DIGITALISATION, SOCIAL CAPITAL AND POLITICAL PARTICIPATION

An Investigation of Technological Affordance and Intensity of Social Media Use.

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ABSTRACT

Social Network Sites (SNSs) have attracted the attention of academics and practitioners in the field of Political Marketing, Media Studies, Sociology and Political Science for their capacity to boost social, political and civic engagement. Yet, extant research has yielded contrasting empirical evidence on the impact of different SNSs on Social Capital and Political Participation, possibly due to lack of consideration of the differences among SNSs affordances and their intensity of use.

The aim of this study is to enhance the understanding of the relationship between Social Capital and Political Participation, by considering the moderating effects of the technological affordances of different SNSs (Facebook and Twitter), their intensity of use and their combined and not combined use. The broad setting of the research is the growth of "mediatisation" and "digitalisation" of social interactions in the UK. The underlying frameworks of this thesis are the Resource Mobilisation Theory from Political Science, the Social Capital Theory and Social Network Theory from Sociology, in an optic of technological determinism through the lens of technology affordance.

To fulfil the aim of this study, a quantitative research strategy with a cross-sectional design were employed. Data were collected through an online, self-completion survey employing measures well established in previous academic research. The sample was randomly selected from a consumer panel owned by a reputed UK-based market research agency, resulting in 1212 valid responses. Partial Least Squares Structural Equation Modeling (PLS-SEM) through the SmartPLS software was used to test the moderation effects of the type of SNSs used, their intensity of use and their combined or not combined use on the relationship between Social Capital and Political Participation. A series of parametric two-way ANOVAs in SPSS and non-parametric two-way ANOVA in R were employed to test for the interaction effects of the type of SNSs used and their intensity of use on Social Capital and Political Participation, respectively.

Results show that the type of SNS employed and their intensity of use moderates the relationship between online Social Capital and Political Participation. Moreover, the research findings indicate that an interaction effect between the type of SNSs used and their intensity of use must be considered when analysing the effects of SNSs on Social Capital and Political Participation.

Given the relevance and use of Social Capital in different disciplines, this thesis contributes to theoretical knowledge in different academic fields. First, this thesis advances prior work in the domain of Engagement and Mobilisation Theories by expanding the Resource Mobilisation Theory framework through moderation mechanisms working in accordance with the principles of Technology Affordance and Technological determinism. Second, this research advances knowledge in the field of Social Capital and Political Participation by delving into the connections between different SNSs, Online (Bridging/Bonding) Social Capital, Political Participation (online/offline) and their relationships, introducing interaction effects that help to explain the contrasting empirical evidence in extant literature. Third, this thesis introduces a novel perspective to Political Marketing studies, by employing Social Capital as the main element of investigation to advance knowledge in engagement and targeting theories through different SNSs meanwhile maximising social, ethical and democratic engagement. Fourth, this thesis expands on previous SNSs studies in the domain of Media and Communication that have argued that social media affordances facilitate specific political behaviour. Integrating the Affordance thesis with the intensity of use of SNSs clarifies several competing theories related to media usage.

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When I started my PhD I was not fully prepared for the long and complex journey waiting ahead of me. Only now, I am aware of the intense desire, spasmodic dedication, and endless commitment that it requires. My PhD has been like a rollercoaster. It had its exciting ups and terrifying downs where I learned more about myself, my ambitions and anxieties, my strengths and my weaknesses. I understood who and what is important to me and how my "Social Capital" helped me to survive this complicated journey. Hence, here I would like to thank all those people and organisations who jointly, willingly or unwillingly, contributed to produce my Social Capital.

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DECLARATION

I, Alessandro Grillo, declare that the work submitted in this thesis is my own and that all references are cited accordingly.

Signed: *Alessandro Grillo* (student)

Date: 31/03/2021

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LIST OF ABBREVIATIONS

AIC Akaike's Information Criterion

AICc Akaike's Information Criterion Corrected

AICu Akaike's Information Criterion Unbiased

ART Aligned Rank Transform

BIC Bayesian Information Criterion

AMA American Marketing Association

AVE Average Variance Extracted

BCa Bias Corrected Accelerated Confidence Intervals

Bond_SC Bonding Social Capital

Brid_SC Bridging Social Capital

C-L Cross Loadings

CA Cronbach's Alpha

CB Covariance Based Approach

CET Cognitive Engagement Theory

CI Confidence Intervals

CMB Common Method Bias

Comb_Use_SNSs Combined use of SNSs

CPM Comprehensive Political Marketing

CR Composite Reliability

CTA-PLS Confirmatory Tetrad Analysis in Partial Least Square

DV Dependent Variable

df Degree of Freedom

E_S Entire Sample

f^2 f Squared (Effect Size)

