IV and the DV is linear. For items no. 10-15 where the results had a deviation of less than 0.05 for the ANOVA test of linearity, an Ordinary Least Squares (OLS) linear regression between each IV to DV pair was then conducted as a cross check for further confirmation on its linearity.

The results from the OLS linear regression tests for item nos. 12 -16 showed that the p-value was significant at 0.000 (< 0.05), therefore, the relationship for these items can be considered to be sufficiently linear. However, the OLS results for civic expressions and trust in institutions was 0.992, which is > 0.05 , reflecting non-linearity. After removing item truI11 in the construct for trust in institutions and re-running the ANOVA, test of linearity between civic expressions and trust in institutions, the Sig value = 0.116, indicating a linear relationship between the two constructs. A linear relationship was also exhibited between civic actions and trust in institutions with a Sig value of 0.095 (>0.05).

8.3.6 Homoscedasticity

The presence of unequal variances was assessed using scatter plots in SPSS. All plots in the figures in Appendix 19 exhibited a presence of equal variances among the data.

8.3.7 Multicollinearity

All Variable Inflation Factors (VIF) indicated from the results shown in Appendix 20 are less than 3, indicating that no serious multicollinearity was found.

8.4 Demographic Results

There was almost an equal number of respondents in terms of gender and marital status in this study's sample. Of the 619 completed and usable surveys, 49.8 per cent of the respondents were male and 50.2 per cent were female. More than half of the sample are Malays while the Chinese represent about 25 per cent of the sample. The ethnicity ratio in this sample was in accordance with Malaysia's population and demographic statistics. All of the respondents were educated, with about 60.5 per cent of the respondents holding either a degree or post graduate degree. Most of the respondents were young working adults from the age category of 26 to 35 (49.3 per cent). This finding concurs with the results of a statistical report by the Malaysian Communication and Multimedia Commission (MCMC, 2012), in which the similar age group has been reported as having the highest usage of the Internet in the country. Table 8.2 presents the sample profile.

The controlling variables for this study were age, gender, education, race and marital status. Race represented a similar proportion percentage according to the Malaysian demographics. The statistical results from the t-test indicated that the male respondents were significantly more civically engaged in terms of expressing their concerns online (mean = 3.54, p-values = 0.033) than female Facebook users. The ANOVA statistical test results suggested that respondents in the age range of 18 to 25 were found to be significantly more engaged in civic behaviour on Facebook than the age group of 36 to 45. These respondents had a higher frequency in online civic expressions (mean = 3.63, p-value= 0.016) and in online civic actions (mean = 3.05, p-value=0.004). The findings suggest that the youth were more active with partaking in civic affairs on Facebook than the other age groups. There were no significant differences in civic engagement

behaviour on Facebook in terms of marital status, education level and races. The results are presented in Appendix 21.

Table 8.2 Sample profile

Socio-demographic characteristics (%)		Percentage
Age	18-25	18.7
	26-35	49.3
	36-45	19.5
	46-45	10.7
	56-65	1.8
Gender	Male	49.8
	Female	50.2
Race	Malay	54.4
	Chinese	24.4
	Indian	7.3
	Others	13.9
Education	High school	16.2
	Diploma	23.3
	Degree	39.7
	Postgraduate	20.8
Marital Status	Single	52.8
	Married	47.2

8.5 Mean Results

Overall, the participants were found to sometimes trust Facebook in terms of competency, reliability and safety in posting information (mean = 3.33). Citizens in the sample were more actively engaged in civic expressions (mean = 3.42) than taking up civic actions online (mean = 2.77). The majority of the participants posted social issues on Facebook (mean = 3.63). This suggests that citizens are sometimes concerned in creating awareness (among other uses) concerning crime, issues pertaining to public disengagement in moral values and civic matters and quality of education. Participants also use Facebook to plan civic activities in addressing these social issues (mean = 3.16). A number of users invite the public to join in these activities, while others sign petitions and vote online.

The average perceived thought that engaging in social issues would benefit themselves, for groups that they care about and the society in general, has yielded a positive tone (mean = 4.82). Overall, most participants believed that addressing social issues would help unite the community (mean = 4.94), indicating a sense of altruism instilled in them for contributing to community issues. In contrast, personal benefit obtained through civic efforts scored a mean of 4.00.

The overall mean for citizens' trust propensity was 3.90 while their trust in institutions was found to be lower at 3.13. It seems that citizens trust people in general more than their ruling politicians, the police and even the justice systems. Despite the lack of trust in the current institutions, citizens were quite satisfied with their life (mean = 4.57) and were perceived to be quite competent in their online social skills at work (mean = 4.70). The mean for each of the items is tabulated in Table 8.3.

Table 8.3 Mean and standard deviation of survey items

Online civic engagement behaviour, trust & benefit factors satisfaction in life & virtual social skills items		Mean (N=619)	S.D.
Item	Civic expressions		
poi1	Post links on social issues on Facebook	3.63	1.66
poi2	Post videos/images of issues on Facebook	3.57	1.55
poi3	Post news on social issues on Facebook	3.41	1.62
dia2	Share experiences on social issues on Facebook	3.09	1.60
	Overall	3.42	1.39
	Civic actions		
coa1	Create social issue related events on Facebook	3.16	1.66
coa2	Confirm assistance with others on social issue events on Facebook	3.00	1.65
coa3	Plan activities on social issues with others on Facebook	2.87	1.54
ldm1	Make a donation via a Facebook link	2.93	1.60
ldm2	Sign a petition via a Facebook link	2.28	1.37
ldm3	Vote for a cause via a Facebook link	2.91	1.65
	Overall	2.77	1.22

Table 8.3, continued

Online civic engagement behaviour, trust & benefit factors satisfaction in life & virtual social skills items		Mean (N=619)	S.D.
Item	Trust Propensity		
truP1	Most people keep promises	3.97	1.29
truP2	Most people are honest	3.86	1.25
truP3	Most people are trustworthy	3.82	1.22
truP4	Most people keep commitments	3.97	1.41
truP5	Most people are reliable	3.87	1.23
	Overall	3.90	1.28
	Trust in social media		
truS8	FB handles personal information competently	3.29	1.41
truS9	I feel safe to post information on FB	3.23	1.42
truS10	FB has sufficient privacy settings	3.47	1.51
	Overall	3.33	1.45
	Trust in Institutions		
truI12	Politicians can be trusted	2.69	1.42
truI13	The police can be trusted	3.15	1.60
truI14	The courts in the country can be trusted.	3.38	1.53
truI15	The justice system is fair	3.30	1.54
	Overall	3.13	1.52
	Group Incentives		
incG4	Engaging in social issues is a must for every citizen if we want to reduce social problems for the benefit of our nation	4.71	1.36
incG5	Engaging in social issues helps bring the community together	4.94	1.26
incG6	Engaging in social issues improves my relationship with the community	4.81	1.28
	Overall	4.82	1.30
	Reputation		
rep1	Engaging in social issues improves my status	4.06	1.41
rep2	Engaging in social issues improves my reputation at work	3.98	1.41
rep3	Engaging in social issues allows me to earn respect from others at work	4.04	1.43
rep4	Engaging in social issues increases my social standing among friends	4.10	1.45
rep5	Engaging in social issues makes me more popular in my social circle at work	3.81	1.48
	Overall	4.00	1.44
	Satisfaction in life		
sat1	In most ways my life is close to my expectations.	4.88	1.31
sat2	The conditions of my life are excellent	4.66	1.39
sat3	I am satisfied with my life.	4.17	1.58
	Overall	4.57	1.43
	Virtual social skills		
vss3	In virtual settings at work, I am able to put myself in other people's position to understand their point of view	4.69	1.22
vss4	In virtual settings at work, I am able to socialize easily	4.70	1.16
vss5	In virtual settings at work, I am good at sensing the motivations and hidden agendas of others	4.72	1.18
	Overall	4.70	1.19

8.6 Test of the Measurement Model: Model 1

The measurement model for Model 1 includes the first-order level of the online civic engagement behaviour constructs, civic expressions and civic actions (see Figure 8.1).

8.6.1 Exploratory Factor Analysis

The study conducted an Exploratory Factor Analysis (EFA) of all measures in the instrument. This includes the newly developed online civic engagement behaviour (civic expressions and civic actions), trust propensity, trust in social media, trust in institutions, group incentives, reputation, satisfaction in life and virtual social skills. EFA was deployed using the maximum likelihood method to extract the initial factors, and employed an oblique method in the rotation phase to take into account the correlation factors, as recommended in past studies (Choi et al., 2010; Fabrigar et al., 1999; Pedhazur & Schmelkin, 1991).

A minimum loading of 0.40 was set for any variable used to define a factor. Items with factor loadings less than 0.40 were suppressed and dropped from the analysis. Each item's communality was also taken into consideration to assess if the items met acceptable levels of explanation. Items with a communality of less than 0.50 are considered as not having sufficient explanation (Hair et al., 2006) and were dropped. The dropped items due to low communality and cross loadings are shown in Table 8.4.

The Bartlett's test result for sphericity was large at 15966.529 and the associated significance level small at 0.000. The result of Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy for this data was 0.868, which is meritorious (Norusis, 1994). Both tests indicate the appropriateness of factor analytic techniques in this study.

Table 8.4 Dropped items

Construct	Items Dropped Due to Low Commuality (<0.50)	
	Variable Name	Item
Lobbying Decision Makers	ldm4	Submit a complaint to an official
Trust in Social Media	trus6	FB is a safe place to exchange information
	trus7	FB is a reliable environment to coordinate activities
Group Incentives	incg1	Helps us to learn more about our country
	incg2	Engaging in social issues is a good way to get benefits for myself and family
	incg3	Engaging in social issues is a way to get benefits for groups that I care about
Satisfaction in Life	sat4	I have gotten the important things I want in life
	sat5	If I live my life over, I would change almost nothing
Virtual Social Skills	vss1	In virtual settings at work, I am aware of how I am perceived by others
	vss2	In virtual settings at work, I am good at making myself visible with influential people in my social circle or in my organisation
Construct	Item Dropped due to Cross Loadings	
	Variable Name	Item
Dialogue	dia3	Exchange opinions on social issues

Note: Although 11 items were dropped from the 46 items, the remaining 35 items were representative of the nine factors resulting from the EFA, with a minimum of 3 items representing one factor.

In this study, all factors that achieved eigenvalues greater than one were considered as significant; conversely, this study did not include factors with eigenvalues of less than one. Table 8.5 shows the final nine factor solution wherein all factors have more than one eigenvalue. In all, these nine factors account for 68.268 per cent of variance in the data.

Factor loadings indicate the correlation between the variables and the factors so that variables that have large loadings on the same factors are grouped. Hair et al. (1995) consider a factor loading of 0.30 to be significant, and a factor loading of 0.50 as very significant. Table 8.9 shows the loading values and it confirms that the significance criteria for the factor loadings of all the variables have been met.

In Table 8.5, the reliability of the constructs, as measured by Cronbach's alpha, varied from 0.814 to 0.952. These values suggest that the instrument has adequate reliability (Nunnally, 1978). Following Hair et al. (2006), the cut-off points are item-to-total

correlations below 0.50, and inter-item correlation below 0.30. All item-to-total correlations were above 0.5 and all inter-item correlations for each construct were below 0.30. Furthermore, the corrected item-total correlations were high for the items (>0.60), indicating internal consistency of each construct's items (Dinev & Hart, 2006). The final items to be used for the measurement model are shown in Table 8.6.

The correlation matrix in Table 8.7 indicated that a large number of correlations exceeded the recommended minimum level of 0.30. (Hair et al., 1995; Nunnally, 1978; Norusis, 1994). Factors 2 and 5 are the content domain of online civic engagement behaviour, which are fairly correlated at > 0.50 . Similarly, factors 1 and 9 have > 0.50 as they both belong to the incentive category (factor 1 – reputation; factor 9 – group incentives). The trust antecedents – trust propensity (factor 3), trust in social media (factor 7) and trust in institutions (factor 4) have correlations > 0.30 .

Table 8.5 Exploratory Factor Analysis and Cronbach's alpha

Exploratory Factor Analysis and Cronbach's alpha (Note: loadings below 0.4 excluded)									
	Constructs								
	REP	CA	TP	TI	CE	SAT	TS	VSS	GI
rep1	0.884								
rep2	0.954								
rep3	0.858								
rep4	0.886								
rep5	0.853								
coa1		0.674							
coa2		0.751							
coa3		0.846							
ldm1		0.799							
ldm2		0.692							
ldm3		0.629							
truP1			0.698						
truP2			0.944						
truP3			0.944						
truP4			0.775						
truP5			0.683						
truI12				0.602					
truI13				0.884					
truI14				0.965					
truI15				0.876					
poi1					0.817				
poi2					0.871				
poi3					0.867				
dia2					0.471				
sat1						0.820			
sat2						0.952			
sat3						0.766			
truS8							0.811		
truS9							0.903		
truS10							0.703		
vss3								0.793	
vss4								0.730	
vss5								0.784	
incG4									0.655
incG5									0.906
incG6									0.680
Eigen value	8.262	3.85	3.592	2.107	2.125	1.406	1.041	1.162	1.031
% of variance	22.949	10.696	9.979	5.852	5.902	3.906	2.892	3.228	2.864
Cronbach's α	0.952	0.873	0.907	0.909	0.886	0.877	0.852	0.814	0.835

Notes: REP - reputation; CA - civic actions; TP- trust propensity; TI- trust in institutions; CE - civic expressions; SAT- satisfaction in life; TS - trust in social media; VSS - virtual social skills; GI- group incentives.

Table 8.6 Summary of EFA – Items in the instrument

Constructs	Code	Items
Civic Expressions	poi1	Post links on social issues
	poi2	Post images/videos on social issues
	poi3	Post news on social issues
	dia2	Exchange opinions on social issues
Civic Actions	coa1	Create social issue related event invitations
	coa2	Confirm assistance with others on social issue events
	coa3	Plan activities on social issues with others
	ldm1	Make a donation
	ldm2	Sign a petition
	ldm3	Vote for a cause
Trust Propensity	truP1	Most people keep promises
	truP2	Most people are honest
	truP3	Most people are trustworthy
	truP4	Most people keep commitments
	truP5	Most people are reliable
Trust in Social Media	truS8	FB handles personal information competently
	truS9	I feel safe to post information on FB
	truS10	FB has sufficient privacy settings
Trust in Institutions	truI12	Politicians can be trusted
	truI13	The police can be trusted
	truI14	The courts in the country can be trusted
	truI15	The justice system is fair
Group Incentives	incG4	Engaging in social issues is a must for every citizen if we want to reduce social problems for the benefit of our nation
	incG5	Engaging in social issues helps bring the community together
	incG6	Engaging in social issues improves my relationship with the community
Reputation	rep1	Engaging in social issues improves my status
	rep2	Engaging in social issues improves my reputation at work
	rep3	Engaging in social issues allows me to earn respect from others at work
	rep4	Engaging in social issues increases my social standings among friends
	rep5	Engaging in social issues makes me more popular in my social circle at work
Satisfaction in Life	sat1	In most ways my life is close to my expectations
	sat2	The conditions of my life are excellent
	sat3	I am satisfied with my life
Virtual Social Skills	vss3	In virtual settings at work, I am able to put myself in other people's positions to understand their point of view
	vss4	In virtual settings at work, I am able to socialize easily
	vss5	In virtual settings at work, I am good at sensing the motivations and hidden agendas of others

Table 8.7 Factor Correlation Matrix

Factors	1	2	3	4	5	6	7	8	9
Reputation (1)	1.000								
Civic Actions (2)	.249	1.000							
Trust Propensity (3)	.224	.249	1.000						
Trust in Institutions (4)	.231	.029	.307	1.000					
Civic Expressions (5)	.246	.592	.048	-.031	1.000				
Satisfaction (6)	.184	.136	.278	.231	-.030	1.000			
Trust in Social Media (7)	.362	.217	.342	.327	.189	.215	1.000		
Virtual Social Skills (8)	.380	.308	.149	.187	.297	.281	.263	1.000	
Group Incentives (9)	.550	.302	.229	.087	.263	.214	.266	.355	1.000

Extraction Method: Maximum Likelihood.

Rotation Method: Promax with Kaiser Normalization.

8.6.2 Test of common method bias

First, multiple working adult Facebook respondents from PLCs and non-PLCs (from 96 companies and organisations) were used for data collection to minimize the threat of common method bias. Second, Harman's post hoc single-factor analysis was conducted to examine for method bias in the data. If common method variance was a serious issue, a factor analysis would generate a single factor accounting for most of the variance (Podsakoff et al., 2003). An EFA of all indicators generated nine distinct factors, and the first extracted factor explained about 22.9 per cent of the variance. These diagnostic analyses indicate that common method bias is unlikely to be an issue with the data.

8.6.3 Confirmatory Factor Analysis

A confirmatory factor analysis (CFA) was conducted to (1) validate the psychometric properties of the instrument, (2) examine whether the measurement model achieved an acceptable goodness-of-fit, and (3) investigate its unidimensionality, convergent and discriminant validity, and reliability.

The CFA stage was performed on the entire set of items simultaneously. Maximum likelihood estimations were employed for the model assessment. All the necessary steps in the measurement model validation and reliability assessments were conducted following Hair et al. (2006), Bollen (1989), Gefen et al. (2000), Bagozzi (1980) and Fornell and Larcker (1981). Figure 8.1 shows the measurement model.

8.6.3.1 Unidimensionality and Convergent Validity

Table 8.8 provides the latent constructs of the items. As seen in the table, all factor loadings in the CFA model exceeded 0.50 (Hair et al., 2006) with most of the items exhibiting high-factor loading's (above 0.70) reflecting unidimensionality and convergent validity (Bollen, 1989). All factor loadings were significant at $p = 0.001$. In addition, the average variance extracted (AVE) for each construct is much higher than the recommended minimum value of 0.50 (Fornell & Larcker, 1981). Furthermore, the composite reliability ranges from 0.815 to 0.953, exceeding 0.70 (Fornell & Larcker, 1981). All items are significantly related to their specified constructs; the data support the convergent validity of the CFA model.

8.6.3.2 Discriminant Validity

For establishing discriminant validity, the AVE estimates for each factor is compared with the squared inter-construct correlations associated with that factor (Hair et al., 2006). As shown in Table 8.9, all constructs had a stronger correlation with their own measures than with those of other constructs. All correlations between constructs were less than 0.70 and less than the square root value of the AVE. Therefore, this criterion adequately demonstrated the discriminant validity of the model.

8.6.4 Reliability

Construct (composite) reliability and AVE, which are additional measures of internal consistency, were estimated and are shown in Table 8.8. The construct reliability indicates the per cent variance in a measurement captured by the trait variance (Bagozzi, 1980). Compared with the Cronbach's alpha, which provides a lower bound estimate of the internal consistency, the construct reliability is a more rigorous estimate for the reliability (Chin & Gopal, 1995). The recommended values for establishing a tolerable reliability are above 0.70 (Werts et al., 1974, Gefen et al., 2000) and for strong reliability – above 0.80 (Koufteros, 1999). The lowest composite reliability for our model is 0.815 and all estimates of AVEs are above 0.60, which provide further evidence of the scales' reliability (Bagozzi, 1980, Fornell & Larcker, 1981, Koufteros, 1999).

Hair et al. (1998, p. 612) suggested that coefficient of determination (R^2) should exceed 0.50 although 'it is not an absolute standard'. Although the four items (dia2, coa1, coa2, ldm2 and truP1) were below 0.50, the four items were retained for two reasons: (1) they represent the definitions and content domain of the factors, and (2) the values were close to 0.50. Moreover, Hooper et al. (2008) indicated that only items with an R^2 below 0.20 should be removed to improve model fit. In addition, other reliability assessments (construct reliability, AVE and Cronbach's alpha) were above the cut off points, providing evidence of the scales' reliability. The next section discusses about the model fit.

8.6.5 Model Fit

The results of the analysis also indicated the model fit for measurement model 1. The χ^2/df was 2.431 and below the desired threshold of 3.0 (Hair et al., 2006). The root mean squared error of approximation (RMSEA) was 0.048, much below the 0.08 cut-off level (Hair et al., 2006). In addition, the normed fit index (NFI = 0.919), Tucker Lewis index (TLI = 0.942) and confirmatory fit index (CFI = 0.950) were greater than the required value of 0.90. Finally, goodness-of-fit index (GFI = 0.894) and adjusted GFI (AGFI = 0.870) were greater than the threshold of 0.80. Thus, it can be concluded that the measurement model fitted the data well.

Table 8.8 Factor loadings, R², composite reliability and AVE

Latent Variables	Items	Item Loadings	R ²	CR	AVE
Reputation (REP)	rep1	0.939	0.882	0.953	0.804
	rep2	0.939	0.882		
	rep3	0.916	0.840		
	rep4	0.874	0.764		
	rep5	0.807	0.651		
Civic expressions (CE)	poi1	0.849	0.721	0.891	0.672
	poi2	0.838	0.703		
	poi3	0.888	0.789		
	dia2	0.691	0.477		
Civic actions (CA)	coa1	0.671	0.450	0.866	0.519
	coa2	0.695	0.483		
	coa3	0.814	0.662		
	ldm1	0.749	0.560		
	ldm2	0.675	0.455		
	ldm3	0.709	0.502		
Trust in Propensity (TP)	truP1	0.689	0.475	0.898	0.639
	truP2	0.814	0.662		
	truP3	0.864	0.746		
	truP4	0.850	0.722		
	truP5	0.767	0.589		
Trust in Social Media (TS)	truS8	0.817	0.668	0.856	0.666
	truS9	0.888	0.789		
	truS10	0.736	0.542		
Trust in Institutions (TI)	truI12	0.770	0.593	0.909	0.714
	truI13	0.906	0.821		
	truI14	0.883	0.780		
	truI15	0.814	0.663		
Group Incentives (GI)	incG4	0.734	0.538	0.856	0.667
	incG5	0.754	0.569		
	incG6	0.946	0.895		
Virtual social skills (VSS)	vss3	0.769	0.591	0.815	0.595
	vss4	0.795	0.631		
	vss5	0.749	0.561		
Satisfaction in life (SAT)	sat1	0.808	0.652	0.882	0.716
	sat2	0.957	0.916		
	sat3	0.762	0.581		

Notes:

R² = coefficient of determination; CR = composite reliability; AVE = average variance extracted. All items are significant at p<0.001 (two-tailed).

Table 8.9 Mean, standard deviation and square root of the average variance extracted

Latent Variables	Mean	S.D.	SAT	CE	CA	TP	TS	TI	GI	REP	VSS
Satisfaction in life	4.752	1.136	0.846								
Civic expressions	3.422	1.385	-0.015	0.820							
Civic actions	2.767	1.221	0.129	0.646	0.721						
Trust in propensity	3.897	1.063	0.287	0.074	0.270	0.799					
Trust in social media	3.333	1.278	0.214	0.195	0.208	0.370	0.816				
Trust in institutions	3.130	1.353	0.198	-0.014	0.032	0.314	0.345	0.845			
Group incentives	4.821	1.127	0.226	0.269	0.293	0.230	0.263	0.120	0.817		
Reputation	3.998	1.316	0.185	0.251	0.261	0.222	0.359	0.221	0.654	0.896	
Virtual social skills	4.755	1.013	0.287	0.313	0.318	0.172	0.262	0.196	0.378	0.399	0.771

Note: Values in diagonal represent the square root of the average variance extracted.

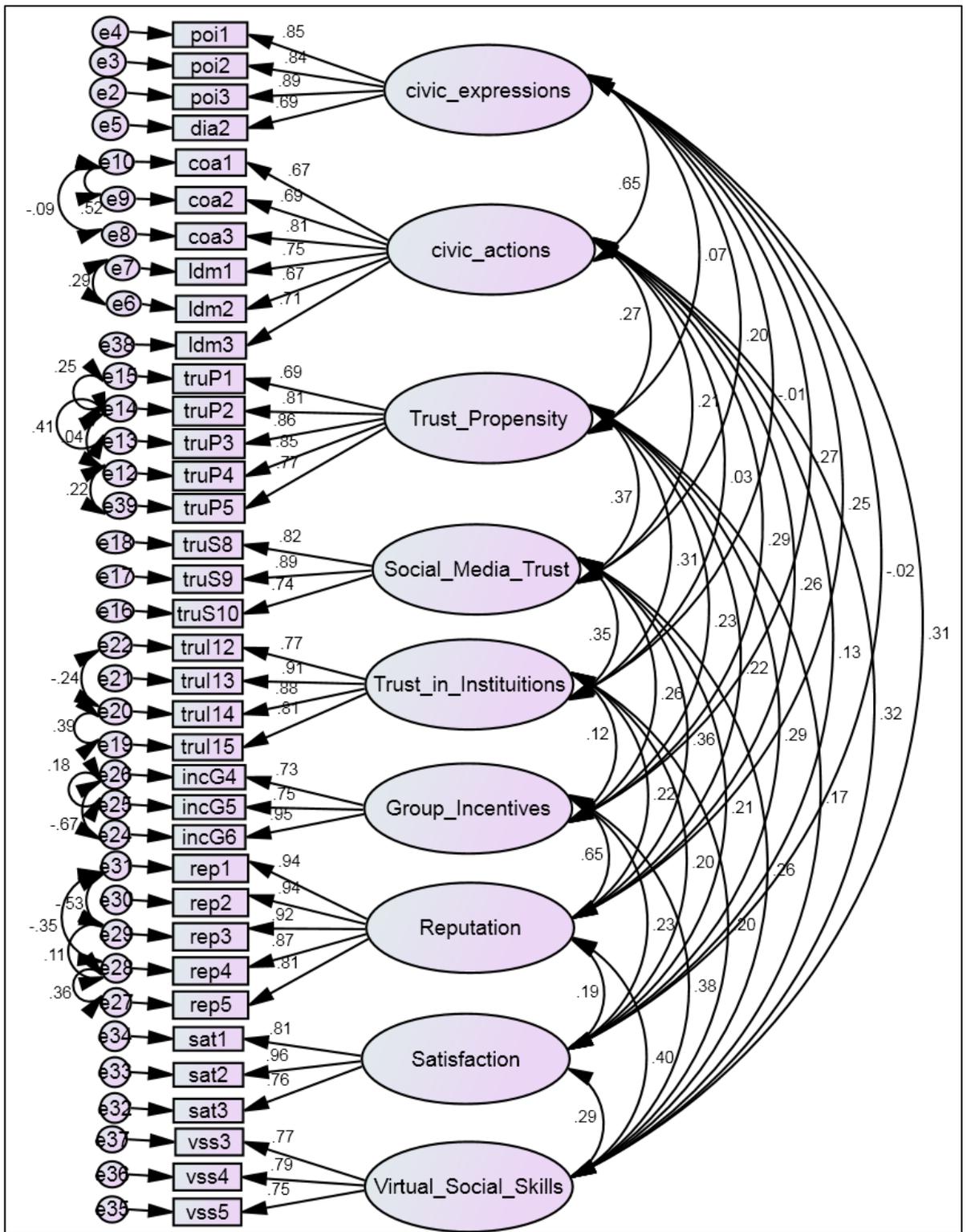


Figure 8.1 Measurement model for model 1

8.7 Test of the measurement model: Model 2

The measurement model for Model 2 includes the second-order construct, online civic engagement behaviour. Figure 8.2 depicts the measurement model for Model 2.