F-L Fornell-Larcker Criterion

F_U Facebook Users

F+T_U Facebook and Twitter Users

FCA Full Collinearity Assessment

G-D Good Dominant Logic

HF_U Heavy Facebook Users

HF+T_U Heavy Facebook and Twitter Users

HT_U Heavy Twitter Users

HTMT Heterotrait-Monotrait Ratios

Int_SNS_Use Intensity of Use of SNSs

ISCS Internet Social Capital Scale

ITM Interaction Term Moderation

Kurt Kurtosis

L_O_L Lowest Outer Loading

LF_U Light Facebook Users

LF+T_U Light Facebook and Twitter Users

LT_U Light Twitter Users

LV Latent Variable

Max Maximum Value

Min Minimum Value

MAD Mean Absolute Deviation

MF_U Mild Facebook Users

MF+T_U Mild Facebook and Twitter Users

MGA Multi Group Analysis

MICOM Measurement Invariance of Composite Models

MMM Marketing Mix Management paradigm

MT_U Mild Twitter Users

MV Measured Variable

n Sample Size

Off_PP Offline Political Participation

On_PP Online Political Participation

OLs Outer Loadings

PEff Political Efficacy

PInt Political Interest

PKnow Political Knowledge

PLS Partial Least Squares

PLS-MGA Multi-Group Analysis in Partial Least Square

$\mathbf{Q^2}$ Stone-Geisser's coefficient

$\boldsymbol{q^2}$ Effect Size Predictive Relevance

$\mathbf{R^2}$ Coefficient of Determination

R^2_{adj} Adjusted Coefficient of Determination

RBV Resource Based View

RM Relationship Marketing

RMS_{theta} Root Mean Square Residual Covariance

RMSE Root Mean Squared Error

S-D Service Dominant Logic

SC Social Capital

SD Standard Deviation

SE Standard Error

SEM Structural Equation Modeling

Skew Skewness

SNSs Social Networking Sites

SPSS Statistical Package for Social Sciences

SRMR Standardised Root Mean Square Residual

T_U Twitter Users

V_L_O_L Value Lowest Outer Loading

VAR Visual Analogue Response

VIF Variance Inflation Factor

1. INTRODUCTION

Consistent with best practice (Bryman, 2012) this chapter starts with a definition of the research area and of the research problem (Section 1.1). Based on the research problem, the rationale of the research is discussed (Section 1.2). Then, aims and objectives of the research are set, and research questions defined (Section 1.3). A discussion of the implications of the research for theory and practice follows (Section 1.4). Next, the research process and methodology are highlighted (Section 1.5). Finally, an outline of the thesis structure is provided (Section 1.6).

1.1. THE RESEARCH PROBLEM

In recent years, citizens' disengagement with traditional forms of political participation has become a major concern for almost all western democracies and scholars alike, given the startling constant decline of voters' turnout, party membership and affection of citizens with politics (Peters, 2017; Van der Meer, 2017), except for some rare events like the U.S.A. presidential election of 2020 (Pew Research Center, 2021). Declining levels of traditional forms of Political Participation challenge the notion that democracy is in "good shape" since people's engagement in politics is understood as something positive and necessary for a proper functioning of the democratic process (Livingstone, 2013).

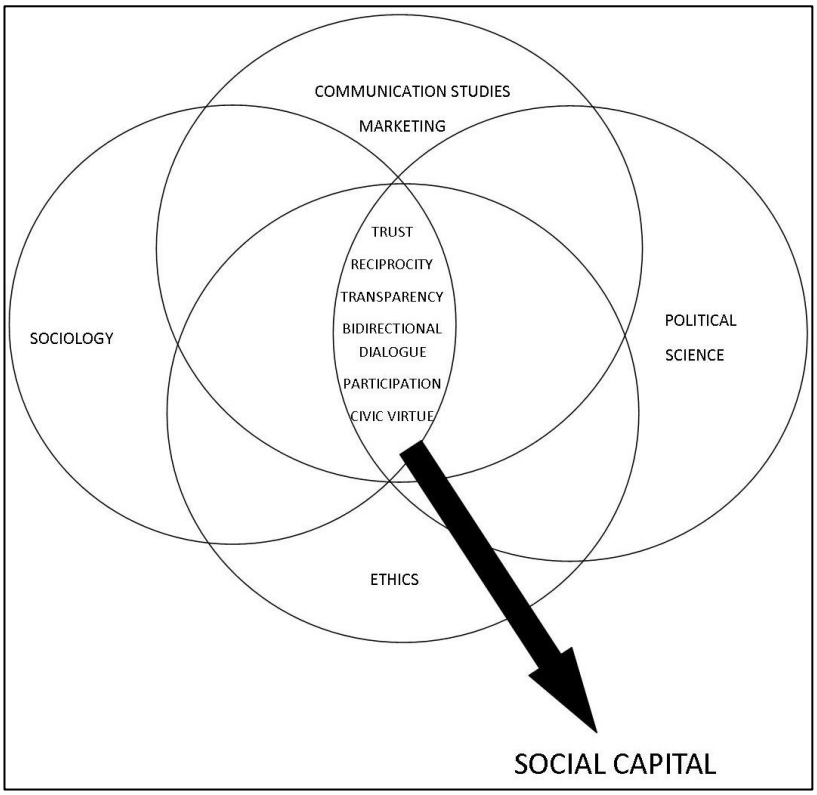
At the same time, there is evidence of political news exchanged through the Internet and particularly through Social Network Sites (SNSs) like Facebook and Twitter (Gil de Zuniga et al., 2017; Park, 2019; Tang and Lee, 2013; Xenos et al., 2014), of online petitions with millions of signatures, of mass protests and even revolutionary movements coordinated through SNSs like the *Arab Spring*, the anti-austerity protest in Greece, the *Indignados* in Spain and the *Gilets Jaunes* in France (Boulianne, 2015; Carson and Elstub, 2019; Theocharis and Lowe, 2015; Valenzuela et al., 2018). Arguably, this evidence suggests that new forms of political engagement are arising in the online world, taking over the more traditional types of participation, allowing the Internet to be recognised as an instrument of political mobilisation (Ekman and Amna, 2012; Fox, 2014; Van Deth, 2014).

Therefore, the claim that democracy is in danger because of declining levels of traditional forms of Political Participation may be exaggerated (Theocaris and Van Deth, 2018). Rather, different and new forms of participation (online) must be taken into account as indicators of a healthy democracy in studies regarding political engagement (Ekman and Amna, 2012) which may be facilitated by the use of SNSs. Indeed, since the success of the U.S.A. Facebook-based presidential campaign of Barack Obama in 2008, heavily SNSs-based political campaigns started to appear all around the world, as a potential remedy to the declining engagement of the electorate with politics (Earl and Kimport, 2011). Arguably, this is due to the ability of SNSs to lower transaction costs, remove physical obstacles to participation, and generate new forms of engagement that seem to have a positive incremental effect also on traditional political activities offline (Bimber et al., 2005; Van Laer and Van Aelst, 2010; Theocharis and Lowe, 2014).

Considering the relevance of SNSs use for increasing levels of citizens Political Participation, several academic disciplines have engaged with the study of online platforms. For instance, communication studies have advocated the intensive and extensive use of the SNSs for establishing one-to-one bidirectional dialogue, transparency, trust, intimacy and higher levels of responsiveness from voters (Press and Williams, 2010). Political Scientists have argued in favour of more direct kinds of democracy (*Deliberative* and *Participatory*) through online forums where citizens can make their opinion really "count", restoring that feeling of individual influence over politics which appeared to be lost (Livingston, 2013). Political Philosophers have widely criticised *deontological* and *consequentialist* ethical approaches to politics, regarding them as part of the fundamental causes of the current "*democratic malaise*". Rather, they advocate the revival of *Virtue Ethics* and *Communitarianism* (Hartley and Watson, 2014), which are embedded in a logic of common good as arising from society, through means of debating and deliberation in online “agora”. Even Political Marketing academics, following the Service-Dominant (S-D) logic of mainstream Marketing (Vargo and Lusch, 2004, 2008), have placed the concepts of interactions, co-creation of values, exchanges, bidirectional dialogue, long-term relationships, trust and intimacy at the centre of the relationships between political institutions and society at large (Egan and Lynch, 2012; O’Cass, 2009; Peterson and Godby, 2020).

Notably, concepts like trust, intimacy, reciprocity, long-term relationships and bidirectional dialogue routinely and consistently recur in the extant literature of different disciplines when dealing with SNSs (Figure 1.1). Sociologists in particular have demonstrated how reciprocity, trust, civic virtue among citizens and a strong embeddedness in social networks' ties among citizens are indispensable elements of a healthy society characterised by high levels of Political Participation (Putnam, 2000; Norris, 2002; Lin et al., 2008). These concepts are relevant and central to the construct of Social Capital, which in this study is regarded as the instrument to investigate the relation among SNSs, the "*democratic malaise*" and Political Participation.

Figure 1.1. Common key concepts recurring in different fields and their link to Social Capital.



Source: Created by author.

Indeed, many competing perspectives exist about the mechanisms through which SNSs use might affect Political Participation (for a comprehensive discussion see Boulianne, 2015). One of the most accredited perspective (employed in this research) focuses on the role of social networks ties as generator of resources like Social Capital

that can be purposely mobilized to perform political actions (Gil de Zuniga et al., 2012; Molyneux et al., 2015). Social Capital exists within social networks in the forms of trust, obligations, expectations of reciprocity, sharing informational behaviour and knowledge provision (Coleman, 1988; Putnam, 2000). Yet, different types of social ties can produce different types of Social Capital (Putnam, 2000). Strong ties (relationship with parents, relatives and close friends) generate Bonding Social Capital defined by high level of trust, reciprocity and emotional support created among like-minded individuals and, as such, may provide homogenous types of resources and information. In contrast, weak ties (relationship with acquaintances) generate Bridging Social Capital, that is characterised by weak emotional and affective support, while it provides heterogeneity of information and resources as it is created among people with different cultural background and beliefs (Putnam, 2000).

Although, to some extent, Online and Offline Social Capital seems to have similar effects on increasing citizens' levels of political engagement, extant studies have originated mixed and opposing findings over the effect of different forms of Social Capital (Bonding/Bridging) on Offline and Online Political Participation.

Indeed, while some studies have shown a positive effect of Online Social Capital on Offline Political Participation (Gibson and McAllister, 2013; Skoric et al., 2009), others found no significant association between them (Gil de Zuniga et al., 2012). With respect to Online Political Participation, several studies have identified a positive relationship with Online Social Capital (e.g., Skoric et al., 2009; Valenzuela et al., 2012). However, the literature provides mixed and inconsistent findings with respect to what type of Social Capital (Bonding/Bridging) may facilitate online political behaviour.