8.7.1 Exploratory Factor Analysis

The results for EFA for Model 2 are the same as Model 1, which was described in section 8.6.1.

8.7.2 Confirmatory Factor Analysis

The purpose of confirmatory factor analysis (CFA) and the procedure deployed is the same as section 8.6.3.

8.7.2.1 Unidimensionality and Convergent Validity

Table 8.10 provides the latent constructs of the items. As seen in the table, all factor loadings in the CFA model exceeded 0.50 (Hair et al., 2006) with most of the items exhibiting high-factor loadings (above 0.70) reflecting unidimensionality and convergent validity (Bollen, 1989). All factor loadings were significant at $p = 0.001$. In addition, the average variance extracted (AVE) for each construct is much higher than the recommended minimum value of 0.50 (Fornell & Larcker, 1981). Furthermore, the composite reliability exceeded 0.70 (Fornell & Larcker, 1981). All items are significantly related to their specified constructs; the data support the convergent validity of the CFA model.

8.7.2.2 Discriminant Validity

For establishing discriminant validity, the AVE estimates for each factor is compared with the squared inter-construct correlations associated with that factor (Hair et al., 2006). All constructs had a stronger correlation with their own measures than with those of other constructs. All correlations between constructs were less than 0.70 and less than the square root value of the AVE. Therefore, this criterion adequately demonstrated discriminant validity of the model. See Table 8.10 and Table 8.11.

8.7.3 Reliability

Composite reliability for online civic engagement was above 0.70 and the AVE was also above 0.50. Other construct values remain the same as in Model 1.

8.7.4 Model Fit

The χ^2/df was 2.460, which is slightly higher than Model 1's value but still below the desired threshold of 3.0 (Hair et al., 2006). The root mean squared error of approximation (RMSEA) was 0.049, below the 0.08 cut-off level. The normed fit index (NFI = 0.917), Tucker Lewis index (TLI = 0.941) and confirmatory fit index (CFI = 0.949) were greater than the required value of 0.90. Finally, the goodness-of-fit index (GFI = 0.891) and adjusted GFI (AGFI = 0.868) were greater than the threshold of 0.80. Thus, it can be concluded that the measurement model fitted the data well.

Table 8.10 Factor loadings, R², composite reliabilities and AVE

Latent Variables	Items	Factor Loadings	R ²	CR	AVE
Online civic engagement behaviour (Online_CEB)	-	-	-	0.788	0.650
Civic expressions (CE)	poi1	0.768	0.590		
	poi2				
	poi3				
	dia2				
Civic actions (CA)	coa1	0.843	0.710		
	coa2				
	coa3				
	ldm1				
	ldm2				
	ldm3				
Trust in Propensity (TP)	truP1	0.689	0.475	0.898	0.639
	truP2	0.816	0.666		
	truP3	0.866	0.749		
	truP4	0.849	0.720		
	truP5	0.765	0.585		
Trust in Social Media (TS)	truS8	0.817	0.668	0.856	0.666
	truS9	0.888	0.789		
	truS10	0.737	0.543		
Trust in Institutions (TI)	truI12	0.770	0.593	0.909	0.714
	truI13	0.906	0.821		
	truI14	0.883	0.780		
	truI15	0.814	0.663		
Group Incentives (GI)	incG4	0.733	0.538	0.856	0.667
	incG5	0.754	0.569		
	incG6	0.946	0.895		
Reputation (REP)	rep1	0.939	0.882	0.953	0.804
	rep2	0.939	0.882		
	rep3	0.917	0.840		
	rep4	0.874	0.764		
	rep5	0.807	0.651		
Virtual social skills (VSS)	vss3	0.767	0.588	0.815	0.595
	vss4	0.795	0.632		
	vss5	0.751	0.564		
Satisfaction in life (SAT)	sat1	0.808	0.653	0.882	0.716
	sat2	0.957	0.916		
	sat3	0.762	0.581		

Note:

SE = Standard Error; CR = composite reliability; AVE = average variance extracted.

All items are significant at p<0.001 (two-tailed).

Table 8.11 Mean, standard deviation and square root of the average variance extracted

Latent variables	Mean	S.D.	VSS	TP	TS	TI	GI	REP	SAT	OCEB
Virtual social skills	4.755	1.013	0.771							
Trust propensity	3.897	1.063	0.172	0.800						
Trust in social media	3.333	1.278	0.262	0.369	0.816					
Trust in institutions	3.130	1.353	0.196	0.313	0.345	0.845				
Group incentives	4.821	1.127	0.378	0.230	0.263	0.120	0.817			
Reputation	3.998	1.316	0.399	0.222	0.359	0.221	0.654	0.897		
Satisfaction	4.752	1.136	0.287	0.287	0.215	0.198	0.226	0.185	0.846	
Online_CEB	3.029	1.152	0.391	0.223	0.251	0.013	0.349	0.316	0.079	0.806

Notes: Values in diagonal represent the square root of the average variance extracted;

OCEB: Online civic engagement behaviour

Table 8.12 Model fit comparison for model 1 and model 2.

Item	Model 1	Model 2
χ^2/df	2.431	2.460
GFI	0.894	0.891
AGFI	0.870	0.868
CFI	0.950	0.949
TLI	0.942	0.941
NFI	0.919	0.917
RMSEA	0.048	0.049

8.7.5 Validity of the second-order construct in measurement model 2

Figure 8.2 shows the estimation of the second-order construct, online civic engagement behaviour, with other constructs. The paths from the second-order construct to the two first-order factors (civic expressions and civic actions) are significant and of high magnitude, greater than the suggested cut off of 0.70 (Chin, 1998). March and Hocever (1985) suggested that the efficacy of the second-order construct in a model be assessed by the target coefficient (T-ratio) with an upper bound of 1. This model has a very high T- ratio of 0.99, implying that the relationship among the first order constructs is sufficiently captured by the second-order construct (Stward & Segars 2002; Zhu & Kraemer, 2005). Therefore, on both theoretical and empirical grounds, the conceptualization of online civic engagement behaviour as a higher-order, multidimensional construct is justified.

8.8 Measurement model selection: Model 1

Both measurement models 1 and 2, demonstrated that the models fitted the data well with established reliability and validity. Based on the model fit for both models (Table 8.12), it appears that Model 1 suggests a better fit. In addition, Model 1 will enable the researcher to capture in more detail the aspects of online civic engagement behaviour, particularly for the two modes developed: civic expressions and civic actions. This will enable the study to proceed to test the revised research model and associated hypotheses in Chapter 7. As such, Model 1 was selected.

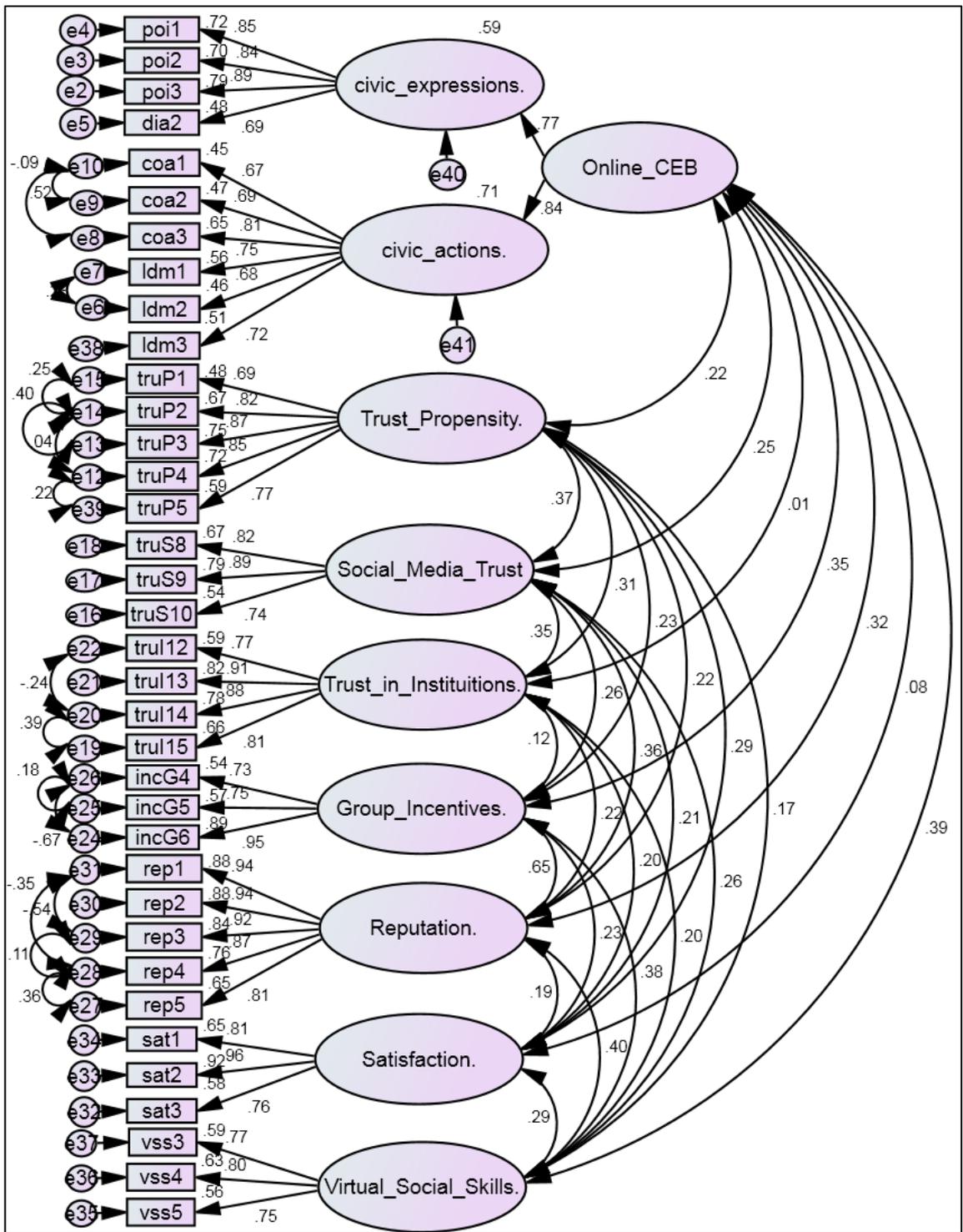


Figure 8.2 Measurement model: model 2

8.9 Structural equation modelling (SEM) analysis

This study tested the research model by structural equation modelling using the full sample of 619 respondents and based on measurement model 1. Figure 8.3 depicts the results of the SEM analysis. The results of fitting the structural model to the data indicated that the model has a reasonably good fit with almost all measures of fit in the acceptable range and above the minimum recommended values. The χ^2/df is 3.286, which is well below the minimum level of 5.0 (Wheaton et al., 1977; Hong & Thong, 2013). The root mean squared error of approximation (RMSEA) was 0.061, which is well below the 0.08 limit (Hair et al., 2006). In addition, both the Tucker Lewis index (TLI = 0.912) and confirmatory fit index (CFI = 0.922) were greater than the required value of 0.90 (Hair et al., 2006; Bentler & Bonnet, 1980). The goodness-of-fit index (GFI) was 0.876 while the adjusted GFI (AGFI = 0.851) was greater than the threshold of 0.80 (Joreskog & Sorbom, 1988). Even though the GFI was below 0.90, many researchers interpret GFI in the 0.80 to 0.89 range as representing a reasonable fit (Doll et al., 1995; Zikmund, 2003; Lee Y. et al., 2012). These values indicated that the model fits the data well. The R^2 values for civic expressions, civic actions, satisfaction in life and virtual social skills were 0.11, 0.46, 0.12 and 0.13, respectively. Although the R^2 values may not be very high, the model fits the data reasonably well for explaining online civic engagement behaviour.

8.10 Hypotheses testing

A summary of the results of the hypotheses testing is presented in Table 8.13 and Table 8.14.

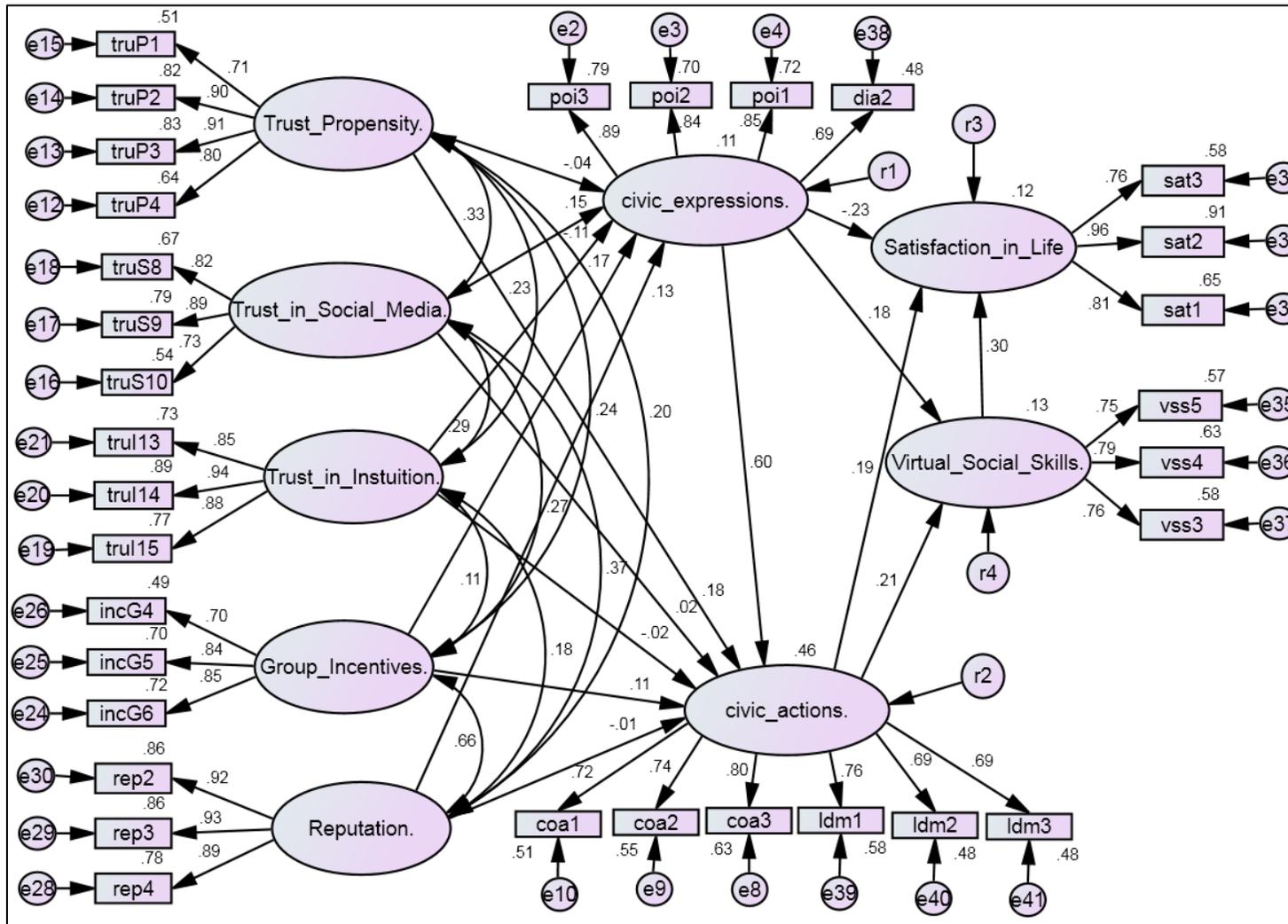


Figure 8.3 Structural model for model 1

Table 8.13 Summary of the model's hypotheses and results

Hypothesized Relationships		Std. β	S.E.	C.R.	p	Results
H1	A higher level of trust propensity is related to a higher level of participation in civic expressions.	-0.043	-0.930	0.060	0.352	Not supported
H2	A higher level of trust propensity is related to a higher level of participation in civic actions.	0.178	0.043	4.464	0.000	Supported***
H3	A higher level of trust in social media is related to a higher level of participation in civic expressions.	0.146	0.066	2.869	0.004	Supported **
H4	A higher level of trust in social media is related to a higher level of participation in civic actions.	0.018	0.046	0.412	0.68	Not supported
H5	A lower level of trust in institutions is related to a higher level of participation in civic expressions.	-0.107	0.048	-2.392	0.017	Supported*
H6	A lower level of trust in institutions is related to a higher level participation in civic actions.	-0.023	0.034	-0.598	0.550	Not supported
H7	Individuals who perceive that participation in social issues will help them gain group incentives will engage more frequently in civic expressions.	0.174	0.084	2.757	0.006	Supported**
H8	Individuals who perceive that participation in social issues will help them gain group incentives will engage more frequently in civic actions.	0.110	0.060	2.043	0.041	Supported*
H9	Individuals who perceive that participation in social issues will enhance their reputation will engage more frequently in civic expressions.	0.125	0.067	2.015	0.044	Supported*
H10	Individuals who perceive that participation in issues will enhance their reputation will engage more frequently in civic actions.	-0.006	0.047	-0.119	0.905	Not supported
H11	A higher level of participation in online civic expressions is related to a higher level of participation in online civic actions.	0.599	0.039	12.863	0.000	Supported***
H12	A higher level of participation in online civic expressions is related to a higher level of satisfaction in life.	-0.234	0.042	-3.887	0.000	Significant*** but negative direction
H13	A higher level of participation in online civic expressions is related to a higher level of virtual social skills.	0.184	0.041	2.940	0.003	Supported**
H14	A higher level of participation in online civic actions is related to a higher level of satisfaction in life.	0.194	0.051	3.168	0.002	Supported**
H15	A higher level of online civic actions is related to a higher level of virtual social skills	0.207	0.050	3.230	0.001	Supported***
H16	A higher level of virtual social skills is related to a higher level of satisfaction in life.	0.299	0.054	5.891	0.000	Supported***

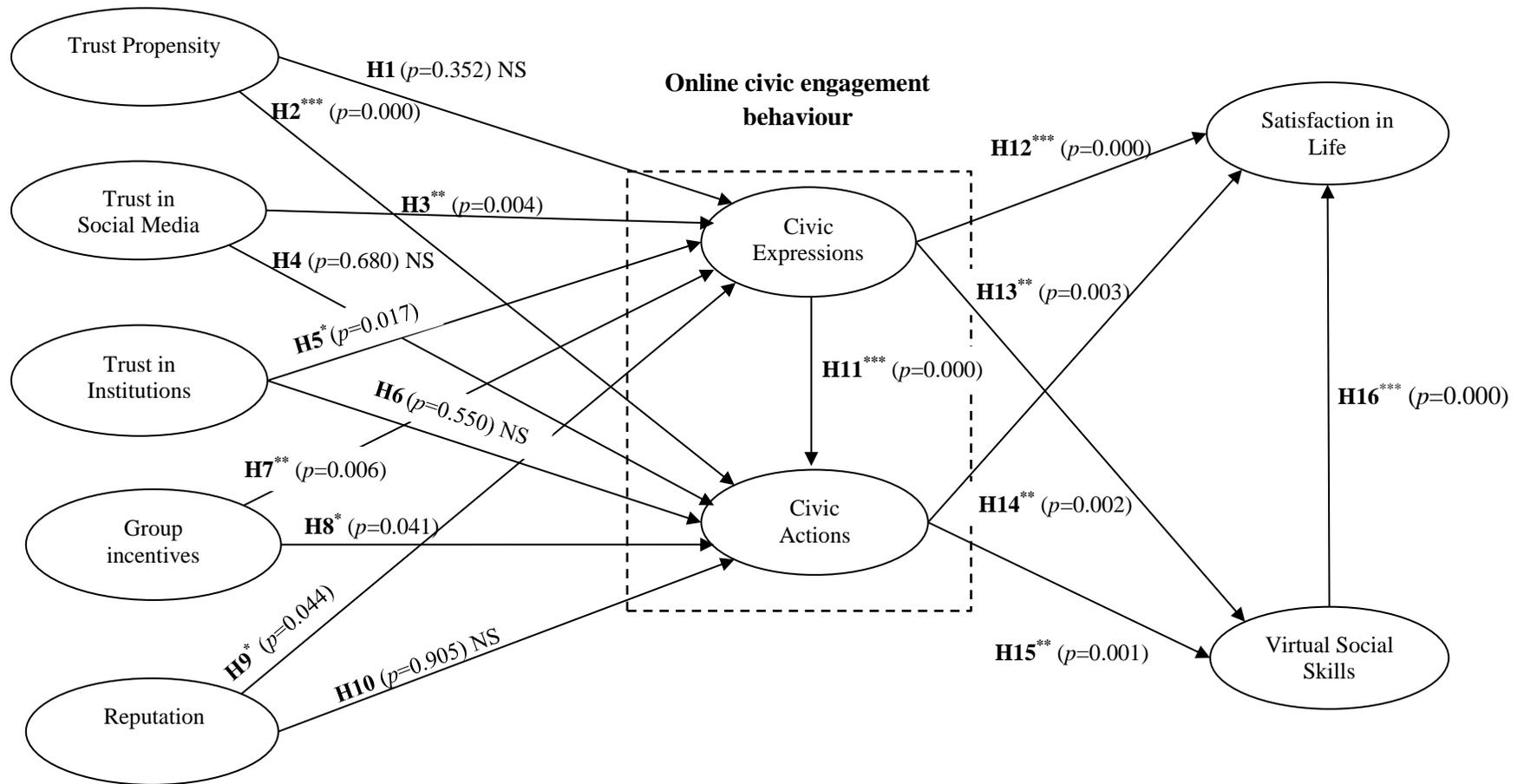
Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Std. β : Standardized regression weights, S.E.: Standard error, C.R.: Critical ratio, p: p-value.

Table 8.14 Mediating results for civic expressions as a mediator

Hypothesized Relationships		Direct Without Mediator (p-value)	Direct With Mediator (p-value)	Indirect (p-value)	Mediation Type Observed	Results
H17	The effects of trust propensity on satisfaction in life will be mediated by civic expressions. Trust propensity → Civic express. → Sat.	0.158 (0.001)***	0.113 (0.016)*	0.038 (0.000)***	Partial	Partially supported.
H18	The effects of trust in social media on satisfaction in life will be mediated by civic expressions. Trust in social media → Civic express. → Sat.	0.078 (0.079) NS	0.093 (0.050)NS	-0.019 (0.012)*	Indirect effect	Partially supported.
H19	The effects of trust in institutions on satisfaction in life will be mediated by civic expressions. Trust in institutions → Civic express. → Sat.	0.101 (0.013)*	0.093 (0.036)*	0.012 (0.109) NS	None	Not supported.
H20	The effects of trust propensity on satisfaction in life will be mediated by civic actions. Trust propensity → Civic actions → Sat.	0.158 (0.001)***	0.102 (0.016)*	0.039 (0.001) **	Partial	Partially supported
H21	The effects of trust in social media on satisfaction in life will be mediated by civic actions. Trust in social media → Civic actions → Sat.	0.078 (0.079) NS	0.092 (0.050)*	0.002 (0.698) NS	None	Not supported
H22	The effects of trust in institutions on satisfaction in life will be mediated by civic actions. Trust in institutions → Civic actions → Sat.	0.101 (0.013)*	0.069 (0.037)*	-.0004 (0.470) NS	None	Not supported

Note: *p<0.05; **p<0.01; ***p< 0.001;
Sat: Satisfaction; Med: Mediation



Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$; NS: Not significant

Figure 8.4 Online civic engagement model with tested hypotheses results

8.11 Hypotheses Results

8.11.1 Results for H1-H16

Hypothesis 1 (H1) posits that higher levels of trust propensity are related to higher levels of participation in civic expressions. The standardised path coefficient (Std. β) was -0.043, which was negative and not statistically significant (p-value = 0.352). Therefore, the results do not provide support for Hypothesis 1. Trust propensity has no significant impact on online civic engagement behaviour in terms of civic expressions. Similarly, Hypotheses 4, 6 and 10 were not supported as their p-values were greater than 0.05 (See Table 8.13).