Likewise, studies on the relationship between the Internet and Bonding and Bridging Social Capital have produced contradictory results. Indeed, some authors found no significant effects (e.g., Papacharissi and Mendelson, 2011; Petersen and Johnston, 2015; Uslaner 2004). Meanwhile, many others found either significant negative effects (Helliwell and Putnam, 2004; Putnam, 2000; Nie et al., 2002; Norris, 2000; Zhang et al., 2010) or positive effects (Burke, Marlow, and Lento, 2010; Ellison et al., 2007; Gil de Zuniga et al., 2012; Ho et al., 2003; Kaigo, 2012; Resnick,2002; Steinfield et al., 2008; Valenzuela et al., 2009; Yoder and Stutzman, 2011).

The same pattern of inconsistent and contradictory findings holds true for Offline and Online Political Participation, and its relationship with SNSs use. While Gil de Zuniga et al. (2012) and Valenzuela et al. (2009) found no relationship between SNSs use and Offline Political Participation, Vitak et al. (2011) found a weak negative relationship. In contrast, Bode (2012), Park et al. (2009), Skoric and Poor (2013), DiGrazia et al. (2013) and Towner (2013) found that SNSs use is a statistically significant indicator of offline political behaviour. Furthermore, Bode (2012) and Vitak (2012) found SNSs use to be a significant predictor of political activities online. However, Gil de Zuniga et al. (2012) and Skoric and Poor (2013) found no significant relationship.

The contrasting empirical evidence regarding the impact of SNSs on Social Capital, Political Participation and their respective relationship has been ascribed by scholars to several reasons. Two of the most prominent are the specific technological affordance of each SNS, and the time spent on them.

With respect to the technological affordance, different SNSs have different functions, settings and algorithms which affect users' perceptions of the needs that each SNS can satisfy (Brandtzaeg, 2012; Petrocchi et al, 2015; Phua et al., 2017; Valenzuela et al., 2017). Furthermore, research has shown that different types of needs are better satisfied by different types of Social Capital (Putnam, 2000). While Bonding Social Capital satisfies the need for emotional and psychological support, reinforced by the high levels of trust, reciprocity and solidarity provided by closed homogenous groups, Bridging Social Capital bridges across different heterogeneous social context and as such it is better at satisfying the need for novel and diverse information and at providing large social support (Somma, 2009). Hence, Bonding Social Capital seems to facilitate collective actions which need greater moral support like protesting, marching etc. (Centola, 2011; Putnam, 2000). Rather, Bridging Social Capital facilitates actions that do not require high moral support, like voting or contacting politicians (Gladwell, 2010; Morozov, 2011; Somma, 2009). Therefore, the unique affordance of each SNS can reinforce or weaken the relationship between Online Bonding and Bridging Social Capital and Online or Offline Political Participation to different extents and through different processes (e.g., strengthening social ties, decreasing communication costs, facilitating acquisition of political information, etc.).

Moreover, the time spent on the SNSs may affect different types of Social Capital (Bonding/Bridging) and Online/Offline Political Participation. Indeed, each SNS has specific affordances which, in time, would facilitate the dominance of a particular type of Social Capital. Yet, as discussed above, each type of Social Capital is better at satisfying different needs and would help individuals to perform some social and political actions over others (Ellison and Vitak, 2015). Hence, a logical link between SNSs' affordances and the time spent on them and their effect on Social Capital and Political Participation may exists.

Furthermore, it is understood that nowadays a large majority of people use two or more SNSs simultaneously (Duggan, 2015; Hampton et al., 2011) to satisfy different needs (Brandtzæg, 2012; Huberman et al., 2009; Petrocchi et al., 2015; Phua et al., 2017). Yet, since different SNSs have different affordances, it is conceivable that the simultaneous use of different SNSs can affect the relationship between Online Social Capital and Political Participation too.

However, a review of the literature (see Chapter 4, Section 4.5) reveals that extant studies investigate the relationship between Online Bridging and Bonding Social Capital and Online and Offline Political Participation on one SNS and then generalise its effects to other platforms without taking into consideration how their respective technological affordances, their simultaneous use or their intensity of use could affect such relationship. This limitation in extant research has increased the level of uncertainty over the effects of SNSs on Social Capital and Political Participation, resulting in the development of several competing perspectives based on the contrasting empirical evidence reported above (see Chapter 3, Section 3.4.1 and Chapter 4, Section 4.4.2). Such lack of clarity is surprising, given that politicians and their political parties rely heavily on SNSs to engage with the electorate and implement their political strategies. Given the above background, shedding light on which type of SNSs could help politicians to better address and engage with the electorate according to their specific affordance, their combined or not combined use and their intensity of use is fundamental. Furthermore, investigating the heterogeneity of the SNSs with respect to their specific affordances and intensity of use may allow for more nuanced connections between Online (Bridging/Bonding) Social Capital and Political Participation (Online/Offline). This would ultimately help to explain the contrasting empirical evidence in extant literature, by appraising competing media

theories related to media usage (e.g., Time Displacement Theory and Channel Complementarity Theory) (See Chapter 3, Section 3.4.2 and Chapter 4, Section 4.4).

The above discussion provides the contextual background to this thesis and is the base for defining the rationale for conducting the current research.

1.2. THE RATIONALE FOR RESEARCH

As discussed in Section 1.1. with the development of the Internet and SNSs, social interaction has started to take place also online (Quan-Haase and Young, 2010). Over time, people have increasingly embraced SNSs to fulfil their informational (Gil de Zuniga et al., 2017; Xenos et al., 2014), emotional, and social needs (Gan and Wang, 2015; Hołyst, 2017; Zhan et al., 2016). Hence, studying SNSs and their effects on different social settings and human behaviours has become a pressing issue for scholars and for practitioners alike in a variety of disciplines and contexts. In particular, the effects of SNSs on Social Capital and Political Participation have been the focus of interest of sociologists and political scientists, who have investigated whether SNSs could increase levels of citizens' political engagement (Boulianne, 2015; Boulianne and Theocharis, 2020; Chae et al., 2019; Skoric et al., 2016). Meanwhile, communication experts and political marketers alike have focused on the targeting efficacy and efficiency of SNSs with respect to inactive and disengaged people and on how different digital platforms could be better used for targeting specific segments of the population like millennials that are hard to reach offline (Hughes, 2018).

Nonetheless, as highlighted in Section 1.1. extant research has provided contrasting empirical evidence with respect to the effects of SNSs on Social Capital, Political Participation and their relationship. Skoric et al. (2016) remark that early research suggested the necessity to advance knowledge on how different types of Social Capital (Bonding/Bridging) created online could affect Political Participation online and offline (e.g., Hampton, 2011; Skoric et al., 2009; Zhong, 2014). However, by focusing on the heterogeneity of Social Capital and Political Participation the effect of the heterogeneity of the SNSs on their relationship was neglected. This is problematic because, as discussed in Section 1.1, each SNS has unique technological affordances (Ellison and Vitak, 2015; Enli and Skogerbø, 2013) which can facilitate or hinder the relationship between Social Capital and Political Participation through several

mechanisms (see Section 3.4.2 and Section 4.4.3). Furthermore, the time spent on SNSs could affect the relationship between SNSs, Online Social Capital and Political Participation. For instance, given that Facebook's affordances facilitate the maintenance and reinforcement of strong ties (Petrocchi et al., 2015; Nadkarni and Hofmann, 2012), the time spent on it may affect the relationship between Online Bonding Social Capital and participatory behaviour that need high personal psychological and moral support like protesting and marching (Valenzuela et al., 2017). Rather, Twitter which is centred around information and opinions sharing and is better at fulfilling informational needs through weak ties can create large social support and develop a sense of reciprocity (Huberman et al., 2009; Petrocchi et al., 2015; Valenzuela et al., 2017). In time, such sense of reciprocity may affect the relationship between Online Bridging Social Capital and participatory behaviour that needs social support, like creating petitions or joining civic movements.

The above discussion suggests that the technology affordance, the combined or not combined use and the intensity of use of SNSs could be differentiating elements of analysis and could explain, to some extent, the contrasting empirical findings identified through the literature review. In fact, contrasting and inconsistent empirical findings regarding the effect of an independent variable (Online Social Capital) on the same dependent variable (Political Participation) raise the question of whether interaction or moderating effects can explain such differences (Field, 2013; Memon et al., 2019).

Given the relevance of Social Capital to several disciplines, research that fills the above gaps can lead to advancements in Sociology, Politics, Communication studies and Political Marketing. For the latter, this research will help to inform the decision of political parties and their marketers in relation to the implementation of effective engagement and targeting strategy with the electorate, through the appropriate SNSs for the type of behaviour sought after by political institutions. Indeed, many scholars advocate that research should distinguish between SNSs based on their unique affordances (Boulianne 2019; Halpern et al., 2017; Valenzuela et al., 2017; Woo-Yoo and Gil de Zuinga, 2014), their combined or not combined use (Petrocchi et al., 2015) and their intensity of use (Boulianne, 2015; Ellison et al., 2007; Skoric and Kwan, 2011; Skoric and Poor, 2013; Skoric et al., 2016; Steinfield et al., 2008) and should examine

possible paths of influence of SNSs on Social Capital, Political behaviour and their relationship. Yet such research is lacking.

The above rationale for advancing knowledge informs the aims and objectives of this research as discussed in the next Section.

1.3. AIM, CONCEPTS, THEORETICAL FRAMEWORK AND RESEARCH QUESTIONS

This research aims to investigate the impact of the affordances of different types of Social Network Sites, namely Facebook and Twitter, their intensity of use and their combined or not combined use on sharing, cooperative and mobilising behaviours of people in the context of Social Capital and Political Participation. The broad setting is the growth of "*mediatisation*" and "*digitalisation*" of social interactions through SNSs, under the assumption of "*technological determinism*" and "*technology affordances*". The former is centered on the belief that technology "per se" can affect individuals' actions, interactions and even psyche regardless of any socio-demographic characteristics of respondents and any reasons of usage of the technology (Hauer, 2017). The latter is defined as "*the perceived and actual properties of the thing, primarily those fundamental properties that determine just how the thing could possibly be used*" (Norman, 1988: p. 9).

The main constructs employed in this research to investigate the above are: **(1) Online Social Capital**, differentiated in its Bonding and Bridging dimensions (Putnam, 2000; Williams 2006), mirroring cooperative and sharing behaviour in social interactions; and **(2) Political Participation** differentiated in its online and offline form and representing mobilised behaviour (Ekman and Amna, 2012; Fox, 2014; Van Deth, 2014).