Hypothesis 2 (H2) posits that greater trust propensity will lead to higher levels of Facebook usage for civic actions. The standardised path coefficient (0.178) was positive and statistically significant (p-value = 0.000). The results provide a positive directional support for H2. This indicates that trust propensity leads to higher participation in civic action on Facebook. In a similar vein, the results suggested that a higher level of trust in social media is related to higher levels of participation in civic expressions (Std. β = 0.146, p-value = 0.004). Hence, supporting H3. Trust in institutions was significant (p-value = 0.017) but in a negative direction with civic expressions (Std. β = -0.107). As such, the statistical results is significant for H5 but in a negative direction.

Hypotheses 7 and 8 had positive standardised path coefficients and were significant with p-values less than 0.05. This indicates that individuals who perceive that participation in social issues will help them gain group incentives will participate more frequently in civic actions and civic expressions. However, reputation was found to only have a positive and significant effect on civic expressions (Std. β = 0.125, p-value = 0.044) and no significant impact on civic actions (p-value = 0.905). Thus, the results

supported H9 and did not provide support for H10. There was positive and significant support for H11, which posited that a higher level of participation in online civic expressions is related to a higher level of participation in online civic actions. The standardised path coefficient was 0.599 and p-value was 0.000.

Hypothesis 12 posited that a higher level of participation in online civic expressions affects the level of satisfaction in life in a positive manner. However, the results provided a negative direction but a statistically significant finding for H12 (Std. β = -0.234, p-value = 0.000). The statistical results further indicated that a higher level of participation in online civic expressions was related to a higher level of virtual social skills. The results provided a significant and positive directional support for H13 (Std. β = 0.184, p-value = 0.003). The findings from the statistical analysis also indicated that a higher level of participation in online civic actions is related to a higher level of satisfaction in life and virtual social skills, respectively. Thus, supporting H14 (Std. β = 0.194, p-value = 0.002) and H15 (Std. β = 0.207, p-value = 0.001). Hypothesis 16 posited that a higher level of virtual social skills is related to a higher level of satisfaction in life. The results provide statistical support for H16 (Std. β = 0.299, p-value = 0.000).

8.11.2 Mediating results (H17-H22)

A bootstrapping analysis with 2,000 re-samples and a 95 per cent Confidence Interval (CI) was used for testing the significance of the indirect path coefficients for the mediation hypotheses. This study applied the mediation analysis by Baron and Kenny (1986) using AMOS. Table 8.14 provides a summary of the significant direct effects without mediation, the significant direct effects with mediation, the significant indirect effects, the mediation results and the hypotheses findings.

The mediation effect of civic concerns was tested using alternative models. For example, to test whether trust propensity significantly affects satisfaction in life (dependent variable) in the absence of the mediator, the first alternative model excluded civic expressions (mediator). This model resulted in a coefficient between trust propensity and the dependent variable of 0.158 at $p < 0.001$. With the mediator, civic expressions, the strength of the relationship between trust propensity and satisfaction in life reduced by 0.045 but remained significant at $p < 0.05$. The indirect effect analysis also resulted in a significant level at $p < 0.0001$. Thus, the relationship between trust propensity and satisfaction in life attenuated when civic expressions were incorporated in the model, establishing support for partial mediation. In another similar but different test, the results suggested that civic expressions had an indirect effect between trust in social media and satisfaction in life. The findings also indicated that civic actions partially mediated the relationship between trust propensity and satisfaction in life. On the other hand, civic expressions had no mediating effect on trust in institutions and satisfaction in life. Similar non mediating effects were found for civic actions on trust in social media, trust in institutions and satisfaction in life. See Table 8.14.

8.12 Chapter summary

The major outcome of Phase 4 was the survey data capturing the perceptions of 619 working adult social media concerning the factors that influence online civic engagement behaviour, their actual use of Facebook for civic efforts and their perceptions on life satisfaction and virtual social skills. The survey data were used to empirically test the research model and hypotheses. The results are summarized in Table 8.15.

Table 8.15 Summary of survey analysis

No.	Item	
1.	Full length questionnaire pilot test	
	Tests	Results
	Reliability	Ranged from 0.810 to 0.951, adequate reliability (Nunnally, 1978).
	Mechanics and length.	Adequate .
2.	Data screening	
	Items/Assumptions	Results
	Response rate	960 surveys were distributed. A total of 638 employees responded, resulting in a response rate of 66.5 per cent.
	Missing data and data consistency check	After removing cases of missing data and cases where all responses for the construct items were in the same values, 620 cases remained usable.
	Outliers	After removing for outliers, 619 cases were usable.
	Normality	All items for skewness and kurtosis fall within the acceptable standard range of +1.96 and – 1.96 at the 0.05 error level 5 (Hair et al., 2006). Data can be assumed to be normal.
	Linearity	Removed item tru11. ANOVA test of linearity and the OLS tests indicated that the IV and DV relationships can be assumed to be sufficiently linear.
	Homoscedasticity	Scatterplots suggested a presence of equal variances among the data.
	Multicollinearity	VIFs < 3, indicating no seriousness in multicollinearity.
3.	Demographic results – tabulated in Table 8.2.	
4.	Measurement Model 1 (First-level constructs)	
	Tests	Results
	EFA	<ul style="list-style-type: none"> • KMO=0.868, which is meritorious. • Resulted in 9 factors accounting for 68.27 per cent of variance in the data (trust in propensity, trust in social media, trust in institutions, group incentives, reputation, civic expressions, civic actions, satisfaction in life and virtual social skills). • Cronbach's alpha ranged from 0.814 to 0.952, adequate reliability. • Harman's post hoc single-factor analysis indicated common method bias unlikely to be present.
	CFA : Validity (convergent and discriminant)	<ul style="list-style-type: none"> • All factor loadings in the CFA model were signification at $p = 0.001$. and > 0.5 (Hair et al., 1995) indicating convergent validity, mostly > 0.70 reflecting unidimensionality and convergent validity (Bollen, 1989). • AVE > 0.50 (Fornell & Larcker, 1981). • All constructs had a stronger correlation with their own measures than with those of other constructs. • All correlations between constructs were < 0.7 and less than the square root value of the AVE. Therefore, demonstrated discriminant validity of the model.
	CFA : Reliability	Composite reliability ranges from 0.815 to 0.953, exceeding 0.7 (Fornell & Larcker 1981), adequate reliability.
Model fit	Based on Hair et al. (2006): $\chi^2/df = 2.431, < 3.0$ RMSEA=0.048, < 0.08 NFI = 0.919; TLI = 0.942 and CFI = 0.950, > 0.90 AGFI = 0. 0.870, > 0.80 (Joreskog & Sorbom, 1988; Hair et al., 2006). GFI = 0.894, > 0.80 (Doll et al., 1995; Zikmund; 2003; Lee Y. et al., 2012).	

Table 8.15, continued

5.	Measurement Model 2 (includes online civic engagement behaviour as a 2nd order construct)										
	Tests	Results									
	EFA	Same as Model 1.									
	CFA : Validity (convergent and discriminant)	<ul style="list-style-type: none"> All factor loadings in the CFA model were significant at $p = 0.001$ and > 0.50 (Hair et al., 2006) indicating convergent validity, mostly > 0.70 reflecting unidimensionality and convergent validity (Bollen, 1989). AVE > 0.50 (Fornell & Larcker, 1981). All constructs had a stronger correlation with their own measures than with those of other constructs. All correlations between constructs were < 0.7 and less than the square root value of the AVE. Therefore, demonstrated discriminant validity of the model. 									
	CFA : Reliability	Composite reliability for online civic engagement was > 0.70 and AVE, above 0.50. Other construct values were the same as in Model 1.									
	Model fit	Based on Hair et al. (2006): $\chi^2/df = 2.460, < 3.0$ RMSEA=0.049, < 0.08 NFI = 0.917; TLI = 0.941 and CFI = 0.949, > 0.90 AGFI = 0.868, > 0.80 (Joreskog & Sorbom, 1988; Hair et al., 2006). GFI = 0.891, > 0.80 (Doll et al., 1995; Zikmund; 2003; Lee Y. et al., 2011).									
Measurement model selection	Based on model results, measurement model 1 was selected to test the revised research model and associated hypotheses.										
6.	Structural Equation Model (SEM) Analysis										
	Tests	Results									
	Model fit	$\chi^2/df = 3.286, < 5.0$ (Wheaton et al., 1977; Hong & Thong, 2013) RMSEA=0.061, < 0.08 (Hair et al., 2006). TLI = 0.912 and CFI = 0.949, > 0.90 (Hair et al., 2006; Bentler & Bonnet, 1980). GFI = 0.876 (Doll et al., 1995; Zikmund, 2003; Lee, Y. et al, 2012). AGFI = 0.851, > 0.80 (Joreskog & Sorbom, 1988). R ² values: <table border="1"> <thead> <tr> <th>Constructs</th> <th>R²</th> </tr> </thead> <tbody> <tr> <td>civic expressions</td> <td>0.11</td> </tr> <tr> <td>civic actions</td> <td>0.46</td> </tr> <tr> <td>satisfaction in life</td> <td>0.12</td> </tr> <tr> <td>virtual social skills</td> <td>0.13</td> </tr> </tbody> </table> <p>The overall values obtained from the SEM analysis indicated that the model fits the data well.</p>	Constructs	R ²	civic expressions	0.11	civic actions	0.46	satisfaction in life	0.12	virtual social skills
Constructs	R ²										
civic expressions	0.11										
civic actions	0.46										
satisfaction in life	0.12										
virtual social skills	0.13										
Hypotheses results	The results are tabulated in Tables 8.13 and 8.14.										

CHAPTER 9 - DISCUSSIONS AND CONCLUSIONS

9.1 Research aims and overview of the key findings

The literature review in Chapter 2 indicated that a considerable number of civic engagement studies in social media have focused on political perspectives (see for example Donnelly-Smith, 2008; Baumgartner & Morris, 2010; Bennett et al., 2011; Boyd et al., 2011; Ferguson & Garza, 2011; Conroy et al., 2012; Gibson & McAllister, 2012; Valenzuela et al., 2012; Park, 2013). The review also noted that the phenomena of social media is somewhat lacking and needs to be understood further (Ellison et al., 2007; Steinfield et al., 2008; de Zuniga, 2012; Gil de Zuniga et al., 2012), particularly in examining the use social media for civic engagement (Pasek et al., 2009; Valenzuela et al., 2009; Valenzuela, 2013).

The methods suggested in past studies included using a qualitative approach to tap into activists' perceptions and the use of social media for participatory behaviour (Harp et al., 2012). Many studies were also found to explore the use of social media as a single dimension as opposed to the different modes of use for civic engagement (see for example Valkenburg & Schouten, 2006; Ellison et al., 2007; Steinfield et al., 2008; Glynn et al., Correa et al., 2010; Gil de Zuniga et al., 2012). This has neglected the importance and opportunity to reveal the communication process involved in people's civic attitudes and behaviours. This is an important aspect to investigate because such process allows citizens to 'exchange information, elaborate on problems facing the community and learn about opportunities to participate in civic activities' (Gastil & Dillard, 1999; McLeod et al., 1999; Klofstad, 2007; Rojas et al., 2005 quoted in Gil de Zuniga et al., 2012, p.322). In addition, richer measures of the various uses of social media have been recommended to be developed (Correa et al., 2010).

The present research provides a response to these criticisms and recommendations by first, operationalizing civic engagement in accordance with the definition of a group of civic scholars (Putnam, 2000; Shah et al., 2001; Hay, 2007; Raynoles & Walker, 2008) as any activity involved in addressing social issues. This expands the notion of civic engagement as opposed to limiting it to political issues. Social issues are wide, and, therefore, this study focuses on the three prevalent problems. Phase 1 identified the major three prevalent social problems in the country by interviewing thirteen social activists. Two interviewees were public figures in the country while another four were renowned national activists. The details of the interviewees are listed in Chapter 5.

Next, the research addressed the need for a deeper understanding of online civic engagement by exploring how these activists deploy social media for addressing social issues. The study adopted the recommendation by Harp et al. (2012) and deployed qualitative approaches to address this need: interviews (Phase 1) and web analysis of the social media sites associated with the activists (Phase 2). These two phases identified the modes of online civic engagement behaviour, which addresses the issue of oversimplification of social media usage as a single dimension. The findings further assisted in the development of the measures for the different modes of social media use for civic engagement in Phase 3. This aspect adopts the recommendation by Correa et al. (2010) for a richer measure on the different patterns of social media use. Phase 4 provided a deeper insight into the phenomenon of online civic engagement behaviour using Facebook. In particular, on its influences and effects on satisfaction in life and virtual social skills, addressing the gaps highlighted in Chapter 3. The statistical analyses in Phase 4 provided answers to the hypotheses and validated the research model developed for this study. The summary of objectives, methods and findings are tabulated in Table 9.1.

Table 9.1 Summary of objectives, methods and findings.

Research Questions (RQ)	Objectives	Findings	
RQ1. How are social media users engaging in online civic engagement behaviour?	1. To explore social media users', in particular, activists' online civic engagement behaviour.	<p><u>Findings from interviews with social activists and web analysis:</u> Five modes of online civic engagement behaviour: collection of information, publication of information, dialogue, coordination of actions and lobbying decision makers.</p> <p><u>Findings from statistical analysis:</u> Statistical analysis (EFA and CFA) revealed two modes of online civic engagement behaviour: civic expressions and civic actions.</p>	
Research Questions (RQ)	Objectives	Hypotheses	Findings
RQ2. What are the factors that influence online civic engagement behaviour?	2. To determine the factors that influence online civic engagement behaviour among social media users.	H1: A higher level of trust propensity is related to a higher level of participation in civic expressions.	Not supported
		H2: A higher level of trust propensity is related to a higher level of participation to in civic actions.	Supported
		H3: A higher level of trust in social media is related to a higher level of participation in civic expressions.	Supported
		H4: A higher level of trust in social media is related to a higher level of participation in civic actions.	Not supported
		H5: A lower level of trust in institutions is related to a higher level participation in civic expressions.	Supported
		H6: A lower level of trust in institutions is related to a higher level participation in civic actions.	Not supported
		H7: Individuals who perceive that participation in social issues will help them gain group incentives will engage more frequently in civic expressions.	Supported
		H8: Individuals who perceive that participation in social issues will help them gain group incentives will engage more frequently in civic actions.	Supported
		H9: Individuals who perceive that participation in social issues will enhance their reputation will engage more frequently in civic expressions.	Supported
		H10: Individuals who perceive that participation in issues will enhance their reputation will engage more frequently in civic actions.	Not supported

Table 9.1, continued

Research Questions (RQ)	Objectives	Findings from statistical analysis	
RQ2. What are the factors that influence online civic engagement behaviour? (continued)	3. To examine the level of social media usage for civic engagement among social media users.	The mean usage of Facebook for civic expressions is 3.42. The mean usage of Facebook for civic actions is 2.77.	
		Hypotheses	Findings
RQ3. What is the impact of online civic engagement behaviour a) on satisfaction in life and virtual social skills?	4. To investigate the impact of online civic engagement behaviour on life satisfaction.	H12: A higher level of participation in online civic expressions is related to a higher level of satisfaction in life.	Significant relationship but in a negative direction.
		H14: A higher level of participation in online civic actions is related to a higher level of satisfaction in life.	Supported
	5. To investigate the impact of online civic engagement behaviour on virtual social skills.	H13: A higher level of participation in online civic expressions is related to a higher level of virtual social skills.	Supported
		H15: A higher level of online civic actions is related to a higher level of virtual social skills.	Supported
b) as a mediator between trust factors and satisfaction in life?	6. To examine the mediating role of online civic engagement behaviour on a) trust propensity and satisfaction in life. b) trust in social media and satisfaction in life. c) trust in institutions and satisfaction in life.	H17: The effects of trust propensity on satisfaction in life will be mediated by civic expressions.	Partially supported
		H18: The effects of trust in social media on satisfaction in life will be mediated by civic expressions.	Partially supported
		H19: The effects of trust in institutions on satisfaction in life will be mediated by civic expressions.	Not supported
		H20: The effects of trust propensity on satisfaction in life will be mediated by civic actions.	Partially supported
		H21: The effects of trust in social media on satisfaction in life will be mediated by civic actions.	Not supported
		H22: The effects of trust in institutions on satisfaction in life will be mediated by civic actions.	Not supported
RQ4. What is the impact of virtual social skills on satisfaction in life?	7. To examine the impact of virtual social skills on satisfaction in life.	H16: A higher level of virtual social skills is related to a higher level of satisfaction in life.	Supported

9.1.1 Responses to the objectives with the findings

Objective 1: To explore social media users', in particular, activists' online civic engagement behaviour

Findings: Social activists are engaging in online civic engagement behaviour by addressing social issues using social media in five modes: (1) collection of information, (2) publication of information, (3) dialogue, (4) coordination of action, and (5) lobbying decision makers. Statistical analysis revealed that four modes overlapped which led to online civic engagement behaviour being simplified into civic expressions and civic actions.

The research addressed Objective 1 by examining the involvement of the activists in one type of civic engagement: the use of social media to address social problems. From the two exploratory investigations (i.e. Phases 1 and 2), the review of the social media and civic engagement literature, five key modes were identified as being salient to online civic engagement behaviour. The five modes reflect the ways social media have been used in addressing social issues. These five modes are: (1) collection of information, (2) publication of information, (3) dialogue, (4) coordination of action and (5) lobbying decision makers. These modes of online civic engagement behaviour are in line with Denning's (2000) qualitative work on Internet activism modes of communication. Findings from Phase 2 provided clarification and expansion of the social issues and civic communication modes identified in Phase 1. In particular, Phase 2 demonstrated the use of Facebook to call for public attention to raise awareness on issues and give support by acting on it. The interviews and observations on the web analysis also revealed that Facebook allows diverse views across all citizens of different ethnicity.

The statistical analysis in Phases 3 and 4 revealed that online civic engagement behaviour encompasses two modes: civic expressions (combination of publication of information and dialogue) and civic actions (coordination of action and lobbying decision makers). The findings confirm the indications of past literature that online civic efforts do overlap in the modes identified (see Table 2.3). The results from Phase 4 indicated that social media users are addressing the prevalent social problems (crime, disengagement from civic matters and moral values, and quality of education) using Facebook in two modes: civic expressions and civic actions.

The findings from the interviews and web analysis suggests that individuals use social media, in particular, Facebook as a medium to transmit pertinent information of their own experiences on crime, dealings with the police, their fear of crime and related topics. Moreover, online conversations were blend with offline participatory activities because comments on wall posts often refer to group organizational civic activities, meetings, and active involvement in campaigns by tabling, advocating or acquiring signatures through petitions. One could argue, therefore, that the online community becomes a real community outside the Facebook medium.

In addition to the civic interaction on the walls of Facebook, this social media site is a popular venue for individuals to promote other online resources, such as Web links, which confirms the media-related interactive potential of such SNSs (Stromer-Galley & Foot, 2002) and depicts the practice known as ‘audience gatekeeping’ (Shoemaker & Vos, 2009, p.113) by recirculating online content (see section 2.7.2 for definition). Although the researcher did not code for the Web link content, but in general, many of such links sent the readers to comments, Web sites, videos and articles on social issue content. Examples of such postings of links are in Chapter 6. These links may lead

readers to various sources of information they had not considered before, increasing their civic knowledge and being aware of such social issues. Moreover, such cross site referencing from the links helps to sustain the use of social media for civic engagement efforts.

Overall, the examination of the online civic efforts indicated that citizens are advocating for issues via the network capital powered by social media, particularly Facebook. They form an online community that supports and educates their online audience with similar intentions for the good of the community. The findings reinforce the works of scholars that indicated that social media is taking a role in defining areas for civic engagement (see for example Raynes-Goldie & Walker, 2008; Thackeray & Hunter, 2010; Zuniga et al., 2012; Valenzuela, 2013). More importantly, this study offers reflections and insights concerning of how social problems are incorporated into Facebook in different civic modes, an aspect which, to date has attracted very limited research.

Familiarizing ourselves with social media, and how it is being used positively, will enable a rich 'transactional space' (Erstad et al., 2007 quoted in Greenhow & Robelia, 2009, p.136) to be created, wherein citizens and authorities can jointly work towards eradicating social problems. It denotes an opportunity for relevant governmental and non-governmental agencies to incorporate the usage of Facebook in their daily tasks in addressing social problems. With the possibility of capturing wide attention, policymakers would also need to consider how to allow and ensure a diversity of views on social issues in a peaceful manner and be responsive in patrolling social media sites to provide public-authority engagement.

Objective 2: To determine the factors that influence online civic engagement behaviour among social media users.

Findings: Social media can contribute to mobilize citizens to participate in online civic engagement via the ability of certain trust and benefit factors.

The study has shown that social media have the potential and the ability to promote online civic participatory behaviour. This is consistent with other studies (Raynes-Goldie & Walker, 2008; Mandarano et al., 2010; Bennett et al. 2011; Valenzuela et al., 2012; Zuniga et al., 2012; Valenzuela, 2013). This study, however, delivers two contrasting, yet not necessarily conflicting, conclusions.

First, the general impression conveyed by the mean values in Table 8.13 is that online civic actions do lag behind the civic expressions forms of activity, suggesting that these low effort civic attempts are considered incapable of furthering the real goals effectively. It appears that these users are somewhat seen as slacktivists, unwilling to ‘get their hands dirty’ and do the effort required to actually achieve the mission of the social cause and the objectives in addressing the social issues, as suggested by Christensen (2011).

On the other hand, the study also indicates that online civic behaviours are present and that social media (as a civic communication channel) facilitates citizens to be included in civic participatory activities. With a pre-existing interest in social issues, receiving e-stimuli from civic related socialization from social media increases the likelihood of a civic action, such as organisational contacting or forming online coalition groups with similar interests for further action. This stance was made evident by the Pew Research Center (Rainie et al., 2011) that links Internet use and civic engagement. Its results

show that social media users, as a group, are even more likely to be joiners of civic efforts than general Internet users, with 82 per cent of social network users and 85 per cent of Twitter users citing their participation in groups. In a similar vein, another study found that youth involved in online communities were more likely to volunteer, do charity work, and get involved in community issues (Kahne et al., 2012). In this sense, this study's results portray the presence of such an effect. These findings are in direct opposition to the arguments that digital civic efforts breeds apathy by authors, such as Shulman (2009) and Gladwell (2010).

More importantly in this research, the findings suggest that online civic expressions are a strong and significant predictor in soliciting citizens to plan and engage in civic actions addressing the prevalent social issues. The findings support the idea that there is a new set of resources coming to the fore in the sphere of an 'e-viral civility', which is social media-specific. Postings get shared immediately and can multiply by the hundreds or thousands within minutes due the network capability of social media. Such instances have been revealed in the qualitative findings. Moreover, online expressions of social issue concerns heightened awareness and the effect ripples on to actions.

In support of previous research (Kwak et al., 2004; Kim 2007; Xu & Chow, 2010), trust propensity was found to significantly influence online civic actions. Contrary to the study's expectation, trust propensity did not have a significant impact on online civic expressions. This outcome suggests that expressing concerns and venting frustrations on social problems need not take into consideration the tendency of whether people were trustworthy. One explanation could be that the social problems were already associated with the lack of trust in people. In this sense, trust was already seen as a problem. So it would only be logical that there would be no trust to begin with. Another possible

explanation is that trust is not crucial on an informal platform such as Facebook. The interactions appear to be less risky. Coleman (1990) argued that only in risky situations do people need trust. Other possible explanation may be that users are willing to share their experiences and discuss about issues due to the close and frequent interaction among members, without necessarily needing to trust others (Chiu et al., 2006).

Trust in institutions was significant but in a negative direction with civic expression. This finding supports recent events in which citizens who lack trust in institutions were actively involved in activism (Pattie et al., 2003; Ali A., 2011 & Choudhary et al., 2012). In this context, participants who lacked trust in the police, politicians and justice systems were more likely to engage in civic expressions by posting articles for justice, complaints about corruption and hold discussions on the problems to educate and inform the public. The results of the interviews and web analysis echoed the survey result for this finding. Examples were depicted in Chapters 5 and 6. Surprisingly, lower levels of trust in institutions had no significant impact on the level of civic actions. This result could be due to the same explanation previously mentioned, that the social problems were associated with the lack of trust in institutions. From the interview findings, there seems to be a sense of police-public disengagement and a lack of trust in the police carrying out their duties responsibly. The activists believe that the lackadaisical attitude by the politicians, police and justice system are due to corruption, which has immobilised these institutions. In this sense, trust in institutions is part of the social problem.

On a different note, a higher level of trust in social media was found to be related to a higher level of participation in civic expressions. The results support the notion that trust in the Internet is an important condition for online participatory behaviour or

online transactions, as indicated by past IS literature (Lee & Turban, 2001; Cheung & Lee, 2002; McKnight et al. 2002; Pavlou & Gefan, 2004 Dinev & Hart, 2006; Bülbül, 2013; Nicolaou, 2013). In a similar vein, it provides evidence to concur with the idea of trust-transference logic (Doney & Cannon, 1997; Stewart, 2003). The belief that Facebook is a secure, reliable and safe social media platform to disclose information and that information will be handled in a competent fashion will allow positive perceptions to manifest in the users' minds as a willingness to accept Facebook as a way of addressing social issues. Similarly, such confidence will increase the willingness of Facebook users to share opinions and concerns on social problems. The findings also suggest that while trust in social media or the Internet could be necessary in online participatory behaviour it is not a sufficient condition for online civic actions to take place on Facebook. In this sense, the outcome from Hypothesis 4 supports the findings by Kim and Prabhakar (2004), which revealed that trust could be a necessary but not a sufficient condition for the online participatory behaviour. On a similar note, it links back to the findings of Corbitt, Thanasankit and Yi (2003) that a higher level of trust in technology will not necessarily correlate to a reduced level of risk perception, thus leading to lower levels of online participatory behaviour. Other factors such as the users' experiences online may have a stronger influence towards online participation than trust (Corbitt et al., 2003).

In addition, the findings exhibit that citizens intend to constrain social problems for collective benefit as group incentives were found to be significant predictors for both types of online civic engagement behaviour (see Figure 8.4 or Table 9.1). This supports the idea of group incentives and system benefits by Pattie et al. (2003). The statistical results suggested that individuals who perceive that participation in social issues will help them gain group incentives engaged more frequently in both civic expressions and

civic actions on Facebook. The results support the notion that people are more likely to be influenced by the benefits they obtain for themselves and their family, the groups they care about, the attachment they have to an issue and/or the sense of duty, obligation to others (Olson, 1965; Seyd & Whiteley, 1992; Cheung & Chan, 2000, Pattie et al., 2003). The findings of this study also concur with the scholars who argue that individuals that have a sense of obligation or commitment to the electronic network are likely to participate in an online network of practice in addressing issues (Constant et al., 1996; McLure Wasko & Faraj, 2000). In other words, the more individuals think participation might benefit groups they feel close to, the more likely they will participate in addressing social problems on Facebook. Such online civic engagement behaviours were spurred by the hope of achieving benefits, such as safety, justice and fairness for the group or community involved. Examples from the web analysis resonate this finding. Another reason could also be that not participating in such activities may cut off a valuable resource or knowledge flows from their social circles and may reduce their efficacy (Anand et al., 2002).

In this study, reputation played a role in influencing individuals to engage in civic expressions with regard to the prevalent social problems on Facebook. This finding supports the notion that reputation encourages online participatory behaviour or content contribution in online networks, as indicated in the findings of past literature (Donath, 1999; Wasko & Faraj, 2005; Bretzke & Vassileva, 2003; Sun & Vassileva, 2006; Farzan et al., 2008; Tang et al., 2012). Moreover, the results provide support for the explanation by Dinas and Gementis (2013) that intangible benefits often involve psychological gains stemming from civic efforts. The findings also compliments Polletta and Jasper's (2001, p.290) argument that being an activist becomes a 'prized social identity', which supplies the 'incentive to participate'. Interestingly, reputation

seems to discourage online civic actions. One explanation could be that individuals do not leverage the importance of personal reputation on networks that are informal and are less likely to punish the misbehaviour of its members. In such instances, these users may view that their contributions are being less valued and appreciated. Thus, they may only view Facebook as a connecting platform with others for entertainment and keeping contacts rather than engaging in civic actions to build their reputation. On a different perspective, individuals who engage in online civic actions in addressing social problems irrespective of reputation imply an altruistic aspect of these participants.

Objective 3: To examine the level of social media usage for civic engagement among social media users.

Finding: Online civic expressions influence civic actions on Facebook.

Online civic expressions were found to intensify the participation level of online civic actions on Facebook. This finding resonates the notion that when individuals talk about civic affairs, they are more likely to mobilize and engage in civic activities (Lazarsfeld et al., 1944). Some of the analysis from the qualitative work of Chapter 6 echoes these findings (individuals discuss and further engage in some plan for action). The results also support the notion that allowing individuals to manage issues, ‘grapple with ideas, elaborate arguments, reflect on the information acquired’, and have dialogues are a rich form of civic information, particularly on social matters (Huckfeldt & Sprague, 1995; Schmitt-Beck, 2008, quoted in Valenzuela, 2013, p. 924). Thus, such online discussions can lower the costs of civic learning and motivate individuals to participate and join social causes more often (Valenzuela, 2013).

Objective 4: To investigate the impact of online civic engagement behaviour on life satisfaction.

Findings: Online civic actions produce happy citizens and employees; online civic expressions decrease citizens' satisfaction in life.

The analysis suggests that online civic actions have a positive and significant impact on the happiness of working citizens, supporting the findings by previous scholars who declared the positive effects of using social media (Valkenburg et al., 2006; Ellison et al., 2007; Baker & Moore, 2008; Steinfield et al., 2008; Kramer, 2010; Ko & Kuo, 2009; Kim & Lee 2011; Lee et al., 2011; Manago et al., 2012; Pea et al., 2012). This is important for employers because happier employees are more productive and can boost performance on the job (Wright & Cropanzano, 2004; Zelenski et al., 2008).

On the other hand, civic expressions on prevalent social problems were found to be negatively related to satisfaction in life. This finding supports the results of Leung et al. (2011). Similar to their explanations of this result, the reason could be that individuals who actively express their concerns of social issues may have been already frustrated with the issues. In this sense, it is possible that these social media users become more aware of problems through dialogue and postings of others online, and, hence, are likely to be less satisfied with life. Alternatively, it could also be that these individuals will only indulge in civic expressions on the issue when they become concerned about it. In such cases, unsatisfactory feelings were already present when addressing the social issues.

Objective 5: To investigate the impact of online civic engagement behaviour on virtual social skills.

Findings: Online civic engagement of civic activities (expressions and actions) can reinforce employees' virtual social skills.

One of the objectives of this research is to investigate whether civic efforts in a communicative and collaborative environment, such as Facebook, can also improve the participants' virtual social skills at work. The analysis suggested that both modes of online civic engagement (civic expressions and civic actions) are significantly, positively related to virtual social skills.

Online civic engagement behaviour includes various communication and collaboration processes with a diverse group of people to address and resolve social issues. For example, activists present suggestions to improve the educational system in order to foster unity among citizens, individuals post health-related information in their Facebook timelines, people express their concerns on crime and the unbecoming of institutions, individuals are using Facebook to generate funds, sign petitions and taking civic actions to address social issues (see for examples in Chapters 5, 6 and 8). Given technology's ubiquity, working individuals are exposed to social media inside and outside their work. This provides more opportunities for working individuals to learn and practice how to work and communicate better with others. The findings suggests that this was found to be true.

Interestingly, online civic expressions have as much predictive power as online civic actions on virtual social skills. As shown in Table 8.13, the standardized coefficient of civic expressions is only slightly smaller than the standardized coefficient of civic

actions, suggesting that the two antecedents are equally important in developing users' virtual social skills. In addition, this finding echoes the notion of the virtualization of society, how the use of newer daily life technologies (Facebook, Twitter, etc.) transfers into the workplace (Wang & Haggerty, 2011; Chidambaram & Zigurs, 2001). In this study, the transfer that took place was the development of individuals' virtual social skills at work. Managers interested in developing more effective socialisation skills of their employees in electronic networks of practice should focus attention on encouraging them to be actively involved in online civic activities. This may be incorporated in their organisation's corporate social responsibility policies.

Objective 6: To examine the mediating role of online civic engagement behaviour on

a) trust factors and satisfaction in life.

b) trust in social media and satisfaction in life.

c) trust in institutions and satisfaction in life.

Findings: There is no full mediation effect of both the modes of online civic engagement behaviour (civic expressions and civic actions) on any of the trust factors and satisfaction in life.

Although social media sites may invoke civic expressions among its users, the online civic engagement modes have merely either a partial effect or no effect on trust propensity and satisfaction in life. Although the direct effects with the mediator (civic expressions and civic actions) were significant and positive, their impact on satisfaction in life was reduced. This suggests that there is a possibility that the online civic engagement experience had reduced trust levels and hence decreased their well-being. In a similar vein, civic expressions also had an indirect effect on trust in social media

and satisfaction in life. Thus far, this is a new finding on the mediating effect of online civic engagement behaviour, as no other studies have examined this area before.

Objective 7: To examine the impact of virtual social skills on satisfaction in life.

Finding: Virtual social skills increase people's satisfaction in life.

There is a positive and significant relationship between participants' virtual social skills and their well-being. The finding suggests that effective social skills, which include the communicative ability to express oneself and to understand the perspectives of others improves satisfaction in life. One explanation to this finding is borrowed from Ferris et al. (2001) and Gardner (1993). They adopted the view that those individuals possessing a high level of social skills are not only better able to understand and read other people but are also more adept at forming opinions of their own capabilities to operate effectively in life. Linking to this notion is that effectiveness in communication or social interactions have been found to foster positive feelings, thus increasing one's well-being (see for example Putnam, 2000; Peterson et al., 2005; Visser et al., 2013).

In a different perspective, this finding is in line with past studies which have suggested that social media use for communication improve people's overall well-being (see for example Ko & Kuo, 2009; Baker & Moore, 2008; Lee et al., 2011). Hence, managers should focus on enhancing employees' online social skills, which can improve the business operations with more effective communication skills and boost employees' performance at work due to the effects of positive feelings (Wright & Cropanzano, 2004; Zelenski et al., 2008).

9.2 Online civic engagement interdisciplinary model

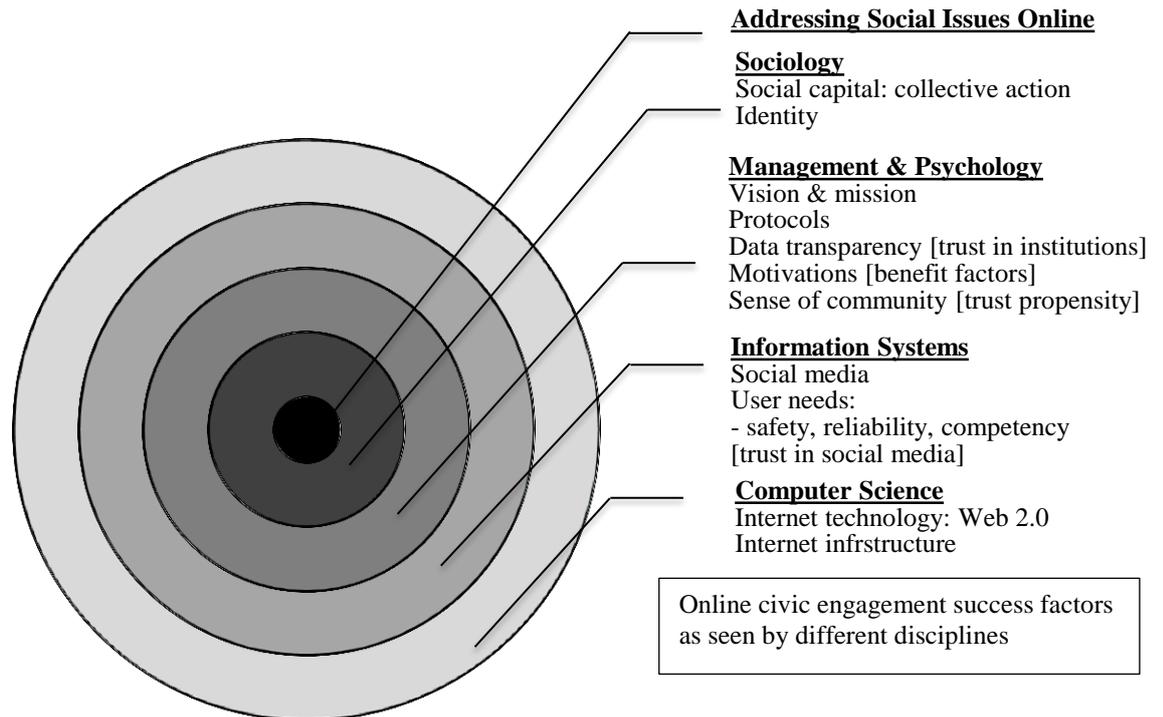


Figure 9.1 An interdisciplinary relationship of online civic engagement success factors

A review of the literature and the findings from interviews, web analysis and surveys suggests that to address social issues using social media is a combination of factors needed from various disciplines (Figure 9.1). Online civic engagement begins with understanding the need for a wider reach to the public than traditional methods at a lower cost. This need is achievable with accessibility to computers and Internet technology. With the core Internet infrastructure foundation, users need to perceive social media as a safe and reliable environment from the perspective of the Information Systems domain. This is where trust in social media have to be addressed. Moreover, this is where the most salient design interface of the social media site must take into consideration the ease of integrating various usages such as posting of materials, having online chats, sharing photos and videos and sending links. A user-friendly social media site provides a higher chance for open communication and collaboration.

In the field of psychology and management, motivations of trust have been addressed as a salient predictor in participatory behaviours, as indicated in the literature review. Thus, being transparent would be a way to build trust in institutions and to narrow the institution-public gap. Instilling a sense of community and family values into daily lives via online advertisements and campaigns is a way to reinforce civic and moral values among citizens. Incorporating a sense of identity as a community and the ability to provide intrinsic incentives, such as recognizing civic contributions by posting on social sites, users would feel appreciated and will be more encouraged to participate further in civic efforts addressing social issues. According to sociologists, such as Coleman (1990), these behaviours when done collectively in addressing social issues, would produce public value – social capital and social order. This study has brought insights into the new landscape of civic engagement in an online context and realized a conceptual model in terms of the relationships among academic disciplines. For a social media citizenship behaviour to occur, several factors from different disciplines need to be integrated, in particular: Internet infrastructure and technology, web interface designs, functionality, trustworthiness, a clear vision and mission of the civic cause, transparency, incentives, sense of community, identity and social order. With these at hand, collection action in addressing social issues in social media can occur. The following section presents a four level model that describes the wave of online civic engagement behaviour.

9.3 Online civic engagement maturity model

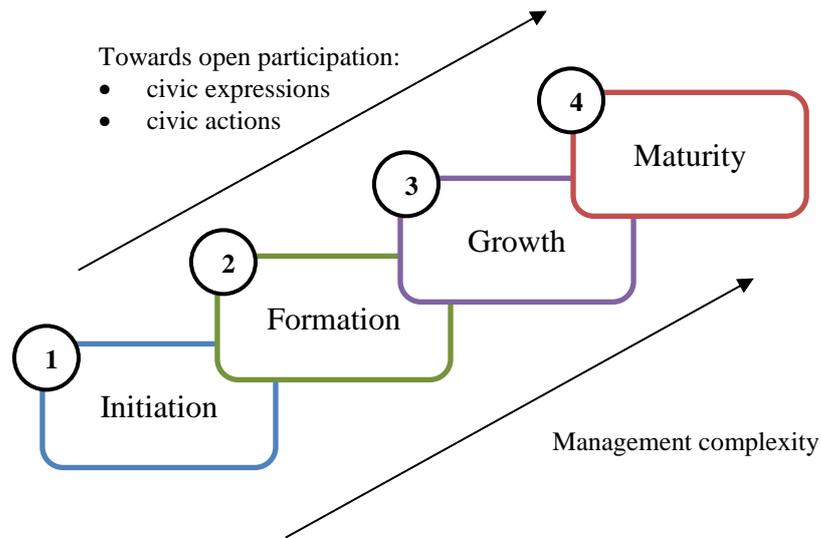


Figure 9.2 Online civic engagement maturity model

Based on the literature review and understanding from the study on online civic engagement behaviour, this study has developed an Online Civic Engagement Maturity Model (OCEMM). The model is at a conceptual level. It can act as a guiding framework for policy makers, not-for-profit organisations, activists, government agencies and businesses to assess their current level of online civic engagement maturity. The model can be used by any organisation without major modification because the core principles and objectives of online civic engagement are the same for any organization, that is, to curb social issues. The model is depicted in Figure. 9.2. As practitioners move to a higher maturity level, the public is more engaged and thus greater public value of online civic engagement is realized. These values would be derived from the group incentives or from intrinsic motivations to address social problems. On the other hand, a higher maturity level faces increased complexity in terms of the protocols and technicality which results in greater challenges.

One of the important principles of OCEMM is that practitioners should follow the proposed stages from the initiation stages to higher maturity levels, instead of achieving

all levels at once or skipping a level and jumping to the next level. For example, it is proposed that building trust through social media (safety, reliability and competency) and trust in institutions (by ensuring data transparency) are important as enablers for open participation to occur in social media. The observations of activists' initiatives on social media usage for addressing social issues led us to the conclusion that simultaneously pursuing multiple maturity levels of civic engagement often causes numerous challenging issues concerning resources, budget, time, technology, and confusion by the users. By focusing on accomplishing one level at a time, practitioners can effectively build the needed infrastructure and capabilities without overburdening themselves or overwhelming and confusing the public.

Level 1 - Initiation

Level 1 of the OCEMM refers to the initiation stage of an online civic engagement project. At this level, the success factors include having a clear vision and mission, where the goals must be transparent, and the protocols must be clearly laid out including the codes of behaviour. A strong tag line for the civic initiative would also capture public attention. The resources needed to facilitate the project have to also be tabulated so that the public know what is needed to make the project a success. Practitioners will also need to focus on the motivations, particularly highlighting the group incentives (e.g. benefits to family members and community) obtained from the civic participation.

Level 2 - Formation

Level 2 represents the formation stage of the online civic engagement project with the use of a social media site. In the formation stage, practitioners select the technological features of social media sites (e.g. discussion forums, Instagrams, linking abilities and chats rooms) that will support the online civic engagement effort. These initial

conditions in Level 1 must be presented visibly on the selected social media site accessible to the public. Trust is enhanced further by handling user data sensitively and that the platform is secure, reliable and competent in its functions. Moreover, the design of the site needs to be user-friendly and systematic to avoid cluttering that may confuse the user. Knowing users' preferences may enhance the design of the social media sites and attract larger crowds.

Level 3 – Growth

Level 3 of the OCEMM focuses on inviting an open participation from the public in the organisation's work and decision through its social media site. For policy makers, open participation enhances policy decisions and services by welcoming and utilizing the input of the public in addressing social issues. The social media related sites need to facilitate interaction and participation by making two-way communication possible. This is important because if engagement is only occurring between members of the public, and in the absence of the organization input, then there may be no real benefit for the site to be set up (Steenkamp & Hyde-Clarke, 2014). On the other hand, when individuals on such social media sites engage in discussion and contribute to the formation of public opinion, it shows that there is an interest for an environment to bring them together due to common interest, particularly on social matters.

In this level, practitioners strive to bring conversations, anecdotes, comments, stories, ideas, and experiences from the public to everyone's attention. Such open civic communication relies on how well practitioners are able to solicit participants' interests by reinforcing the benefit factors. Moreover, they also need to make the access for participation easier by integrating social media and Web 2.0 tools including dialogue, photo and video sharing, interactive postings, twittering, social tagging or booking on their social media site. Level 3 is where social capital begins. This level can be

considered to be the civic expressive mode of online civic engagement behaviour, which is an important enabler for open collaboration in the next level, Level 4.

Level 4 – Maturity

Once organisations reach the maturity of the growth level, the next step is to foster open collaboration among the users who could be from the government, the public, the private sector or even youth. In the growth level, public civic engagement is relatively simple communications through dialogue and postings of materials, expressing concerns on the social issues. The maturity level, on the other hand, refers to the users taking civic actions, such as coordinating civic events, scheduling plans for meetings, donating, volunteering, voting online and signing online petitions. In this final stage, it is important that the organisers provide social recognition to the active participants, such as a special posting on the site and a letter of appreciation to the person and the person's company. Appreciation of the contributions made by users is also vital to sustain users' participation in future civic projects. To ensure longevity of the maturity stage, organisations should arrange for regular events, particularly those that participants can meet offline. Such actions would foster greater social capital. In terms of the technical matters, there needs to be an efficient search engine due to data incremental. Moreover, a systematic manner for data storage is essential at this stage. Trust building elements at this stage would be to tabulate the results of every civic project including the accounts online. If possible, the organiser should develop data analytics capabilities to obtain new insights concerning the online civic participatory behaviour to improve the operations and decision-making.

The OCEMM proposes that organisations should progress through different levels in an orderly manner. While there are many success factors for each level beyond what has

been mentioned, organisations should focus on high-value, high-impact initiatives for each level rather than concentrating too much about what is not working. Building a solid foundation of trust and the benefit factors are vital. This will allow growth and maturity to take place accordingly. Approaching social issues using social media, such as Facebook, on a level by level basis provides a systematic way of leveraging resources. This would provide a higher opportunity of success for any civic project or effort in addressing social issues.

9.4 Contributions

9.4.1 Contribution to the theories and literature

This thesis contributes to the IS and civic engagement literature in a number of respects. First, in the absence of defined metrics, this study contributed to the development of a new measure which is online civic engagement behaviour. This new construct can shed further light on how individuals are using social media for civic engagement by differentiating similar forms of civic interactions. The new scale development addressed the need to have a richer measure of social media as indicated in Gap 1. The results indicated that online civic engagement behaviour encompasses two modes: civic expressions and civic actions.

Second, drawing on the social capital, social exchange and general incentives theories, this study offers an online civic engagement model (see Figure 8.4) that explains how social media is shaping civic engagement in different modes and the impact of these modes have on citizens' well-being and employees' virtual social skills. This model provides a theoretical foundation for understanding social exchanges in the form of civic participation using social media; thus addressing Gap 6. In particular, the research adds to the literature of social capital by expanding the notion of trust. Specifically, the study

investigated (1) trust propensity, (2) trust in social media, and (3) trust in institutions and tied them with the modes of online civic engagement behaviour. The findings raise the prominence of trust in social media and trust in institutions in encouraging participatory behaviour, particularly on civic expressions. Phase 3 confirms the understanding of the key role of specific benefit factors that influences citizens' mode of online civic engagement. The theories lend support to the findings concerning the roles of group incentives and reputation in encouraging users to contribute their time and knowledge for addressing prevalent social problems on Facebook. The findings have unearthed these understudied factors (Gap 4) as key impetuses for online civic engagement behaviour.

Third, the study advances the social media and civic engagement literature by providing new insights to previously less explored relationships, specifically the impact of the modes of online civic engagement on satisfaction in life and virtual social skills (Gap 5). The results have suggested that experience in addressing social issues via Facebook have helped develop one aspect of virtual competence, which is a virtual social skill at work. Although the analyses imply that civic expressions and civic actions may be complementary, they are still different. That is, they have different effects on virtual social skills at work and on satisfaction in life. On one hand, the more a user expresses opinions and engages in online conversations on social issues, the more likely this person develops or portrays virtual social skills at work. On the other hand, engaging in online expressions had a negative effect on satisfaction in life. Moreover, engaging in online civic actions has a stronger positive impact on virtual social skills than civic expressions. Nevertheless, both findings of civic modes on virtual social skills in Facebook support the notion by Berger (2009) that online communications are often text-based, purposive, and goal-oriented, and, therefore these modes could provide a set

of useful tools for the proliferation of civic engagement and improvement of virtual social skills at work.

Fourth, the study contributed to the considerable literature in subject well-being, often referred to as happiness studies. The results suggested that there is a positive relationship between individuals who participated in online civic actions and satisfaction in life in comparison to those who contributed to civic expressions online. A finding which is new and serves as an opportunity to encourage the public to be civilly connected online as way to increase their sense of well-being. In addition, the results suggested that virtual social skills had a positive impact on satisfaction in life. In this aspect, the study contributed new knowledge to the subject well-being literature by uncovering two new factors that influence satisfaction in life, which are conducting civic actions on Facebook and virtual social skills.

Fifth, the current research developed an instrument for measuring (1) the factors influencing online civic engagement behaviour, (2) the modes of online civic engagement behaviour, and (3) the impact of online civic engagement behaviour on satisfaction in life and virtual social skills. The instrument underwent the necessary statistical tests to ensure reliability and validity.

Finally, this study has developed an online civic engagement maturity model as a conceptual model based on the literature and the understandings from the research. This study argues that there is a logical sequence for increasing social media-based public engagement and practitioners should focus on achieving one maturity level at a time.

9.4.2 Contribution to the methodology

This thesis contributes to two major aspects in terms of methodology. First, it examined previously unexplored relationships, specifically the relationships between interviews, web analysis and survey in online civic engagement behaviour. This research demonstrates the connections among different methods throughout Phases 1, 2, 3 and 4 in respect of this phenomena. Although interviews, content analysis and survey analysis of online civic engagement have been documented (see examples in Chapter 2), research has so far been limited in examining these as separate dimensions in isolation from one another. This study focuses on drawing all three dimensions together (interviews, web analysis and surveys). This research served to improve the understanding of the links between what activists said and what was conducted on social media in addressing social issues. This study also reported the level of citizens' actual civic participatory using Facebook when dealing with the prevalent social problems, which are crime, disengagement in civic matters and moral values, and quality of education.

The second major methodological contribution to the development of a new measure: online civic engagement behaviour, which encompasses two modes, civic expressions and civic actions. Third, this study developed and validated a survey instrument for measuring online civic engagement behaviour, in particular, the key impetuses that influence social media civic engagement and the impact of such behaviours on satisfaction in life and virtual social skills. Other methodological contributions include the research designs and validation processes for the instrument developed.

9.4.3 Practical implications

As the number of Facebook users grows and more forms of social media emerge, it is beneficial for practitioners to recognise and understand how to use these tools as they relate to their jobs (Curtis et al., 2010). In particular, practitioners working for non-profit organisations can benefit from adopting social media due to their often limited monetary resources (Seltzer & Mitrook, 2007; Waters et al., 2009). In the interviews with social activists from NGOs, it seems that their organisations encourage a steady stream of visitors to Facebook forming an important means of increasing awareness, donations and active participation as volunteers. Results from the survey echoes these online civic engagement behaviour found in Phase 1 and Phase 2. As such, a more frequent use of two-way communication, particularly for civic expressions and civic actions, should be considered by non-profits and other organisations in order to avoid losing members and potential followers or participants.