The underlying frameworks of this research which brings together the above concepts are: (**1**) the ***Resource Mobilisation Theory*** (Zald and McCarthy, 2002) according to which resources such as financial capital, education, skills and even Social Capital (Bourdieu, 1986; Bourdieu and Wacquant, 1992) may affect levels of Political Participation; (**2**) the ***Social Capital Theory*** (Putnam, 2000) which corroborates the claim that association and interaction in social networks facilitate the creation of Social Capital;

(**3**) the ***Social Network Theory*** (Granovetter, 1973; Wellman 1983) according to which participation in social networks may promote Political Participation.

To account for inconsistent findings in the extant research about the effect of SNSs on Online Social Capital, Political Participation and their relationship, the "Technology Affordance" principle is recalled (Norman, 1988) and the type of SNSs employed and their intensity of use are tested for moderation within the Resource Mobilisation Theory framework. Also, given that different SNSs have different affordances and that many people use more than one SNS (Petrocchi et al., 2015), the combined use of Facebook and Twitter is tested as moderator of the relationship between Online Social Capital and Political Participation. This will help to answer the first three research questions:

Q1. Does the type of SNSs used moderate the relationships between Online Social Capital and Political Participation? To what extent?

Q2. Does the intensity of use of SNSs moderate the relationships between Online Social Capital and Political Participation? To what extent?

Q3. Does the combined use of SNSs moderate the relationships between Online Social Capital and Political Participation? To what extent?

The conceptual framework employed to investigate the above is presented in Figure 1.2.

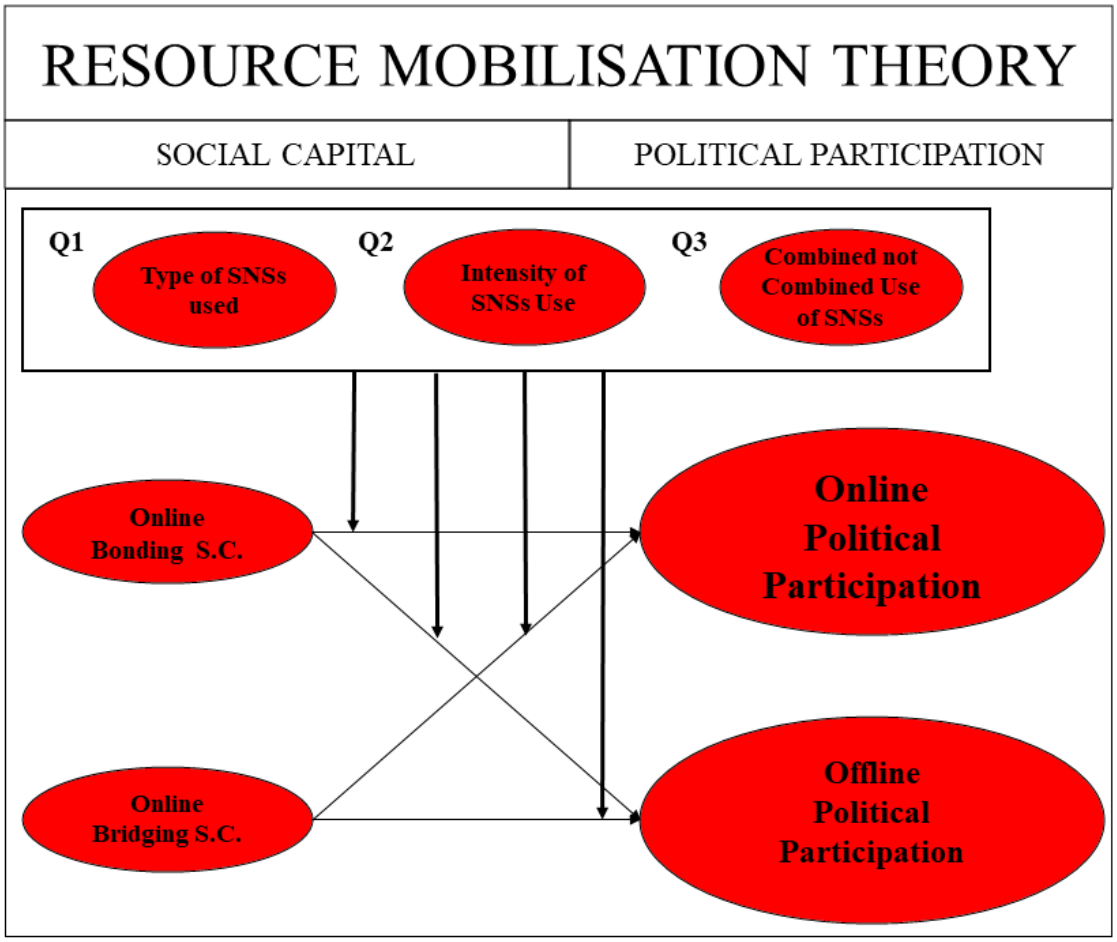
Finally, the type of SNS used is tested for interaction with their level of usage, to investigate differences in the amount of Online Bonding/Bridging Social Capital and Online/Offline Political Participation reported by users of different SNSs applying the Social Capital Theory and the Social Network Theory, respectively. This will help to answer the following research questions:

Q4. To what extent do levels of Online Social Capital differ across different types of SNSs employed at different levels of their intensity of use?