This research also revealed that there is a sense of disengagement between the police and the public and between the government and citizens due to the perception of corruption and the lackadaisical attitude of officers. Furthermore, people are beginning to feel that what they do matters little to the civic life and health of their communities or the country as these efforts tend to receive little attention. As such, the government needs to shift to an approach that places citizens at the centre in a meaningful way to make them feel needed and appreciated. They need to help ordinary people take action on the issues that are most important to them, and in the ways they choose. More importantly, the government first needs to build citizen trust. One way to do so is to enforce e-government initiatives with the public using social media.

Online civic expressions have been shown to be a more popular mode, which suggests that the public has the initiative and are willing to discuss and negotiate on matters concerning social problems. Policy makers should take this opportunity and be more interactive with the people using Facebook. Policy makers could also encourage individuals to engage in social issues by emphasizing the outcome benefits for families and the communities around them. Moreover, the government should put up a Facebook 'wall of pride' as a status strategy to increase citizens' online civic engagement behaviour. Individual reputation may become more salient if policy makers build bridges between physical and online settings in social media by finding ways to spread reputation developed on Facebook to their profession at the workplace as a whole.

Managers interested in developing and sustaining corporate social responsibility programmes could deploy a social media site, such as Facebook, for civic exchange. They should focus attention on the creation and maintenance of a set of core, centralized activists with experience in the practice by using incentives, such as enhanced reputation, to actively promote online civic actions. According to Wasko and Faraj (2005), centralized employees create a critical mass that sustains the network and maintains the network's usefulness by contributing resources to others. For example, managers could assign status to employees and make this status apparent both within the social media site and off-line as well to encourage civic or content contributions.

9.5 Limitations

The first limitation comes from the fact that the study is cross-sectional in nature, strong causal inferences cannot be made. It may well be that trusting citizens are more likely to demonstrate civic participatory behaviour are happy and virtually sociable. Secondly, its

sampling method would also limit the findings' ability for generalization. Thirdly, despite certain positive and significant indicators of the antecedent and consequences of online civic engagement behaviour, the study does not entail systematic evaluation and detailed analysis of Facebook as a supporting civic communication channel. As a result, there is limited knowledge concerning how the intended elements of civic initiatives were actualized.

Fourth, the scope of this study only examined one aspect of social media and civic engagement: addressing the three prevalent social problems using Facebook. While it can be said that online civic engagement addresses the prevalent social problems, however the study is unable to differentiate modes in civic participatory behaviour in and across different social media sites. Fifth, although the findings are encouraging and useful, whether the findings could be generalized to all types of social media sites is unclear. Facebook usage for civic engagement practices might be different from that of other social media sites or Web 2.0 virtual communities of practice. Sixth, the online civic engagement maturity model is at its conceptual level where no validation has been done yet. Other limitations of this research in terms of methodology were discussed in Chapter 4.

9.6 Future research

Future studies should examine whether social media sites exhibit similar dynamics and compare individual motivations and social capital across these sites to see if there are variations in the level of participation and their outcomes similar to what was found. While it can be argued that online civic engagement can be a key to sustaining social media sites and increasing public involvement in social issues, future research should compare its effect across different social media sites for an in-depth understanding.

Longitudinal studies are also encouraged in order to be able to demonstrate if there are changes in civic participatory behaviour and its effects on well-being and virtual social skills. This would allow the study to be more generalizable.

As the modes of online civic engagement on Facebook appear to be in a very relaxed, informal manner, some may argue that it amounts to slacktivism. As such, the most burning research question for future research revolves around the actual efficacy of online civic engagement using social media, specifically, the connection between online and offline civic participatory. Other opportunities for future research include the attempts to address the following research questions: (1) What constitutes effective online civic engagement behaviour? (2) What makes online civic participatory behaviour difficult? And (3) What strategies can individuals deploy with Facebook's features to make it more civic-friendly to attract public participation? A broader range of social capital and benefit factors would also reveal deeper insights into the influencers of online civic engagement behaviour.

9.7 Concluding comments

Raynes-Goldie and Walker (2008) noted that for social change to occur, advocates need the following: information, people, and tools. This study provided the example of how advocates, such as activists, are able to utilize Facebook (the tool) to inform its followers (people) on issues and planned actions (information). Much has been said about social media's potential in fostering civic participation, and this study has found it to be possible. Throughout this paper, examples and possibilities of the growing phenomenon of activists and individuals who are passionate to inform, educate and organize themselves online for civic engagement activities using social media have been presented. The results suggest that there is ample interactive online civic

communications on Facebook which aimed at facilitating civic engagement. Facebook provides access to members for searching for information, and tools to mobilize and organize. The findings also illustrate the seriousness of the activists and other individuals in using Facebook in advocating their causes.

Social capital and trust in institutions are essential elements in maintaining social order in a country (Blau, 1994; Misztal, 1996; Putnam, 2000). As such, it is important to build up trust in institutions. Engendering trust using IS by institutions is possible (see for example den Butter et al., 2012), particular in using social media (Parent et al., 2005). However, trust needs to be built over time (Lewicki & Wiethoff, 2000). Citizens' judgment concerning the trustworthiness of the local institutions will be based on many factors other than whether they do a good job in attending to social issues and the needs of citizen. One factor is to allow for transparency. For example, by posting the allocation of budgets and its utilization for civic activities on Facebook. In this manner, citizens can see how the government conducts its decision making and distribution of resources.

Another way to bridge the gap of institution-public distrust is to instil a sense of community relationship between both parties distributing some decision making authority to the public. For instance, by allowing online citizens to organize civic activities in the ways they choose with the approval and support by policy makers, the public would change their perceptions towards institutions and would more likely participate willingly and trustingly without a sense of opacity. Although social media such as Facebook cannot promise to unite both institutions and citizens one hundred per cent, it can enable effectiveness to a certain extent in two important perspectives: (1)

build social capital via online civic engagement; (2) instil a sense of urgency for people to be involved in addressing social problems.

In conclusion, this paper presented answers to the hypotheses developed and met its objectives in delivering new insights into how social media is shaping the landscape of civic engagement and its impact on citizens' well-being and virtual social skills. Social media have mobilized new patterns for online civic engagement in two ways, i.e. civic expressions and civic actions. For example, citizens are posting links on social issues to be shared; news, photos, videos and images of social issues are posted on Facebook pages to educate, inform and create awareness of these issues; citizens are now utilizing the features of Facebook to plan civic events, such as charities and protests and make e-invitations to these events. They are also voting and signing online petitions.

The overall findings contribute to a model that explains the influences of online civic engagement behaviour using Facebook and its impact on satisfaction in life and virtual social skills. As social media such as Facebook expands, it is essential for practitioners to recognize the resourcefulness of social media and take advantage of every available opportunity to effectively reach the public to more involve in civic engagement. The researcher shares the positive notions of other scholars (e.g. Raynes-Goldie & Walker, 2008; Gil de Zuniga et al., 2012) that social media fosters social capital. It brings people from all walks of lives together to address social problems. The researcher believes that the future of online civic engagement in fostering positive changes for the nation is bright.

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LIST OF PUBLICATIONS AND PAPERS PRESENTED

Publications:

- Warren, A. M., Sulaiman, A., & Jaafar, N. I. Social media effects on fostering online civic engagement and building citizen trust and trust in institutions. *Government Information Quarterly*(0). – Available online 5 March 2014.
- Warren, A. M., Sulaiman, A., & Jaafar, N. I. (2014). Facebook: The enabler of online civic engagement for activists. *Computers in Human Behavior*, 32, 284-289.
- Warren, A. M., Sulaiman, A., & Jaafar, N. I.(2013). Engaging with activists: Exploring social problems and online civic engagement. *Communications of Global Information Technology* 5:33-40.

Proceedings:

- Warren, A. M., Sulaiman, A., & Jaafar, N. I. (2013). *Investigating Civic Engagement in Social Media*. Paper Presented at Pacific Asia Conference on Information Systems (PACIS) Proceedings, Paper 270, 18 - 22 June 2013, Jeju Island, Korea.
- Warren, A. M., Sulaiman, A., & Jaafar, N. I. (2013). *Engaging with Activists: Exploring Social Problems and Online Civic Engagement*. Paper presented at the 14th Annual Global Information Technology Management Association (GITMA) World Conference 2013, 16 – 18 June 2013, Kuala Lumpur, Malaysia.

Submitted Papers Under Review:

- Warren, A. M., Sulaiman, A., & Jaafar, N. I. Understanding Civic Engagement Behaviour on Facebook from a Social Capital Theory Perspective *Behaviour & Information Technology*. – Acceptance subject to minor revisions 25 April 2014.
- Warren, A. M., Sulaiman, A., & Jaafar, N. I. Facebook Activism: The effects of trust in social media and trust in institutions on online civic engagement behavior. *New Media & Society*.
- Warren, A. M., Sulaiman, A., & Jaafar, N. I. Youth civic engagement behaviour on Facebook: A cultural comparison of findings from Malaysia and Indonesia. *Journal of Global Information Technology Management (JGITM)*

Appendix 1 Letter from University of Malaya



**UNIVERSITY
OF MALAYA**

The Leader in Research & Innovation

July 25, 2012

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

This is to certify that **ANNE MARIE WARREN**, IC/ No. **790417-14-5192**, Matric No. **CHA110011** is a student pursuing the Doctor of Philosophy (PhD) programme at the Faculty of Business and Accountancy, University of Malaya, Kuala Lumpur. As part of the requirements of this programme, she is required to conduct a research under the field of "Civic Engagement/Public Issues in Social Media" under the supervision of Prof. Dr. Ainin Sulaiman.

We would be grateful if you could provide her with the necessary assistance and cooperation to enable her to collect the data required for the above purpose.

We also would like to express our utmost appreciation for your willingness to allocate your time and for sharing your knowledge with our student. We assure you that all information provided will be treated with great care and will not be used for other purposes except for academic purposes only.

Thank you for your cooperation.

Yours sincerely,

(ASSOC. PROF. DR. ZAKIAH SALEH)

Director
Graduate School of Business
Faculty of Business and Accountancy
University of Malaya

Appendix 2 Example of Interview Letter Request to Social Activist

Anne Marie Warren
PhD Student
University of Malaysia
Faculty of Business and Accountancy
Department of Operations and Management Information Systems
50603 Kuala Lumpur.
Email: annemw7@siswa.um.edu.my
H/P Tel: 012-6173738

Interviewee's Name
Chairman
SP Setia Foundation
Setia Corporate Tower
5A, JalanSetia Nusantara U13/17,
Seksyen U13, 40170 Shah Alam,
Selangor DarulEhsan.

30th July 2012

Sir,

Sub: Requesting for an Interview

I am a PhD student at University of Malaya and am doing a study on social issues. The purpose of my research is to increase our understanding of public concerns and the use of social media to foster collective action to increase our quality of life. Your experience and committed service to the people of Malaysia has led me to seek your advice and information with regard to the area of this study.

I would be very grateful for the opportunity to meet with you for about 30 minutes in at a time and date of your convenience.

I sincerely hope that you will consider participating in my effort to document the social issues and concerns that our society is facing. I will be contacting your organisation via telephone or email in the near future for a possibility of setting up a time for us to talk in person.

Please feel free to contact me with any questions. An official letter from University of Malaya confirming my studentship and study is as attached for your reference.

Thank you.

Sincerely,

Anne Marie Warren

Appendix 3 Interview Protocol

Interviewee Profile

Date:

Location:

Interviewee:

Organization work for:

Years with the organization:

Position Title:

Thank you for your agreeing to meet me today. I am Anne Marie, a PhD student at University of Malaya. My research area is about on social media usage for civic efforts. The purpose of this study is to increase our understanding of how social media to is used to address social issues. This interview will take about an hour or less and will include about 5 to 6 questions regarding your opinion and experiences on issues which matters to the public and the use of social media in this aspect. I would like your permission to tape record this interview, so I may accurately document the information you convey. If at any time during the interview you wish to discontinue the use of the recorder or the interview itself, please feel free to let me know. Your responses will be used to develop a better understanding of how social media Do you have any questions or concerns before we begin? Then with your permission, please acknowledge the consent for this interview by signing the consent form and when you're ready, we will begin the interview.

Appendix 3, continued

No.	Objectives	Questions	Remarks	Check (√) / Comments
1.	Warm up question and to define the term social issue.	<ul style="list-style-type: none"> • To your understanding, what is a social issue? 	Follow up with some examples if none provided.	
2.	To identify the major social issues in Malaysia.	<ul style="list-style-type: none"> • In your opinion, what are the major social problems our country is facing today? 	If many are listed then ask: Among these issues that you've mentioned, which are the top three social issues do you feel strongly about?	
3.	To understand the importance of addressing social issues in Malaysia.	<ul style="list-style-type: none"> • Why is it important for us to address these issues? 	What will you foresee if we don't solve these issues?	
4.	To understand the modes of online civic engagement behaviour.	<ul style="list-style-type: none"> • How do you or your organization, convey your thoughts and beliefs on such social issues online using social media such as Facebook and blogs. • In your opinion, how can social media do to combat these social issues? • What do you think the online community can do to help solve these issues? 	Probing question: Can you give some examples on some of the efforts you have done on Facebook to address these concerns?	
5.	To understand the impact of online civic engagement behaviour.	<ul style="list-style-type: none"> • What do you think will happen with your efforts online? 	-	
6.	To gather data for Phase 2.	Proceed to seek consent to add the interviewee as a friend on Facebook and apply relevant data from their social media sites (personal and/or organization's social media sites) for further exploration on civic efforts in social media.		

That's great. Thank you so much for taking the time out of your busy schedule to be here and to talk with me. Please feel free to contact me if you need any clarification on the interview.

Appendix 4 Informed consent form for the interviewee

Research topic	Investigating civic engagement in social media
Name of researcher/Interviewer	Anne Marie Warren
Name of supervising academic	Professor Dr. AininSulaiman Dr Noor Ismawati Jaafar
Telephone	012-6173738
E-mail address	annemw7@siswa.um.edu.my
Description of the broad nature of the research	To gather data to explore the major social issues in Malaysia and the use of social media to address these issues.
Description of the involvement expected of the participant:	Semi-structured interviews. All interviews will be recorded with a digital voice recorder and transcribed. Data obtained through this research will be treated with great care and will not be used for other purposes other than for academic use. Participation is entirely voluntary and the participant may withdraw at any time.

By signing this consent form, you are indicating that you fully understand the above information and agree to participate in this study on the basis of the above information.

Participant's signature:

Date:

Participant Name:

Participant's Position Title:

Appendix 5 Instructions for inter-coder reliability

Dear Sir/ Madam,

The purpose of this exercise is to ensure that the coding done by the researcher has an adequate level of reliability. Please kindly indicate with a single check [] next to the mode that you feel is best associated with the numbered excerpts in the matrix on the next few pages.

The modes of interest are defined below:

<i>Collection of Information</i>	Reading and/or searching for information pertaining to social issues or people related in the issues using social media.
<i>Publication of Information</i>	Constructing websites and/or publishing materials on social issues including emails, post links, messages and articles using social media.
<i>Dialogue</i>	Using social media to share opinions on public matters in a conversational manner.
<i>Coordination of Action</i>	Forming coalitions, coordinate and/or organizing activities that address social issues using social media.
<i>Lobbying decision makers</i>	A social media effort that calls for a respond or action from social media users to pressure the government or those in charge to make a change to address a social issue.

Thank you for your kind assistance. Upon completion, kindly return the form to the researcher.

Anne Marie Warren
PhD student
University of Malaysia
Faculty of Business and Accountancy
Department of Operations and Management Information Systems
50603 Kuala Lumpur.
Email: annemw7@siswa.um.edu.my

Appendix 6 Intra-coder and inter-coder reliability matrix for prevalent social problems

Excerpts	Category of Social Problems		
<i>Instruction:</i> Kindly indicate with a single check [√] next to the category that you feel is best associated with the numbered excerpts below:	Crime	Disengagement from civic matters & moral values	Quality of Education
1. For me the biggest issue would be crime. Despite my great admiration for the GP [General Police officers] and the work that they do but as for someone who was personal robbed and who also know of friends and know people in the community who have been robbed 3 times in the last 2 month, this reflects what's going on. For me the biggest issue would be crime. Crime is a major under reported issue in this country. Once, my mother was near the front gate of the house when a motorist pulled up and grabbed her fiercely, snatched her gold chain and was pushed off so roughly that she hurt herself.			
2. The younger generation wants to be a millionaire by the age of 30 with the least amount of work. They are very much materialistic. They may want to help but are not focusing on the real intentions because they are brought up not in reality. They just have good intentions without truly understanding its meaning. For example, how do you know you can help someone with breast cancer? You want to help but how can you especially if it comes from a man? You have good intentions but where is the sense of reality?			
3. Our education system is failing us...you can see it in from our racial relations. We are not mixing as much as before. Although we are tolerant of each other's cultures and way of life, Malaysia has yet to reach a status of true acceptance as a united nation. Children need to be though how to work together inspite our differences in culture and ethnicity. Respect needs to be emphasized.			
4. For example, the street crimes...Of course, sometimes the street crimes can be traumatic such as snatch thefts reported in the media. As a result of the criminal act being committed against the person, the lady fells down and she was injured, and as worst still, in the end she did not recover, she passed away. I have observed that most of these snatch thefts are actually committed by those who are high on drugs.			
5. Personal well being in terms of ethics, in terms of moral, in terms of integrity, in terms of noble values... these universal values have been lagging behind now and as a result, there has been a gap, between economics, ICT, technology and human development and moral development.			
6. I think what potentially that can be done more is on our education system. The races are obviously not mixing as much as before and that's because of the education system. Instead of uniting, its seems to dividing the races.			
7. Crime is a very big issue. I think that there is a concern in violent crime. It's a big problem. Today, even petty crimes are violent, even a snatch theft involves violence. It is incomprehensible...You see those days, you can see which are violent and non-violent, today which is difficult. Today even petty crimes are violent... they carry parang [huge knife] and knives, even for snatching handbags.			
8. We need to work on increasing civic awareness and manners. There seems to be segregation or ethnicity in our society these days and a lack of manners among people.			

Appendix 6, continued

Excerpts	Category of Social Problems		
	Crime	Disengagement from civic matters & moral values	Quality of Education
<p><i>Instruction:</i> Kindly indicate with a single check [√] next to the category that you feel is best associated with the numbered excerpts below:</p>			
9. Because of the stigma on teenage pregnancy, babies are being abandoned, dumped in toilets, in the river and in the garbage bins. I think the increase of teenage pregnancy, especially unwedded youths, sort of has a link in the increase of babies being abandoned.			
10. Illegal immigrants are a problem in the country. They end up having to survive on a day to day basis. Some of them end up becoming desperate for quick cash and resort to violent crimes.			
11. If a traffic policeman stops somebody on the road, supposedly you are passing by, what is the first thing that comes into your mind? Oh this chap must be negotiating for the traffic offense. This police is in the midst of makan duit kopi.[Taking 'coffee money'].			
12. Drugs are an issue. A lot of cases of students get the drugs sent to their houses. They get drugs from local and foreigners...if they (students) have no money then they will resort to other means...stealing...borrowing money illegally from the loan sharks and they get themselves and their family in trouble.			
13. If you look at our national education system, we never seem to get ahead. If you look at what is going on in the country, when you talk to the parents, they don't like to send their children to the national schools, they would prefer to send their children to the Chinese schools, number 1. Number 2, they would prefer to send their children to international schools if they are financially well off. International schools are a big demand today. It's a big business today. I think the reason is because they don't have faith in our national education system today especially with the kind of students we are producing today. Even those who attend universities, when they graduate, they can't even speak proper English and some of these are the ones who join the government service and when they go to foreign places, when they talk to their counterparts and all kinds of grammatical errors will come and this will reflect their how they were taught. I think with the Bahasa Melayu [the national language], we are not going very far. I would say I would like to see us revert back to the systems of my days, the English school. During my days, they had the Anglo-Chinese schools, like St Michaels. I am a product of the mission school like St Michaels, I take my hats off to the brothers, who are so dedicated, who come from Ireland and just park them here and dedicate their lives to education. So I would say we are having "system pendidikan rojak" [messed up system], because the government doesn't seem to change because of their pride. They have set up so many committees to evaluate. But what is the real test? I have read the main gist of the educational national policy is to unite, to unify the people. But today's education policy is not uniting the people. The problem of today's polarization of the ration system is so serious today, even in the national schools. The Malay students will be with the Malay students, the Chinese will be with the Chinese, I mean, where are we going from here? This is a social issue.			

Note: This is only part of the intra-coder and inter-coder reliability matrix, the actual list continues until item number 58. What is presented here is for illustration purposes.

Appendix 7 Intra-coder and inter-coder reliability matrix for online civic engagement behaviour modes

Excerpts	Modes				
<i>Instruction:</i> Kindly indicate with a single check [√] next to the mode that you feel is best associated with the numbered excerpts below:	Collection of Information	Publication of Information	Dialogue	Coordination of Action	Lobbying decision makers
1. Social media have been proven to be a very powerful instrument. Less and less people are reading the newspaper. In fact, some of my friends, when I ask them if they have read my articles, and they say: no, we just go on the Internet to find out information.					
2. I check on people's status. I do read the shared news...especially if it involves teenage pregnancy and baby dumping or any issues on women.					
3. The latest fund raising is on Baby Takhir (baby with heart problem). I did the poster on Facebook and shared the poster 130 times and right now it has been shared like 1000 times. An amount of about RM25,000 (about USD8333) has been collected and baby is now about 2 weeks old. Everybody is still sharing.					
4. I want people to know about the importance of moral values... of being responsible and to set a good example. So I post messages and articles on the philosophy or share links from Youtube that are inspirational. There's just too much of negativity around these days among people.					
5. Social media like Facebook can provide platforms and opportunities for different races today to mix more with each other.					
6. To be very honest, our newspapers are filtered by the government, so it's not very easy to get the real news on public television or newspapers but through Facebook, it's much more open.					
7. I was surprised at how fast our video link on against corruption went ... I think in just three days...there were around 120 likes and shared like about 200 times...and some of them are other people on Facebook whom I do not know... some of them even asked me more questions on it...					
8. When we needed volunteers help with the kids, we wanted to bring some of orphans to a science exhibition, I posted it up on the page and the requirements like, you have to pay for them and your own ticket, the venue and time.					
9. There are a lot of links on Facebook. Most of them are posted by friends. Like the save the water dam project and getting volunteers. Like when I have time at hand, I like to check out these links, sometimes they are videos, especially on the Bersih (for the Fair and Clean Coalition protest) ones. I was really upset when there is evidence for injustice and nothing is being done...evidence like the videos posted...it's so obvious.					
10. I wanted to share to educate my friends and other people about poverty. Like the 30-Hour Famine, I post on its different stages to promote it. I just promote it like what's it about, why are we doing it, why you should join us, what's expected, what is being contributed until the last state of the promotion, like have you join us yet, the number of people have joined us. I post it on the timeline with links.					
11. I search for groups or contacts who might be interested to participate in the campaigns I am involved with.					
12. I blast it on Facebook with my contact. I set the time, what time you need to arrive. Like when we did a program called E to C, like Explore to Clean...I just blast it on Facebook. We had a climbing expedition while cleaning up the place, picking up rubbish.					

Appendix 7, continued

Excerpts	Modes				
<p><i>Instruction:</i></p> <p>Kindly indicate with a single check [√] next to the mode that you feel is best associated with the numbered excerpts below:</p>	Collection of Information	Publication of Information	Dialogue	Coordination of Action	Lobbying decision makers
13. We [the NGO] have events almost every month, so what we do is to make sure that for all of our programs; we have as many volunteers as possible. So we use our website mostly for that to get as many volunteers as possible for that...We do get more volunteers on Facebook and Twitter. In the last one year, it was easier to get volunteers. Social media helps. And quite a number turn up to the event is through Facebook's promotion.					
14. I changed my profile picture to support the cause. Like the Bersih logo [the coalition logo for a fair and clean election], I put it up for the entire month. Or like Say No to Corruption sign, I used to put it up.					
15. I tag my friends on the pictures or photos of the charity event so that it gets viewed instantly at their page...it's much easier and faster than to write an email.					
16. Sometimes when I need to call someone for work and to promote our project against crime, and I don't really know these people but because they are on Facebook, it's easy to get their email address or sometimes they even have their handphone numbers...all I did was just search their name and it will show most of the time.					
17. More and more people are sharing stories. One of my friends who's girlfriend was almost kidnapped at a shopping centre, I think something like 17,000 are sharing the story.					
18. I think many, many, many Malaysians do not understand each other's perspective so I think social media have the ability to share the perspective to understand that to a greater degree. It's sort of like a unity platform so to say.					
19. I support in keeping the environment like Mother Nature, I sign online petitions when I get to know about it as I read on it on Facebook. Many times, my friends will share links to these kind of petition sites, so I just click on it and click the sign button to show my support. Like the Bukit Kiara case, where they wanted to destroy the park to make way for buildings... we got to know it from Facebook and we went there to support the event to stop the park from being closed down.					
20. For crime, people warn each other, when crime happens, when people almost got kidnapped or even harmed, they [the victims] send Twitters, posts on Facebook, mass emails and within 2 days, everybody knows the modus operandi of the snatch theft, or a kidnapper. I think this distribution of information makes the public more cautious, more aware of what to avoid, places to avoid, or places with crime. So I think this is an example of citizens helping one another					
21. It's nice to talk to other people on Facebook. We get a change to exchange ideas, especially when we have a group involved. For example, our project to raise awareness on anger management...what we did was we met online on every Wednesday for about an hour for a few weeks to try to get some ideas out on how to have the campaign. Makes you feel like you belong to a mini community on Facebook.					

Appendix 7, continued

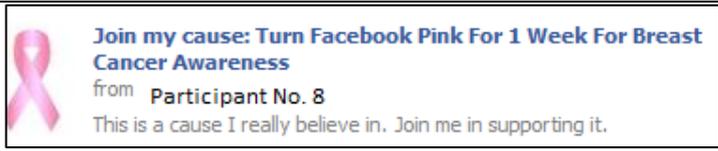
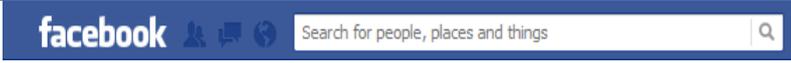
Excerpts	Modes				
	Collection of Information	Publication of Information	Dialogue	Coordination of Action	Lobbying decision makers
<p><i>Instruction:</i></p> <p>Kindly indicate with a single check [√] next to the mode that you feel is best associated with the numbered excerpts below:</p>					
22. Most of them [volunteers] actually come from the Facebook website, we just tag the event, and they come. Because we have this club Penyayang at the local universities, even at UM, so we just tag, and they come. There are many students that on Facebook from these universities, so we just need to tag.					
23. It has to be the whole package when you tweet. I tweet about social issues, politics, soccer, football, I support Liver Pool, so I talk about football. I tweet about the Olympics. I tweet about traffic, about food.. and people will tweet back what they think of your tweets. Sometimes it gets to level like a conversation is going on.					
24. My articles on civic awareness, what we need to do to help in our community...values... are posted on the sites.					
25. When I support some social events online, like education or a change in some policy for better education, I will give my support to it...if it's an online petition, I will sign it, if it's a gathering I go.					
26. We used to put up all the social problems we encountered by the public or those that come to us on our website...including Facebook.					
27. I'm also the [left blank on purpose to protect interviewee confidentiality] for the International Social Media Chambers, for all my other stuff, I get a lot of people, whenever I organize stuff, they [participants] come willingly to support.					
28. I normally will show my support by putting my logo on my profile...like for a cleaner and fairer election to come					
29. People can meet to discuss ideas, whether it is for a community project or for just about anything.					
30. Our youth share some wisdom on how they can help combat crime and they post such ideas and opinions on Facebook. They talk about it a lot on Facebook, they want to do something					
31. Facebook makes arranging work so much easier...based on my experience..and much cheaper too.					
32. I support projects that protect women against abuse and against teenage pregnancy stigma...and harsher punishment for those who abuse women.					
33. I follow some of the links on my [Facebook wall], on women issues or mother issues...I tend to focus on that a lot...yes, some of these issues are those warnings posted by friends on child kidnapping, safety for children.					
34. We just tag the event on Facebook, like building a garden for the old folks home and many of the volunteers come, mostly are students who get the information from their universities which are linked to our Facebook page as well...we are part of the "Do good" programme..					
35. I just tag and blast the project on my Facebook when I need volunteers to come and participate in combating crime or even to clean up the beach.					
36. Two years now, I remember the last time, we had a Social Media Week. We raised funds for the Yayasan Chow Kit... Yes. I think we manage to raise a few thousand...We didn't give cash, we gave milk. So, that's an example of social media activism.					

Appendix 7, continued

Excerpts	Modes				
	Collection of Information	Publication of Information	Dialogue	Coordination of Action	Lobbying decision makers
<p><i>Instruction:</i></p> <p>Kindly indicate with a single check [√] next to the mode that you feel is best associated with the numbered excerpts below:</p>					
37. I look at the links posted...some of these issues are about the attitudes or behavior or others which are rather intriguing and bizarre...For example, someone posted on how rude service was at a restaurant, or a video shared on a road bully.					
38. I follow some of my friends' posted links on some of the issues, especially the political ones					
39. I read the links posted on my wall and some on my friends' [Facebook] wall on issues.					
40. I know that social media, especially Twitter, people try to connect, check on what other people are doing and make new friends every day. Different groups have come together using this thing called Twitups and they meet each other.... myself have made a lot of new friends using Twitter, face to face, you know, because we share the same interest. So we constantly are checking on each other's' posts.					
41. I posted the famine campaign on my Facebook and people to respond...most of them were enquiries...then some would eventually turn up for the event and make their contribution to support the event.					
42. I read postings of others, see what they are up to, just to keep myself up to date on my circle of friends, or those that I have long lost contact with... Sometimes when I come across someone who is organizing some event such as one , while back, there was a get together to raise money for a Chinese school in my home town, which I was keen in and I went.					
43. I read the shared news, the ones posted by other friends...examples include for justice.					
44. I like to like at my friends' status...see what they are doing, where did they go and who are they with now or what types of [social] projects they are involved in now.					
45. I know that social media, especially Twitter, people try to connect, check on what other people are doing and make new friends every day. Different groups have come together using this thing called Twitups and they meet each other.... myself have made a lot of new friends using Twitter, face to face, you know, because we share the same interest. So we constantly are checking on each other's' posts.					
46. Sometimes when I need to call someone for work and to promote our project against crime, and I don't really know these people but because they are on Facebook, it's easy to get their email address or sometimes they even have their handphone numbers...all I did was just search their name and it will show most of the time.					
47. When I need to look for something, for example a topic on how to promote activism or to find a contact that can help me out with a project we are doing, I just Twitter it to ask others or find it on Facebook.					
48. I post the World Vision event on my [Facebook] wall, and encourage people to come and contribute and support.					

Appendix 8 Example of intra-coder and inter-coder reliability matrix for the online civic engagement behavior modes in web analysis.

Excerpts	Modes				
	Collection of Information	Publication of Information	Dialogue	Coordination of Action	Lobbying decision makers
<p><i>Instruction:</i></p> <p>Based on the images presented, kindly indicate with a single check [√] next to the mode that you feel is best associated with the numbered images below:</p>					
1. Image 1					
2. Image 2					
3. Image 3					
4. Image 4					
5. Image 5					
6. Image 6					
7. Image 7					
8. Image 8					
9. Image 9					
10. Image 10					

Image	Image label						
	Image 1						
<p>Participant No. 5 Oncology group fundraising Workshop</p> 	Image 2						
	Image 3						
<p>Articles by Board Of Trustees</p> <table border="1"> <thead> <tr> <th>Date Posted</th> <th>Articles</th> </tr> </thead> <tbody> <tr> <td>18.6.2012</td> <td>Raising Retirement Age Is Beneficial</td> </tr> <tr> <td>5.6.2012</td> <td>Local Authorities must meet people's aspirations</td> </tr> </tbody> </table>	Date Posted	Articles	18.6.2012	Raising Retirement Age Is Beneficial	5.6.2012	Local Authorities must meet people's aspirations	Image 4
Date Posted	Articles						
18.6.2012	Raising Retirement Age Is Beneficial						
5.6.2012	Local Authorities must meet people's aspirations						
 <p>(on profile photo)</p>	Image 5						

Note: This is only part of the intra-coder and inter-coder reliability matrix, the actual list continues until image no. 31. What is presented here is for illustration purposes.

Appendix 9 Scale Validation Matrix 1



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Scale Validation

Dear Expert,

This study seeks to understand the level of online civic engagement among social media users in light of the current prevalent social issues. Online civic engagement is defined as the use of the Internet in support of an agenda or cause and includes five modes of Internet activism: collection of information, publication of information, dialogue, coordinating actions and lobbying decision makers.

This study aims to test the construct validity of a survey research instrument. Findings of this expert study will assist in the development of a survey targeted at social media users.

I seek your assistance in testing the construct validity of a survey research instrument. This exercise should take about 10 minutes of your time. On the following page, measures of the modes are listed in the left column. The subsequent columns represent the constructs being measured. Kindly indicate with a single check [] next to the mode that you feel are best associated with the measures.

If you are of the opinion that the measure does not reflect any of the listed modes, kindly suggest an appropriate mode and its definition. Any comments and suggestions are very much appreciated.

The modes of interest are defined below:

<i>Collection of Information</i>	Reading and/or searching for information pertaining to social issues or people related in the issues using social media.
<i>Publication of Information</i>	Constructing websites and/or publishing materials on social issues including emails, post links, messages and articles using social media.
<i>Dialogue</i>	Using social media to share opinions on public matters in a conversational manner.
<i>Coordination of Action</i>	Forming coalitions, coordinate and/or organizing activities that address social issues using social media.
<i>Lobbying decision makers</i>	A social media effort that calls for a respond or action from social media users to pressure the government or those in charge to make a change to address a social issue.

Measures	Construct				
	Collection of Information	Publication of Information	Dialogue	Coordination of Action	Lobbying decision makers
1. Read posted news on social issues.					
2. Search for contact information.					
3. Search for fuller versions of news.					
4. Read other users' profiles on issues.					
5. Find users with similar interests on issues.					
6. Post links on social issues.					
7. Share experiences on social issues.					
8. Post images of social issues.					
9. Post news on social issues.					
10. Send information on social issues to followers.					
11. Persuade others to join a community event.					
12. Talk about ideas to solve social issues.					
13. Participate in online discussion groups on social issues.					
14. Exchange opinions on social issues using chat function.					
15. Plan activities on social issues.					
16. Create social event invitations.					
17. Confirm assistance with others on social issues.					
18. Coordinate community activities.					
19. Email a politician on a social issue.					
20. Submit a complaint to an official.					
21. Make a donation to support a social issue.					
22. Sign up as a volunteer.					
23. Sign a petition.					
24. Change your profile to a caption supporting a social issue.					
25. Vote for an issue.					

Kindly comment on the construct and its definition.

Do you have any other comments?

Thank you for your kind assistance.

Researcher's contact details:

Researcher: Anne Marie Warren, Email address: annemw7@siswa.um.edu.my

Appendix 10 Scale Validation Matrix 2



Scale Validation

Dear Expert,

This study aims to test the construct validity and the naming suitability of the constructs. I seek your assistance in testing the two constructs: civic expressions and civic actions. This exercise should take about 5 minutes of your time. On the following page, measures of the modes are listed in the left column. The subsequent columns represent the constructs being measured. Kindly indicate with a single check [] next to the mode that you feel are best associated with the measures.

If you are of the opinion that the measure does not reflect any of the listed modes, kindly suggest an appropriate mode and its definition. Any comments and suggestions are very much appreciated.

Definition of online civic engagement behaviour:

The use of the Internet in support of an agenda or cause and includes two modes of civic communications, which are, civic expressions and civic actions. The modes are as follows:

Modes	Explanations
Civic expressions	The forms of civic expressions include: <ul style="list-style-type: none">• Constructing websites and/or publishing materials on social issues including emails, post links, messages and articles using social media.• Using social media to share opinions on public matters in a conversational manner.
Civic actions	The forms of civic actions include: <ul style="list-style-type: none">• Forming coalitions, coordinating and/or organizing activities that address social issues using social media• A social media effort that calls for a response and/or to pressure authorities in charge to address a social issue.

Measures	Modes	
	Civic Expressions	Civic Actions
1. Post links on social issues.		
2. Post images/videos of social issues.		
3. Post news on social issues.		
4. Share experiences on social issues.		
5. Exchange opinions on social issues.		
6. Create social issues related event invitations.		
7. Confirm assistance with others on social issues.		
8. Plan activities on social issues with others.		
9. Make a donation.		
10. Sign a petition.		
11. Vote for a cause.		
12. Submit a complaint to an official.		

Kindly comment on the construct and its definition.

Do you have any other comments?

Thank you for your kind assistance.

Researcher's contact details:

Researcher: Anne Marie Warren, Email address: annemw7@siswa.um.edu.my

Appendix 11 Phase 3 Development of New Scale Survey



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HOW CONCERNED ARE YOU?

Dear Sir/Madam,

As part of the 13 million-population of Facebook users in Malaysia, I invite you to take part in a study that explores the level of online civic participation in light of the current prevalent social issues (crime, lack of moral values and disengagement from civic matters and quality of education). Online civic engagement is the use of the Internet in support of an agenda or cause. This is a pilot test for a part of the survey research instrument. Findings of this study will assist in the development of new measures for online civic engagement behaviour. I seek your assistance in completing this short survey. This exercise should take about 5 minutes.

This research is a study undertaken by a student of the Doctor of Philosophy (PhD) programme at the Faculty of Business and Accountancy, University of Malaya. Responses from participants will be confidential. Data collected will be used for educational purposes only.

Should there be any enquiries, you may contact the supervisors, Professor Dr. Ainin Sulaiman (ainins@um.edu.my, 603-79673853) and Dr Noor Ismawati Jaafar (isma_jaafar@um.edu.my, 603-79673969) or the researcher, Anne Marie (annemw7@siswa.um.edu.my).

Thank you.

Best regards,

Anne Marie

Ms Anne Marie Warren (Researcher)
University of Malaya

PILOT SURVEY

Please complete the following section, by indicating only **one answer** with an “X” or [☒]. Keep in mind there are no right or wrong answers and your honest indications are important. Social issues in this context reflect on crime, disengagement on civic matters and moral values and quality of education. The indicators of the scale ratings are:

Rarely	:	About 10% of the time
Occasionally	:	About 30% of the time
Sometimes	:	About 50% of the time
Frequently	:	About 60% of the time
Usually	:	About 70% of the time
Very Often	:	More than 70% of the time

How often do you use Facebook to do the following:							
Items:	Never	Rarely	Occasionally	Sometimes	Frequently	Usually	Very Often
1. Read posted news on social issues.	<input type="checkbox"/>						
2. Search contact information of supporters.	<input type="checkbox"/>						
3. Search for fuller versions of news.	<input type="checkbox"/>						
4. Read other users’ page to get news.	<input type="checkbox"/>						
5. Post links on social issues.	<input type="checkbox"/>						
6. Post images/videos of social issues.	<input type="checkbox"/>						
7. Post news on social issues.	<input type="checkbox"/>						
8. Participate in online discussion groups on social issues.	<input type="checkbox"/>						
9. Share experiences on social issues.	<input type="checkbox"/>						
10. Exchange opinions on social issues.	<input type="checkbox"/>						
11. Create social issue related events.	<input type="checkbox"/>						
12. Confirm assistance with others on social issue events.	<input type="checkbox"/>						
13. Plan activities on social issues with others.	<input type="checkbox"/>						
14. Make a donation.	<input type="checkbox"/>						
15. Sign a petition.	<input type="checkbox"/>						
16. Vote for a cause.	<input type="checkbox"/>						
17. Submit a complaint to an official.	<input type="checkbox"/>						
In virtual settings, such as Facebook, I am...	Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
1. Aware of how I am perceived by others.	<input type="checkbox"/>						
2. Good at making myself visible with influential people in my social circle or in my organisation.	<input type="checkbox"/>						
3. Able to put myself in other people’s positions to understand their point of view.	<input type="checkbox"/>						
4. Able to socialize easily.	<input type="checkbox"/>						
5. Particularly good at sensing the motivations and hidden agendas of others.	<input type="checkbox"/>						

Were the scale indications for the scale ratings helpful? Yes No

Thank you for participating in this survey.

Appendix 12 Example of Letter to Organizational Gatekeeper

Anne Marie Warren
PhD Student
University of Malaysia
Faculty of Business and Accountancy
Department of Operations and Management Information Systems
50603 Kuala Lumpur.
Email: annemw7@siswa.um.edu.my
H/P Tel: 012-6173738

Organizational Gatekeeper's Name
Senior Manager
Kasih Sayang Foundation
Setia Corporate Tower
8A, Jalan Setia Nusantara U13/17,
Seksyen U13, 40170 Shah Alam,
Selangor Darul Ehsan.

8th February 2013

Sir/Madam,

Sub: Seeking Permission for Data Collection

I am a PhD student at University of Malaya and am investigating how Facebook is used by working adults to address prevalent social problems (crime, lack of moral values and disengagement from civic matters and quality of education). The purpose of my research is to increase our understanding the use of Facebook to foster civic efforts and its impact on virtual social skills at work and life satisfaction. I seek your kind permission to allow me or an appointed staff which I may liaise with, to distribute 10 survey questions to your staff at any date between 12th February – 5th May 2013. The survey (as attached) will take not more than 15 minutes to complete.

I sincerely hope that you will consider allowing your staff to participate in this study as an effort to document the influences and effectiveness of online civic efforts, particularly on staff's online social skills.

Please feel free to contact me with any questions. An official letter from University of Malaya confirming my studentship and study is as attached for your reference.

Thank you.

Sincerely,

Anne Marie Warren

Appendix 13 Phase 4 Survey: Invitation letter to participants



UNIVERSITY
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KUALA LUMPUR

HOW CONCERNED ARE YOU?

Dear Sir/Madam,

As part of the 13 million-population of Facebook users in Malaysia, I invite you to take part in a study that explores the level of online civic participation in light of the current prevalent social issues such as corruption, lack of moral values among citizens, kidnapping and robberies. Online civic participation is the use of the Internet in support of an agenda or cause, or broadly speaking, to address social issues. Findings of this survey will help determine what drives such participation, the level of online civic participation among citizens and its impact on their well-being. I seek your assistance in completing this survey. This exercise should take about 15 minutes of your time.

This research is a study undertaken by a student of the Doctor of Philosophy (PhD) programme at the Faculty of Business and Accountancy, University of Malaya. Responses from participants will be confidential. Data collected will be used for educational purposes only.

Should there be any enquiries, you may contact the supervisors, Professor Dr. Ainin Sulaiman (ainins@um.edu.my, 603-79673853) and Dr Noor Ismawati Jaafar (isma_jaafar@um.edu.my, 603-79673969) or the researcher, Anne Marie (annemw7@siswa.um.edu.my).

Thank you.

Best regards,

Anne Marie

Ms Anne Marie Warren (Researcher)

University of Malaya

Appendix 14 Phase 4 Survey

Social issues are plaguing society. Three prevalent social problems that have been identified include the following:

- Crime (E.g. corruption, robberies, rape, scams, theft, murder, kidnapping, drugs, abuse etc.)
- Moral values (E.g. the level of courtesy, trust, care, honesty, integrity, consideration etc. among citizens)
- Quality of Education

Based on these social issues, please complete all questions, indicating only **one answer** by a tick (e.g.). Keep in mind there are no right or wrong answers and your honest indications are important. The meanings of the scale ratings are:

Rarely	:	About 10% of the time
Occasionally	:	About 30% of the time
Sometimes	:	About 50% of the time
Frequently	:	About 60% of the time
Usually	:	About 70% of the time
Very Often	:	More than 70% of the time

A. How often do you use Facebook (FB) to do the following:	Never	Rarely	Occasionally	Sometimes	Frequently	Usually	Very Often
1. Post links on social issues.	<input type="checkbox"/>						
2. Post images/videos of social issues.	<input type="checkbox"/>						
3. Post news on social issues.	<input type="checkbox"/>						
4. Share experiences on social issues.	<input type="checkbox"/>						
5. Exchange opinions on social issues.	<input type="checkbox"/>						
6. Create social issue related event invitations.	<input type="checkbox"/>						
7. Confirm assistance with others on social issue events.	<input type="checkbox"/>						
8. Plan activities on social issues with others.	<input type="checkbox"/>						
9. Make a donation.	<input type="checkbox"/>						
10. Sign a petition.	<input type="checkbox"/>						
11. Vote for a cause.	<input type="checkbox"/>						
12. Submit a complaint to an official.	<input type="checkbox"/>						

B. Please indicate the degree to which you agree or disagree with each of the following statements:	Strongly Disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly agree
1. Most people keep promises.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Most people are honest.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Most people are trustworthy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Most people keep commitments.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Most people are reliable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. FB is a safe place to exchange information.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. FB is a reliable environment to coordinate activities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. FB handles personal information competently.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. I feel safe to post information on FB.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. FB has sufficient privacy settings.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. The government can be trusted.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Politicians can be trusted.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. The police can be trusted.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. The courts in the country can be trusted.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. The justice system is fair.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C. Engaging in social issues...	Strongly Disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly agree
1. Helps us to learn more about our country.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Is a good way to get benefits for myself and family.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Is a way to get benefits for groups that I care about.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Is a must for every citizen if we want to reduce social problems for the benefit of our nation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Helps bring the community together.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Improves my relationship with the community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Improves my status.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Improves my reputation at work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Allows me to earn respect from others at work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Increases my social standings among friends.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Makes me more popular in my social circle at work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

D. In most ways...	Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly agree
1. My life is close to my expectations.	<input type="radio"/>						
2. The conditions of my life are excellent.	<input type="radio"/>						
3. I am satisfied with my life.	<input type="radio"/>						
4. I have gotten the important things I want in life.	<input type="radio"/>						
5. If I live my life over, I would change almost nothing.	<input type="radio"/>						

E. In virtual settings, such as Facebook, I am...	Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly agree
1. Aware of how I am perceived by others.	<input type="radio"/>						
2. Good at making myself visible with influential people in my social circle or in my organisation.	<input type="radio"/>						
3. Able to put myself in other people's positions to understand their point of view.	<input type="radio"/>						
4. Able to socialize easily.	<input type="radio"/>						
5. Particularly good at sensing the motivations and hidden agendas of others.	<input type="radio"/>						

Tell me about yourself. Please tick one answer (e.g.):

Gender: Male Female

Race: Malay Chinese Indian Others

Marital Status: Single Married

Education Level: Post Graduate Graduate High Dip/Diploma High School

What age group do you belong to?

18 – 25 years old 26 – 35 years old 36 – 45 years old 46 – 55 years old 56- 65 years old

Thank you for participating in this survey.

Appendix 15 Missing Data check

Item code	Valid	Missing
Online civic engagement behaviour		
poi1	620	0
poi2	620	0
poi3	620	0
dia2	620	0
dia3	620	0
coa1	620	0
coa2	620	0
coa3	620	0
ldm1	620	0
ldm2	620	0
ldm3	620	0
ldm4	620	0
Group incentives		
incG1	620	0
incG2	620	0
incG3	620	0
incG4	620	0
incG5	620	0
incG6	620	0
Reputation		
rep1	620	0
rep2	620	0
rep3	620	0
rep4	620	0
rep5	620	0
Trust propensity		
truP1	620	0
truP2	620	0
truP3	620	0
truP4	620	0
truP5	620	0

Item code	Valid	Missing
Trust in social media		
truS6	620	0
truS7	620	0
truS8	620	0
truS9	620	0
truS10	620	0
Trust in institutions		
truI11	620	0
truI12	620	0
truI13	620	0
truI14	620	0
truI15	620	0
Satisfaction in life		
sat1	620	0
sat2	620	0
sat3	620	0
sat4	620	0
sat5	620	0
Virtual social skills		
vss1	620	0
vss2	620	0
vss3	620	0
vss4	620	0
vss5	620	0
Demographics		
gender	620	0
race	620	0
education	620	0
age	620	0
marital status	620	0