Q5. To what extent do levels of Political Participation differ across different types of SNSs employed at different levels of their intensity of use?

However, given that Online Social Capital is conceptualised through the two dimensions of Bonding and Bridging (Putnam, 2000; Williams, 2006) and that Political Participation is examined in its Online and Offline forms (Ekman and Amna, 2012; Fox, 2014; Van Deth, 2014) each main research question has several subsidiary questions as reported in Chapter 5, Table 5.2.

Figure 1.2. Conceptual Framework of the Research.



1.4. PROPOSED CONTRIBUTIONS TO THEORY AND PRACTICAL IMPLICATIONS

Given the relevance and use of Social Capital in different disciplines (see Section 1.1) this thesis aims to contribute to theoretical knowledge in different academic fields.

First, this thesis advances prior work in the domain of Engagement and Mobilisation Theories by expanding the Resource Mobilisation Theory framework

(McCarthy and Zald, 1977) through moderation mechanisms working in accordance with the principles of Technology Affordance and Technological determinism (see Section 1.3).

Second, this research advances knowledge in the field of Social Capital by delving into more nuanced connections between different SNSs, Online (Bridging/Bonding) Social Capital, Political Participation (Online/Offline) and their relationships, introducing interaction effects that may explain the contrasting empirical evidence in the extant literature presented in Section 1.1. In particular, this thesis provides a framework for understanding how different types of social connectedness relate to different political actions, in accordance with the heterogeneity of the SNSs specific affordances, their intensity of use and combined or not combined use.

Third, this thesis introduces a novel perspective to Political Marketing studies which so far have been heavily criticised for their lack of engagement with theories of democracy, ethics and sociology (Henneberg et al., 2009; O'Shaughnessy, 2001; Ormrod et al., 2013). This shift is advocated by many academics (Henneberg et al., 2004; Ormrod et al., 2013; Savigny and Wring, 2009) and is in line with the Comprehensive Political Marketing (CPM) approach (Lees-Marshment, 2001, 2003) which encourages the creation and integration of Political Marketing Theories with concepts originating from other disciplines. Employing as the main element of investigation the concept of Social Capital, originating from the sociological field, provides a new theoretical framework for researchers in Political Marketing that could advance knowledge in engagement and targeting theories meanwhile maximising social, ethical and democratic engagement (see Chapter 3 and Chapter 4).

Fourth, this thesis expands on previous SNSs studies in the domain of Media and Communication that have argued that social media affordances facilitate specific political behaviour. Integrating the Affordance thesis with the intensity of use of SNSs would allow to appraise competing media theories related to media usage (e.g., Time Displacement Theory and Channel Complementarity Theory) in different SNSs and for different types of Political Participation (online/offline).

With respect to the practical implications, this research will help to inform the decision of political marketers in relation to the implementation of effective engagement

and targeting strategy of the electorate through the right SNSs for the right type of behaviour. Indeed, understanding whether a specific SNS can enable or inhibit offline or online political behaviour can facilitate marketers' strategic choices with respect to the objectives of their political campaign. Also, understanding how use of different social media affects different types of Social Capital would further help Political Marketers for their targeting strategies, given that different types of Social Capital (Bonding/Bridging) have been found to affect Online and Offline Political Participation differently (Boulianne 2015; Skoric and Zhu, 2016).

However, although the focus of this thesis is on Political Marketing, its significance expands also to other sectors. This is because the positive implications of Social Capital for practice are well documented in the economics sphere (Aldridge et al., 2002; Halpern, 2001; Putnam et al., 1993), as well as in marketing (Antoniadis and Charmantzi, 2016; Jones and Taylor, 2012; Ritchie and Sridharan, 2007), for educational attainment (Aldridge et al., 2002; Israel et al., 2001), in public health and societal wellbeing (Coulthard et al., 2001) and even for problem solving (Boyte, 1995; Sirianni and Friedland, 1997). For instance, the UK government has a specific section of its website dedicated to Social Capital (https://www.gov.uk/government/statistics/social-capital-in-the-uk) which is regarded as a measure of national well-being and is used to inform decision-making in terms of resource allocation, public health, societal wellbeing, and cohesion (ONS, 2017). Understanding which SNSs could facilitate the development of Social Capital may introduce changes in government use of SNSs and push policies for the development and social affordability of one SNS over another (or maybe both) to improve social well-being and cohesion.

1.5. RESEARCH PROCESS AND METHODOLOGY

Following Bryman (2012) the research process of this study was divided into the following eleven phases: **(1)** carrying out the literature review; **(2)** establishing a theoretical framework; **(3)** defining the research strategy; **(4)** highlighting the research design; **(5)** contextualising the research method; **(6)** operationalising the constructs in the theoretical framework; **(7)** determining the appropriate statistical analysis; **(8)** determining sample characteristics and size; **(9)** data collection; **(10)** data analysis and **(11)** summarising the results and drawing conclusions.