Appendix 16 Outliers

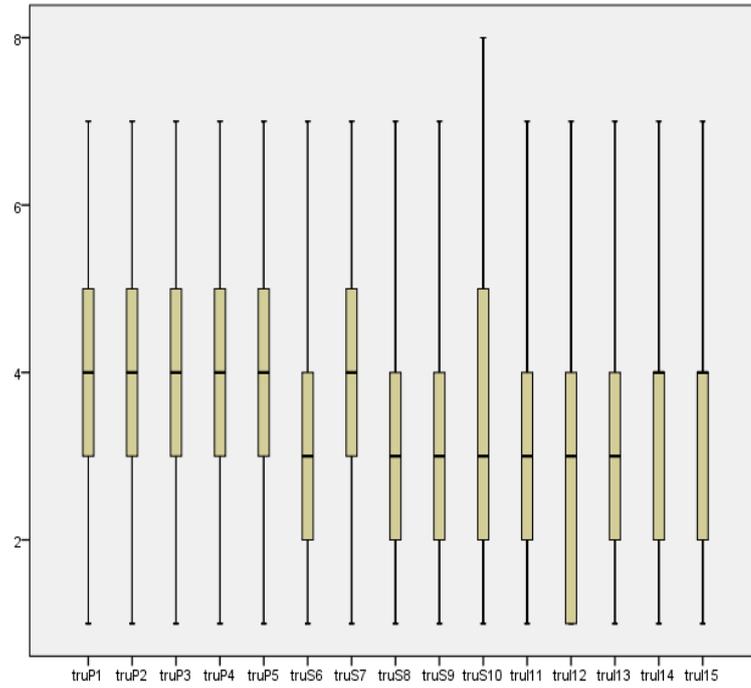


Figure 8.2.1 No outliers for trust propensity and trust in institutions

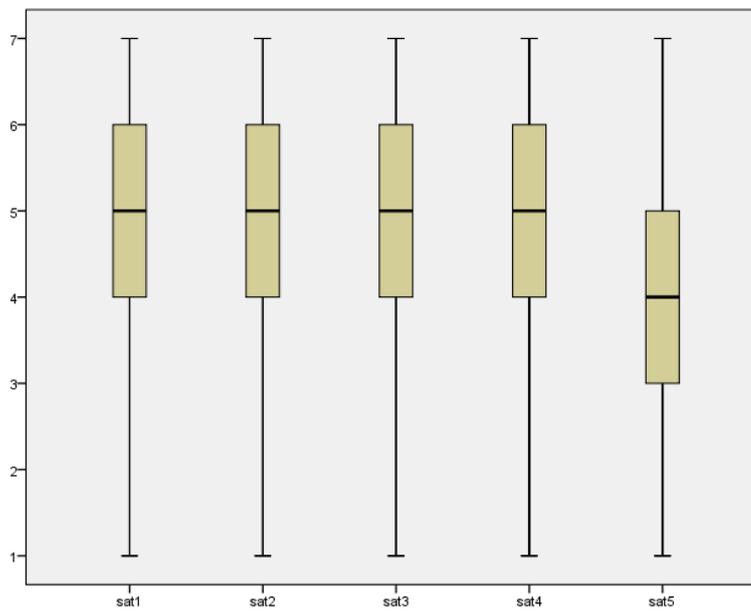


Figure 8.2.2 No outliers for satisfaction in life

Appendix 16, continued

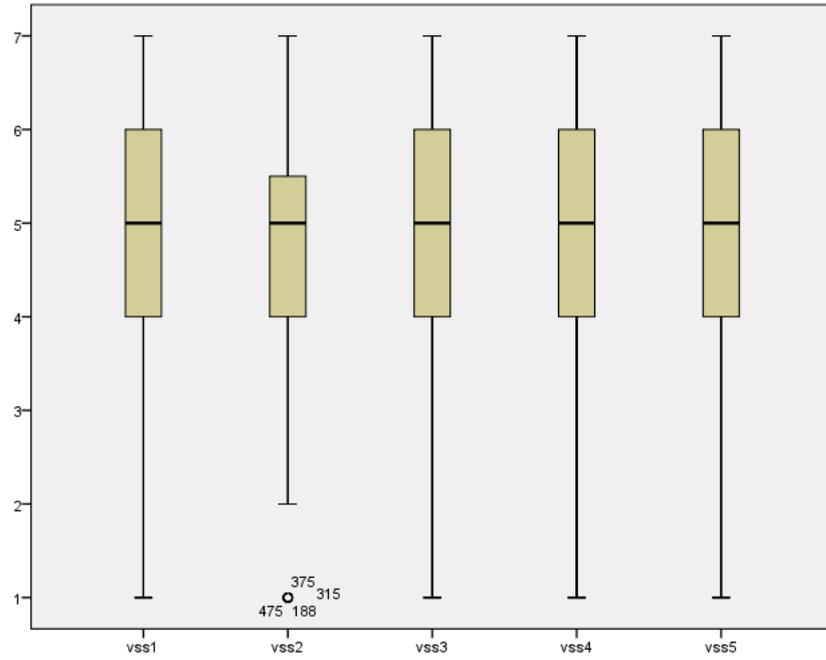


Figure 8.2.3 Outliers identified for virtual social skills

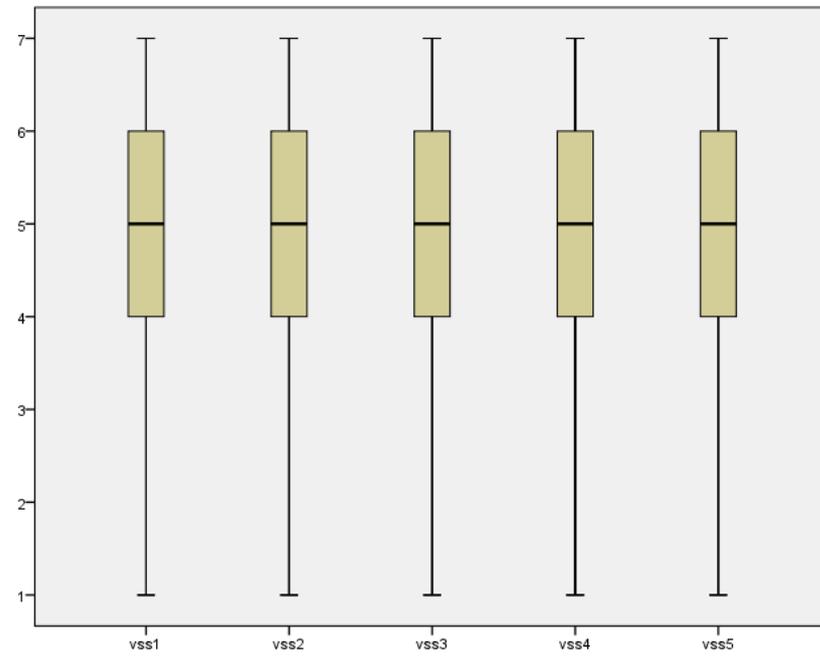


Figure 8.2.4 No outliers for virtual social skills (After removing case 375)

Appendix 16, continued

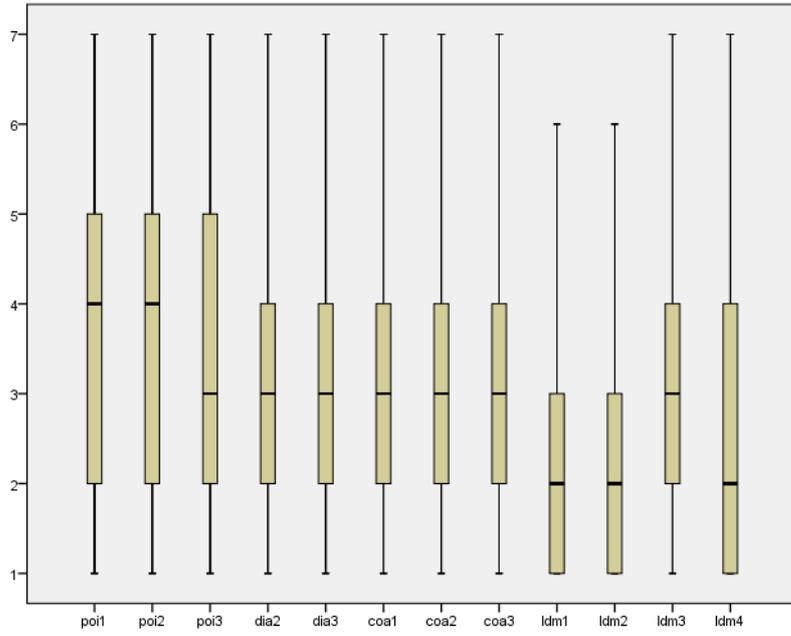


Figure 8.2.5 No Outliers for civic expressions and civic actions (619 cases).

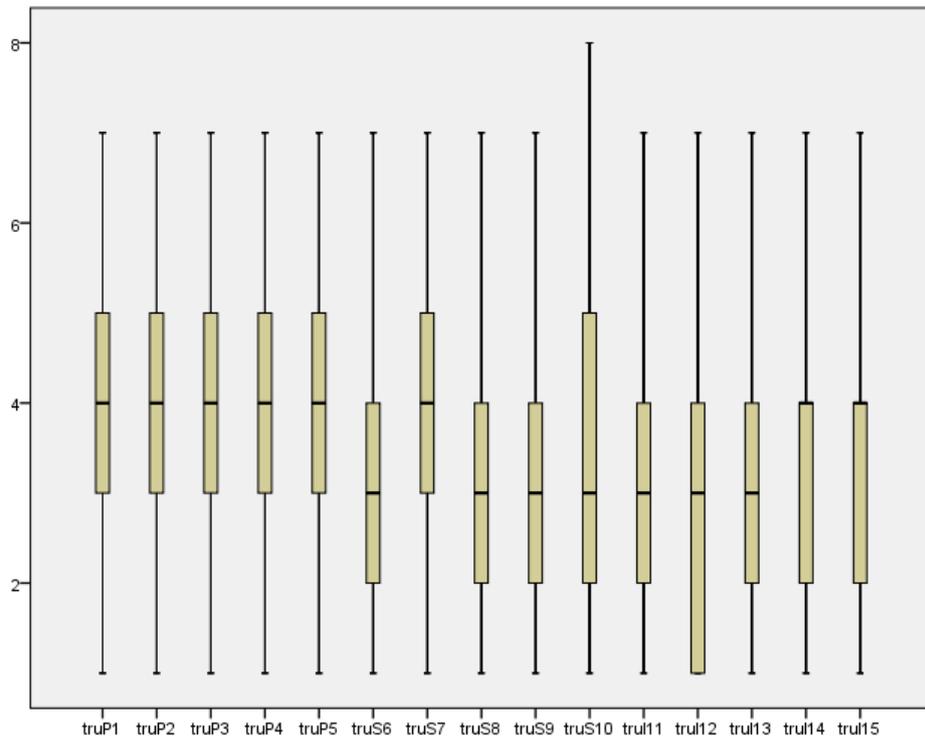


Figure 8.2.6 No outliers – Overall check for trust propensity, trust in social media and trust in institutions (619 cases).

Appendix 16, continued

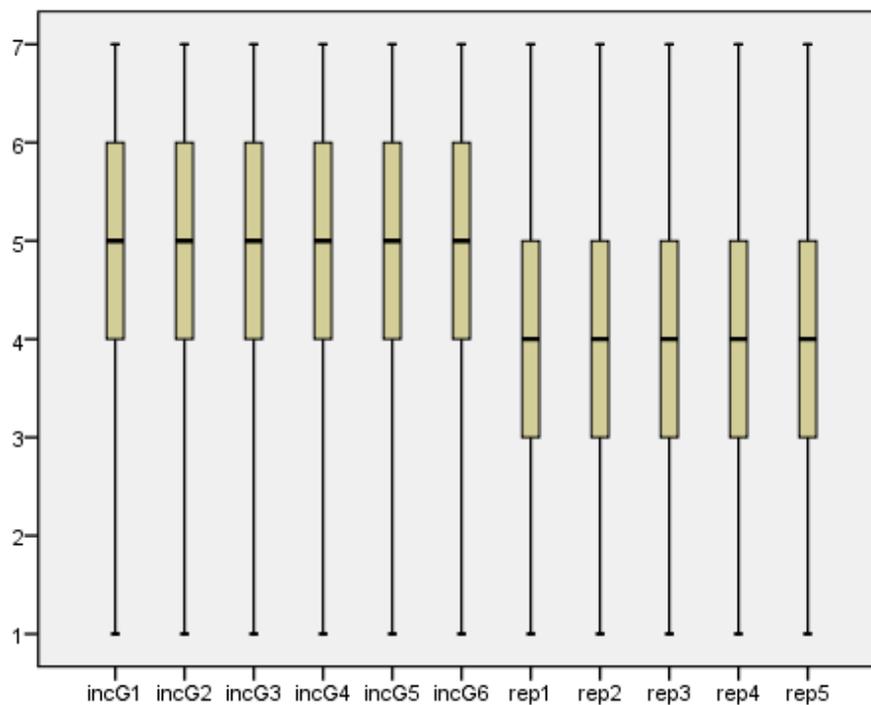


Figure 8.2.7 No outliers – overall check for group incentives and reputation (619 cases).

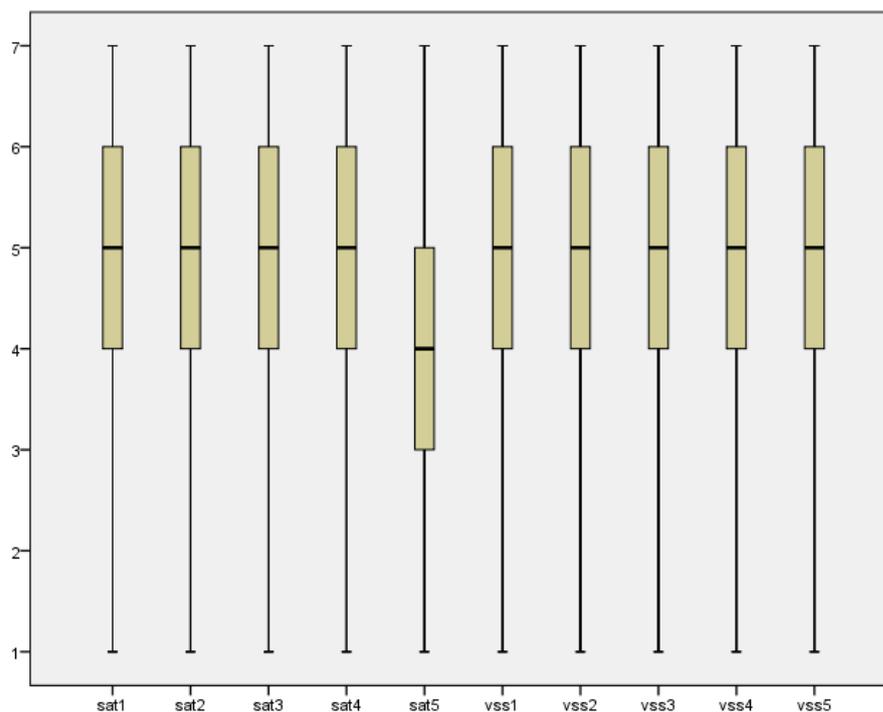


Figure 8.2.8 No outliers – overall check for satisfaction in life and virtual social skills (619 cases).

Appendix 17 Normality Skewness and Kurtosis

Item	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
poi1	0.178	0.098	-0.921	0.196
poi2	0.171	0.098	-0.834	0.196
poi3	0.299	0.098	-0.779	0.196
dia2	0.569	0.098	-0.478	0.196
dia3	0.385	0.098	-0.565	0.196
coa1	0.446	0.098	-0.749	0.196
coa2	0.544	0.098	-0.665	0.196
coa3	0.530	0.098	-0.621	0.196
ldm1	1.039	0.098	0.272	0.196
ldm2	0.900	0.098	-0.203	0.196
ldm3	0.609	0.098	-0.504	0.196
ldm4	1.051	0.098	0.340	0.196
truP1	-0.232	0.098	-0.319	0.196
truP2	-0.215	0.098	-0.684	0.196
truP3	-0.154	0.098	-0.692	0.196
truP4	-0.183	0.098	-0.471	0.196
truP5	-0.189	0.098	-0.420	0.196
truS6	0.522	0.098	-0.604	0.196
truS7	-0.314	0.098	-0.767	0.196
truS8	0.128	0.098	-0.731	0.196
truS9	0.157	0.098	-0.952	0.196
truS10	0.102	0.098	-0.839	0.196
truI11	0.279	0.098	-0.649	0.196
truI12	0.446	0.098	-0.684	0.196
truI13	0.268	0.098	-0.757	0.196
truI14	0.068	0.098	-0.714	0.196
truI15	0.183	0.098	-0.682	0.196
rep5	-0.144	0.098	-0.590	0.196
sat1	-0.679	0.098	0.133	0.196
sat2	-0.616	0.098	0.030	0.196
sat3	-0.710	0.098	0.173	0.196
sat4	-0.546	0.098	-0.273	0.196
sat5	-0.204	0.098	-0.678	0.196
vss1	-0.738	0.098	0.450	0.196
vss2	-0.745	0.098	0.562	0.196
vss3	-0.796	0.098	0.628	0.196
vss4	-0.726	0.098	0.636	0.196
vss5	-0.755	0.098	0.634	0.196

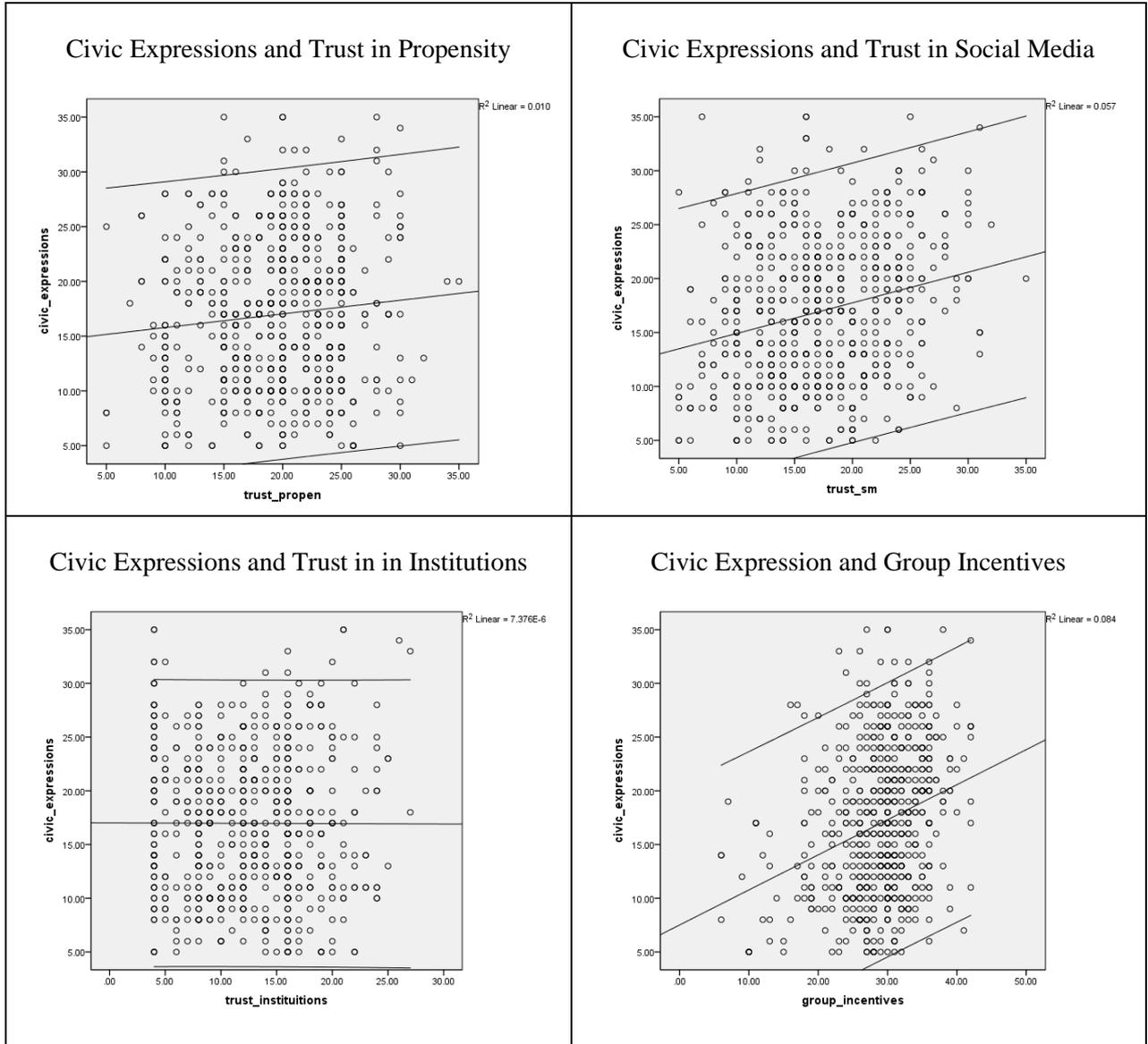
Appendix 17 continued

Variable	skew	c.r.	kurtosis	c.r.
Group incentives	-0.90	-9.10	1.66	8.44
Virtual social skills	-0.80	-8.10	1.19	6.02
Trust in social media	0.16	1.64	-0.45	-2.27
Trust propensity	-0.22	-2.24	-0.29	-1.48
Trust in institutions	0.12	1.26	-0.73	-3.71
Reputation	-0.30	-3.05	-0.33	-1.66
Satisfaction	-0.49	-5.02	0.11	0.53
Civic Actions	0.57	5.82	-0.38	-1.93
Civic Expressions	0.26	2.60	-0.71	-3.59
Multivariate			11.97	10.58

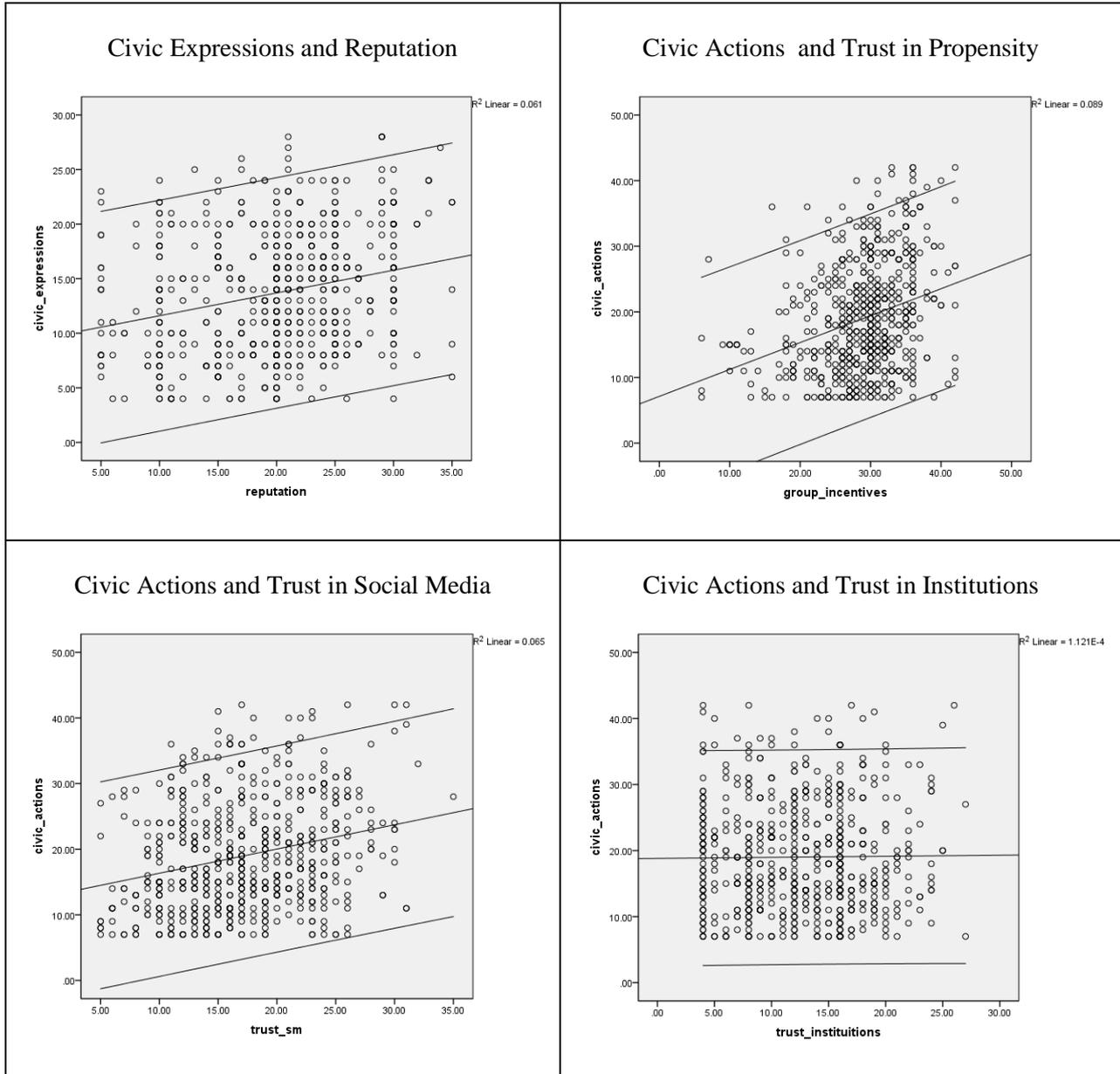
Appendix 18 Test of linearity

Item No.	Variables	Type of Test	Sig.	P-value	Remark
1.	satisfaction in life*civic expressions	ANOVA Test for Linearity	0.223	>0.05	Linear
2.	virtual social skills*civic expressions	ANOVA Test for Linearity	0.328	>0.05	Linear
3.	satisfaction in life*civic actions	ANOVA Test for Linearity	0.218	>0.05	Linear
4.	virtual social skills*civic actions	ANOVA Test for Linearity	0.929	>0.05	Linear
5.	satisfaction in life*virtual social skills	ANOVA Test for Linearity	0.171	>0.05	Linear
6.	civic expressions*group incentives	ANOVA Test for Linearity	0.375	>0.05	Linear
7.	civic expressions*trust in social media	ANOVA Test for Linearity	0.060	>0.05	Linear
8.	civic actions* trust in social media	ANOVA Test for Linearity	0.630	>0.05	Linear
9.	civic actions* group incentives	ANOVA Test for Linearity	0.095	>0.05	Linear
10.	civic expressions*trust in institutions	ANOVA Test for Linearity	0.116	>0.05	Linear
11.	civic actions*trust in institutions	ANOVA Test for Linearity	0.095	>0.05	Linear
12.	civic expressions*trust propensity	OLS (linear regression)	0.015	<0.05	Linear
13.	civic expressions*reputation	OLS (linear regression)	0.000	<0.05	Linear
14.	civic actions*trust propensity	OLS (linear regression)	0.000	<0.05	Linear
15.	civic actions*reputation	OLS (linear regression)	0.000	<0.05	Linear
16.	civic expressions*civic actions	OLS (linear regression)	0.000	<0.05	Linear

Appendix 19 Homoscedasticity test using scatterplots

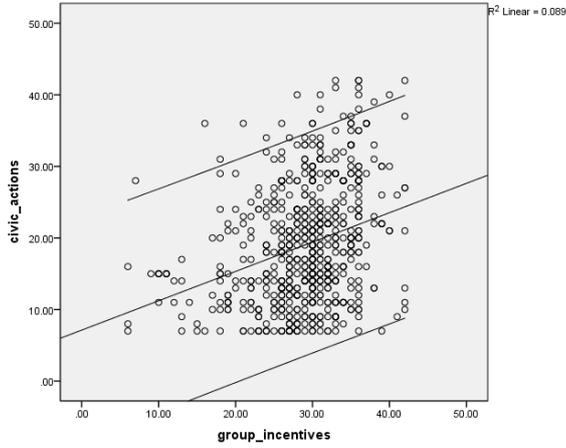


Appendix 19, continued

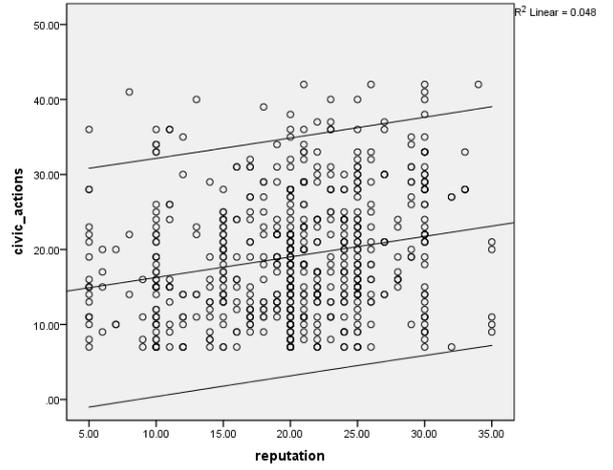


Appendix 19, continued

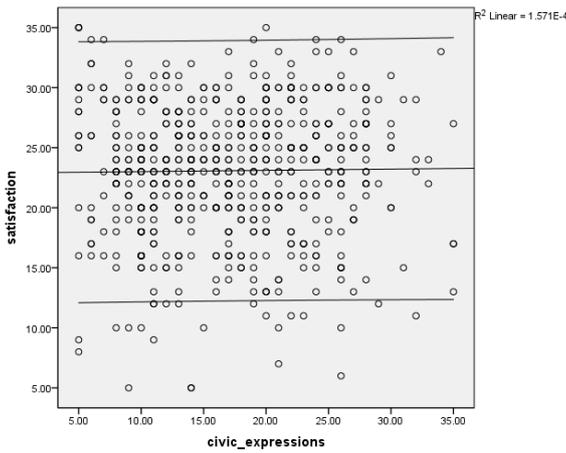
Civic Actions and Group Incentives



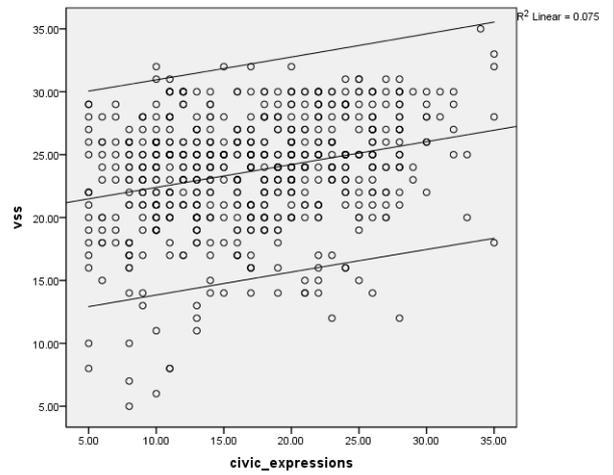
Civic Actions and Reputation



Civic Expressions and Satisfaction in Life

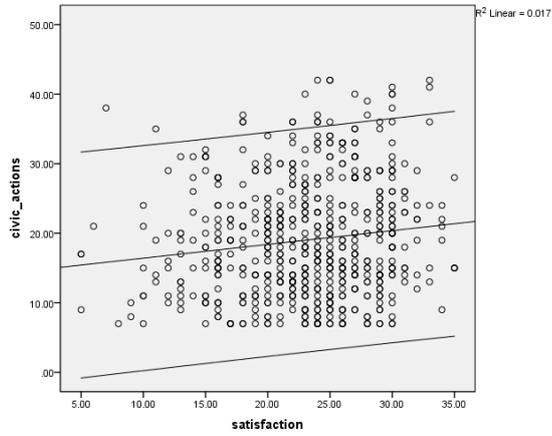


Civic Expressions and Virtual Social Skills

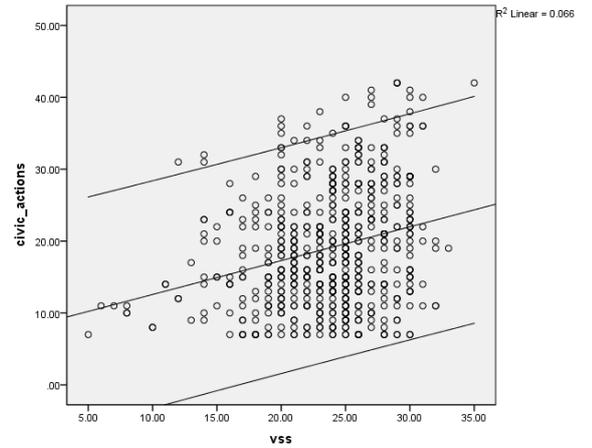


Appendix 19, continued

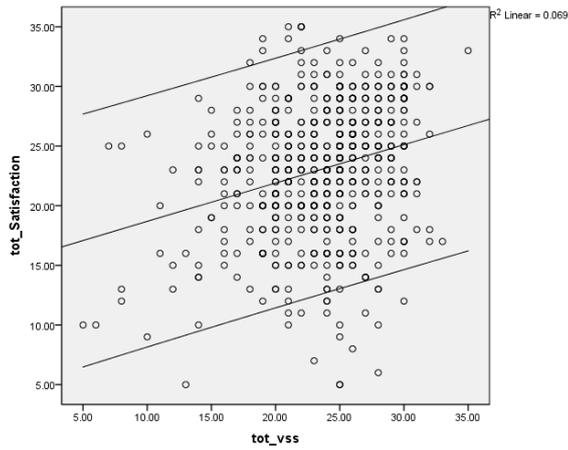
Civic Actions and Satisfaction in Life



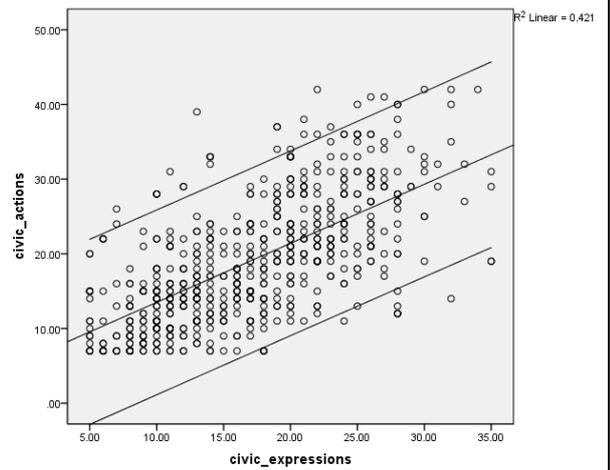
Civic Actions and Virtual Social Skills



Satisfaction in Life and Virtual Social Skills



Civic Actions and Civic Expressions



Appendix 20 Multicollinearity results

Coefficients

Model		Collinearity Statistics	
		Tolerance	VIF
1	trust propensity	.800	1.250
	trust in social media	.664	1.506
	trust in institutions	.810	1.235
	group incentives	.576	1.735
	reputation	.577	1.733
	civic expressions	.602	1.660
	civic actions	.588	1.702
	virtual social skills	.791	1.263

Dependent variable: satisfaction in life

Coefficients

Model		Collinearity Statistics	
		Tolerance	VIF
1	trust in social media	.706	1.414
	trust in institutions	.813	1.228
	group incentives	.577	1.734
	reputation	.577	1.733
	civic expressions	.599	1.843
	civic actions	.594	1.826
	virtual social skills	.765	1.312
	satisfaction in life	.869	1.153

Dependent variable: trust propensity

Coefficients

Model		Collinearity Statistics	
		Tolerance	VIF
1	trust in institutions	.853	1.183
	group incentives	.582	1.716
	reputation	.586	1.707
	civic expressions	.599	1.843
	civic actions	.584	1.859
	virtual social skills	.773	1.299
	satisfaction in life	.852	1.181
	trust propensity	.834	1.223

Dependent variable: trust in social media

Appendix 20, continued

Coefficients

Model		Collinearity Statistics	
		Tolerance	VIF
1	group incentives	.578	1.731
	reputation	.584	1.713
	civic expressions	.596	1.850
	civic actions	.586	1.851
	virtual social skills	.769	1.305
	satisfaction in life	.865	1.164
	trust propensity	.799	1.273
	trust in social media	.710	1.419

Dependent variable: trust in institutions

Coefficients

Model		Collinearity Statistics	
		Tolerance	VIF
1	reputation	.773	1.296
	civic expressions	.594	1.851
	civic actions	.590	1.847
	virtual social skills	.773	1.298
	satisfaction in life	.853	1.178
	trust propensity	.786	1.303
	trust in social media	.672	1.493
	trust in institutions	.800	1.255

Dependent variable: group incentives

Coefficients

Model		Collinearity Statistics	
		Tolerance	VIF
1	civic expressions	.598	1.841
	civic actions	.584	1.860
	virtual social skills	.779	1.288
	satisfaction in life	.851	1.181
	trust propensity	.783	1.307
	trust in social media	.674	1.489
	trust in institutions	.806	1.246
	group incentives	.770	1.300

Dependent variable: reputation

Appendix 20, continued

Coefficients

Model		Collinearity Statistics	
		Tolerance	VIF
1	civic actions	.845	1.187
	virtual social skills	.773	1.294
	satisfaction in life	.863	1.162
	trust propensity	.790	1.299
	trust in social media	.669	1.503
	trust in institutions	.799	1.258
	group incentives	.575	1.736
	reputation	.581	1.721

Dependent variable: civic expressions

Coefficients

Model		Collinearity Statistics	
		Tolerance	VIF
1	virtual social skills	.767	1.310
	satisfaction in life	.859	1.170
	trust propensity	.799	1.280
	trust in social media	.665	1.508
	trust in institutions	.802	1.252
	group incentives	.582	1.723
	reputation	.578	1.729
	civic expressions	.862	1.180

Dependent variable: civic actions

Coefficients

Model		Collinearity Statistics	
		Tolerance	VIF
1	satisfaction in life	.881	1.140
	trust propensity	.784	1.306
	trust in social media	.670	1.496
	trust in institutions	.801	1.254
	group incentives	.582	1.720
	reputation	.588	1.701
	civic expressions	.600	1.828
	civic actions	.585	1.861

Dependent variable: virtual social skills

Appendix 21 Mean analysis on demographics for online civic engagement behaviour

Variable	Construct	Item	N	Mean
Gender	Civic Expressions	Male	308	3.54
		Female	311	3.30
	Civic Actions	Male	308	2.84
		Female	311	2.69
Marital Status	Civic Expressions	Single	327	3.46
		Married	292	3.38
	Civic Actions	Single	327	2.80
		Married	292	2.72
Race	Civic Expressions	Malay	337	3.46
		Chinese	151	3.26
		Indian	45	3.52
		Others	86	3.51
	Civic Actions	Malay	337	2.81
		Chinese	151	2.62
		Indian	45	2.84
		Others	86	2.81
Education	Civic Expressions	High school	100	3.40
		Diploma	145	3.47
		Degree	245	3.45
		Postgraduate	129	3.34
	Civic Actions	High school	100	2.60
		Diploma	145	2.85
		Degree	245	2.86
		Postgraduate	129	2.63
Age	Civic expressions	18-25	116	3.63
		26-35	304	3.58
		36-45	121	3.08
		46-55	66	3.14
		56-65	12	2.50
	Civic expressions	18-25	116	3.05
		26-35	304	2.83
		36-45	121	2.50
		46-55	66	2.55
		56-65	12	2.17

Appendix 21, continued

T-test Results - Gender

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Civic Expressions	Equal variances assumed	.020	.888	2.132	617	.033	0.237	0.111	0.019	0.455
	Equal variances not assumed			2.131	616.164	.033	0.237	0.111	0.019	0.455
Civic Actions	Equal variances assumed	.238	.626	1.575	617	.116	0.154	0.098	-0.038	0.347
	Equal variances not assumed			1.576	616.180	.116	0.154	0.098	-0.038	0.347

T-test Results - Marital Status

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Civic Expressions	Equal variances assumed	.347	.556	.805	617	.421	0.090	0.112	-0.129	0.309
	Equal variances not assumed			.803	603.587	.422	0.090	0.112	-0.130	0.309
Civic Actions	Equal variances assumed	.308	.579	.812	617	.417	0.080	0.098	-0.113	0.273
	Equal variances not assumed			.812	608.546	.417	0.080	0.098	-0.113	0.273

Appendix 21, continued

ANOVA Results - Race

		Sum of Squares	df	Mean Square	F	Sig.
Civic Expressions	Between Groups	5.621	3	1.874	.976	.404
	Within Groups	1180.657	615	1.920		
	Total	1186.278	618			
Civic Actions	Between Groups	4.348	3	1.449	.972	.406
	Within Groups	917.270	615	1.491		
	Total	921.618	618			

ANOVA Results - Education

		Sum of Squares	df	Mean Square	F	Sig.
Civic Expressions	Between Groups	1.511	3	.504	.261	.853
	Within Groups	1184.767	615	1.926		
	Total	1186.278	618			
Civic Actions	Between Groups	8.245	3	2.748	1.851	.137
	Within Groups	913.372	615	1.485		
	Total	921.618	618			

ANOVA Results - Age

		Sum of Squares	df	Mean Square	F	Sig.
Civic Expressions	Between Groups	42.148	4	10.537	5.655	.000
	Within Groups	1144.130	614	1.863		
	Total	1186.278	618			
Civic Actions	Between Groups	27.151	4	6.788	4.659	.001
	Within Groups	894.467	614	1.457		
	Total	921.618	618			

Appendix 21, continued

Tukey HSD

Dependent Variable	(I) age	(J) age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Civic Expressions	18-25	26-35	0.051	0.149	.997	-0.356	0.459
		36-45	0.553	0.177	.016	0.068	1.038
		46-55	0.485	0.210	.144	-0.090	1.061
		56-65	1.129	0.414	.051	-0.003	2.262
	26-35	18-25	-0.051	0.149	.997	-0.459	0.356
		36-45	0.502	0.147	.006	0.100	0.903
		46-55	0.434	0.185	.133	-0.073	0.941
		56-65	1.078	0.402	.058	-0.021	2.177
	36-45	18-25	-0.553	0.177	.016	-1.038	-0.068
		26-35	-0.502	0.147	.006	-0.903	-0.100
		46-55	-0.067	0.209	.998	-0.639	0.504
		56-65	0.576	0.413	.631	-0.554	1.707
	46-55	18-25	-0.485	0.210	.144	-1.061	0.090
		26-35	-0.434	0.185	.133	-0.941	0.073
		36-45	0.067	0.209	.998	-0.504	0.639
		56-65	0.644	0.428	.561	-0.528	1.816
	56-65	18-25	-1.129	0.414	.051	-2.262	0.003
		26-35	-1.078	0.402	.058	-2.177	0.021
		36-45	-0.576	0.413	.631	-1.707	0.554
		46-55	-0.644	0.428	.561	-1.816	0.528
Civic Actions	18-25	26-35	0.220	0.132	.455	-0.141	0.580
		36-45	0.557	0.157	.004	0.128	0.986
		46-55	0.502	0.186	.056	-0.008	1.011
		56 and above	0.888	0.366	.110	-0.113	1.889
	26-35	18-25	-0.220	0.132	.455	-0.580	0.141
		36-45	0.338	0.130	.071	-0.017	0.693
		46-55	0.282	0.164	.422	-0.166	0.730
		56-65	0.668	0.355	.328	-0.304	1.640
	36-45	18-25	-0.557	0.157	.004	-0.986	-0.128
		26-35	-0.338	0.130	.071	-0.693	0.017
		46-55	-0.056	0.185	.998	-0.561	0.450
		56-65	0.331	0.365	.895	-0.669	1.330
	46-55	18-25	-0.502	0.186	.056	-1.011	0.008
		26-35	-0.282	0.164	.422	-0.730	0.166
		36-45	0.056	0.185	.998	-0.450	0.561
		56-65	0.386	0.379	.846	-0.650	1.423
	56-65	18-25	-0.888	0.366	.110	-1.889	0.113
		26-35	-0.668	0.355	.328	-1.640	0.304
		36-45	-0.331	0.365	.895	-1.330	0.669
		56-65	-0.386	0.379	.846	-1.423	0.650

Appendix 22 Measurement model 1 statistical results

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	123	1320.274	543	.000	2.431
Saturated model	666	.000	0		
Independence model	36	16305.119	630	.000	25.881

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.086	.894	.870	.729
Saturated model	.000	1.000		
Independence model	.562	.267	.225	.252

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.919	.906	.951	.942	.950
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.048	.045	.051	.822
Independence model	.201	.198	.203	.000

Appendix 22, continued

Standardized Regression Weights: (Group number 1 - Default model)

	Estimate
poi2 <--- civic_expressions.	.838
poi1 <--- civic_expressions.	.849
ldm2 <--- civic_actions.	.675
ldm1 <--- civic_actions.	.749
coa3 <--- civic_actions.	.814
coa2 <--- civic_actions.	.695
coa1 <--- civic_actions.	.671
poi3 <--- civic_expressions.	.888
truP4 <--- Trust_Propensity.	.850
truP3 <--- Trust_Propensity.	.864
truP2 <--- Trust_Propensity.	.814
truP1 <--- Trust_Propensity.	.689
truS10 <--- Social_Media_Trust	.736
truS9 <--- Social_Media_Trust	.888
truS8 <--- Social_Media_Trust	.817
truI15 <--- Trust_in_Institutions.	.814
truI14 <--- Trust_in_Institutions.	.883
truI13 <--- Trust_in_Institutions.	.906
truI12 <--- Trust_in_Institutions.	.770
incG6 <--- Group_Incentives.	.946
incG5 <--- Group_Incentives.	.754
incG4 <--- Group_Incentives.	.734
rep5 <--- Reputation.	.807
sat3 <--- Satisfaction.	.762
sat2 <--- Satisfaction.	.957
sat1 <--- Satisfaction.	.808
vss5 <--- Virtual_Social_Skills.	.749
vss4 <--- Virtual_Social_Skills.	.795
vss3 <--- Virtual_Social_Skills.	.769
dia2 <--- civic_expressions.	.691
ldm3 <--- civic_actions.	.709
truP5 <--- Trust_Propensity.	.767
rep1 <--- Reputation.	.939
rep2 <--- Reputation.	.939
rep3 <--- Reputation.	.916
rep4 <--- Reputation.	.874

Appendix 22, continued

Squared Multiple Correlations: (Group number 1 - Default model)

	Estimate
truP5	.589
ldm3	.502
dia2	.477
vss3	.591
vss4	.631
vss5	.561
sat1	.652
sat2	.916
sat3	.581
rep1	.882
rep2	.882
rep3	.840
rep4	.764
rep5	.651
incG4	.538
incG5	.569
incG6	.895
truI12	.593
truI13	.821
truI14	.780
truI15	.663
truS8	.668
truS9	.789
truS10	.542
truP1	.475
truP2	.662
truP3	.746
truP4	.722
coa1	.450
coa2	.483
coa3	.662
ldm1	.560
ldm2	.455
poi1	.721
poi2	.703
poi3	.789

Appendix 23 Measurement model 2 statistical results

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	117	1350.587	549	.000	2.460
Saturated model	666	.000	0		
Independence model	36	16305.119	630	.000	25.881

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.092	.891	.868	.735
Saturated model	.000	1.000		
Independence model	.562	.267	.225	.252

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.917	.905	.949	.941	.949
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.049	.045	.052	.754
Independence model	.201	.198	.203	.000

Appendix 23, continued

Standardized Regression Weights: (Group number 1 - Default model)

		Estimate
civic_expressions.	<--- Online_CEB	.768
civic_actions.	<--- Online_CEB	.843
poi2	<--- civic_expressions.	.839
poi1	<--- civic_expressions.	.850
ldm2	<--- civic_actions.	.680
ldm1	<--- civic_actions.	.751
coa3	<--- civic_actions.	.808
coa2	<--- civic_actions.	.689
coa1	<--- civic_actions.	.671
poi3	<--- civic_expressions.	.887
truP4	<--- Trust_Propensity.	.849
truP3	<--- Trust_Propensity.	.866
truP2	<--- Trust_Propensity.	.816
truP1	<--- Trust_Propensity.	.689
truS10	<--- Social_Media_Trust	.737
truS9	<--- Social_Media_Trust	.888
truS8	<--- Social_Media_Trust	.817
truI15	<--- Trust_in_Institutions.	.814
truI14	<--- Trust_in_Institutions.	.883
truI13	<--- Trust_in_Institutions.	.906
truI12	<--- Trust_in_Institutions.	.770
incG6	<--- Group_Incentives.	.946
incG5	<--- Group_Incentives.	.754
incG4	<--- Group_Incentives.	.733
rep5	<--- Reputation.	.807
sat3	<--- Satisfaction.	.762
sat2	<--- Satisfaction.	.957
sat1	<--- Satisfaction.	.808
vss5	<--- Virtual_Social_Skills.	.751
vss4	<--- Virtual_Social_Skills.	.795
vss3	<--- Virtual_Social_Skills.	.767
dia2	<--- civic_expressions.	.691
ldm3	<--- civic_actions.	.715
truP5	<--- Trust_Propensity.	.765
rep1	<--- Reputation.	.939
rep2	<--- Reputation.	.939
rep3	<--- Reputation.	.917
rep4	<--- Reputation.	.874

Appendix 23, continued

Squared Multiple Correlations: (Group number 1 - Default model)

	Estimate
civic_actions.	.710
civic_expressions.	.590
truP5	.585
ldm3	.511
dia2	.477
vss3	.588
vss4	.632
vss5	.564
sat1	.653
sat2	.916
sat3	.581
rep1	.882
rep2	.882
rep3	.840
rep4	.764
rep5	.651
incG4	.538
incG5	.569
incG6	.895
truI12	.593
truI13	.821
truI14	.780
truI15	.663
truS8	.668
truS9	.789
truS10	.543
truP1	.475
truP2	.666
truP3	.749
truP4	.720
coa1	.450
coa2	.474
coa3	.652
ldm1	.564
ldm2	.462
poi1	.722
poi2	.703
poi3	.787

Appendix 24 Structural equation modeling statistical results

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	90	1439.271	438	.000	3.286
Saturated model	528	.000	0		
Independence model	32	13323.925	496	.000	26.863

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.137	.876	.851	.727
Saturated model	.000	1.000		
Independence model	.552	.303	.258	.285

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.892	.878	.922	.912	.922
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.061	.057	.064	.000
Independence model	.205	.202	.208	.000

Appendix 24, continued

Standardized Regression Weights: (Group number 1 - Default model)

		Estimate
civic_expressions.	<--- Trust_in_Instuition.	-.107
civic_expressions.	<--- Trust_Propensity.	-.043
civic_expressions.	<--- Trust_in_Social_Media.	.146
civic_expressions.	<--- Reputation.	.125
civic_expressions.	<--- Group_Incentives.	.174
civic_actions.	<--- civic_expressions.	.599
civic_actions.	<--- Group_Incentives.	.110
civic_actions.	<--- Reputation.	-.006
civic_actions.	<--- Trust_Propensity.	.178
civic_actions.	<--- Trust_in_Social_Media.	.018
civic_actions.	<--- Trust_in_Instuition.	-.023
Virtual_Social_Skills.	<--- civic_expressions.	.184
Virtual_Social_Skills.	<--- civic_actions.	.207
Satisfaction_in_Life	<--- civic_expressions.	-.234
Satisfaction_in_Life	<--- Virtual_Social_Skills.	.299
Satisfaction_in_Life	<--- civic_actions.	.194
poi2	<--- civic_expressions.	.839
poi1	<--- civic_expressions.	.848
coa1	<--- civic_actions.	.717
poi3	<--- civic_expressions.	.888
truP4	<--- Trust_Propensity.	.800
truP3	<--- Trust_Propensity.	.908
truP2	<--- Trust_Propensity.	.904
truP1	<--- Trust_Propensity.	.712
truS10	<--- Trust_in_Social_Media.	.735
truS9	<--- Trust_in_Social_Media.	.890
truS8	<--- Trust_in_Social_Media.	.816
truI15	<--- Trust_in_Instuition.	.877
truI14	<--- Trust_in_Instuition.	.942
truI13	<--- Trust_in_Instuition.	.854
incG6	<--- Group_Incentives.	.851
incG5	<--- Group_Incentives.	.836
incG4	<--- Group_Incentives.	.699
rep4	<--- Reputation.	.886
rep3	<--- Reputation.	.930
rep2	<--- Reputation.	.925
sat2	<--- Satisfaction_in_Life	.955
vss5	<--- Virtual_Social_Skills.	.754
vss4	<--- Virtual_Social_Skills.	.794
vss3	<--- Virtual_Social_Skills.	.764
sat3	<--- Satisfaction_in_Life	.764
sat1	<--- Satisfaction_in_Life	.809
dia2	<--- civic_expressions.	.691
ldm1	<--- civic_actions.	.762
coa2	<--- civic_actions.	.739
coa3	<--- civic_actions.	.795
ldm2	<--- civic_actions.	.691
ldm3	<--- civic_actions.	.694

Appendix 24, continued

Squared Multiple Correlations: (Group number 1 - Default model)

	Estimate
civic_expressions.	.111
civic_actions.	.462
Virtual_Social_Skills.	.125
Satisfaction_in_Life	.117
ldm3	.482
ldm2	.478
ldm1	.580
dia2	.477
vss3	.584
vss4	.631
vss5	.569
sat1	.654
sat2	.913
sat3	.583
rep2	.855
rep3	.865
rep4	.784
incG4	.488
incG5	.699
incG6	.723
truI13	.730
truI14	.887
truI15	.769
truS8	.666
truS9	.793
truS10	.540
truP1	.507
truP2	.817
truP3	.825
truP4	.640
coa1	.514
coa2	.545
coa3	.632
poi1	.720
poi2	.703
poi3	.788