Briefly, to fulfil the aim of this study and answer the research questions presented in Section 1.3, this research used a quantitative research strategy employing a cross-sectional design which is commonly adopted in the field of SNSs, Social Capital and Political Participation studies (Boulianne, 2015; Skoric et al., 2016). Data was collected through an online self-completion survey hosted on Qualtrics. The questionnaire was piloted and designed to minimise common method bias, social desirability and acquiescence biases following the recommendations of MacKenzie and Podskoff (2012). The measures employed to operationalise the concepts included in the proposed theoretical framework originate from previous peer-reviewed academic articles. The use of well-established scales increases the reliability of the research and facilitates comparability and replicability of the study, while also establishing face and measurement validity (Bryman, 2012). The sample was randomly selected from an online consumer panel owned by the data collection agency Pureprofile, resulting in 1212 responses. The use of a web panel was considered appropriate because it helped to reach online people that were the target population of this research (Rea and Parker, 2014). PLS-SEM Moderation analysis with the SmartPLS software (Hair et al., 2017) was employed to answer research questions Q1, Q2, Q3 and relating sub-questions. Parametric two-way ANOVAs in SPSS (Field, 2013) and robust two-way ANOVA in R (Luepsen, 2017) were employed to answer, respectively, research questions Q4 and Q5 and relating sub-questions (Table 5.2 in Chapter 5).

1.6. RESEARCH STRUCTURE

As mentioned above, this study follows a 11 stages approach to research (Bryman, 2012) which are distributed across 8 Chapters (Figure 1.3).

Chapter 1 introduces the research problem, relevance, aims, theoretical framework, methodology and structure used to meet the research objectives.

Chapter 2 provides a systematic literature review of Political Marketing following its historical evolution. The review highlights reasons behind the need for a shift in both practice and theory, towards a more "*comprehensive*" and "*holistic*" approach to Political Marketing. This approach is oriented at a societal welfare perspective which fits the aims of this research and advocates the inclusion of concepts like Social Capital in Political Marketing Studies.

Chapter 3 reviews the current debate in academia around the issue of '*participation*' according to the three main fields at the centre of this work, namely *Ethics*, *Democratic Theories* and *Media Studies*, and their link with Social Capital. A theoretical and critical excursus of those fields helps to define Political Participation and to identify gaps related to media studies and the use of SNSs in politics.

Chapter 4 provides an account of the extant Social Capital literature and its relationship with the Internet, SNSs and Political Participation studies. Criticisms and different theoretical points of view over the content of the construct of Social Capital are provided. A clear stand in the light of the aim of this study is chosen and supported by theoretical arguments, with the final aim to provide a definition which will inform the operationalisation of Social Capital in this research. Gaps in the extant literature of Online Social Capital and its relationship with SNSs and Political Participation studies are provided.

Chapter 5 harnesses the specific literature relevant to the development of the conceptual model and presents the theoretical framework and relative constructs, together with the research questions.

Chapter 6 outlines and justifies the research approach, design and methods of sampling, data collection and data analysis used. This chapter presents the operationalisation of the constructs employed in the proposed model and provides details of the development and structure of the questionnaire, pinpointing the steps taken to enhance the reliability and the validity of the research.

Chapter 7 details the process of preliminary data analysis including data screening, descriptive statistics, and tests for common method bias. Then, it provides results and discussion of the analysis carried out to answer the proposed research questions.

Chapter 8 presents a summary of the findings, followed by a discussion of the research questions. It highlights the theoretical and practical implications of this study and its limitations, with recommendations for future research.

Figure 1.3. Outline of the Thesis.

Chapter 1	**Introduction**
•Introducing the research rationale, aims, questions, methodology and structure.	
Chapter 2	**Literature Review on Political Marketing**
•**Stage 1** - Carrying out the literature review --> Political Marketing and the Comprehensive Approach towards a Societal Welfare Definition .	
Chapter 3	**Literature Review on Political Participation**
•**Stage 1** - Carrying out the literature review --> Political Participation in Ethics, Theories of democracy and Media studies. Relationship with Social Capital.	
Chapter 4	**Literature Review on Social Capital**
•**Stage 1** - Carrying out the literature review --> Social Capital Online in Media and Communication studies. Relationship with Political Participation.	
Chapter 5	**Research Aims, Questions and Model**
•**Stage 2** - Establishing research aims, questions and theoretical framework.	
Chapter 6	**Research Startegy, Design, Methods and Techniques of Analysis**
•**Stage 3** - Defining the research strategy --> Quantitative Approach. •**Stage 4** - Highlighting the research design --> Cross-Sectional. •**Stage 5** - Contextualise the research method --> Online Survey. •**Stage 6** - Operationalising the constructs --> Measures employed in previous studies. •**Stage 7** - Determining the appropriate statistical analysis --> PLS-SEM - Two-Way ANOVA. •**Stage 8** - Determining sample characteristics and size --> Web Panel Sample (n = 1212). •**Stage 9** - Data collection --> Questionnaire hosted on Qualtrics.	
Chapter 7	**Data Analysis, Results and Discussion**
•**Stage 10** - Data analysis and Discussion --> Questions Q1 - Q2 - Q3 --> PLS-SEM Moderation Question Q4 --> Two-Way parametric Anova Question Q5 --> Two-Way non parametric Anova	
Chapter 8	**Summary and Conclusions**
•**Stage 11** - Summarising the results and drawing conclusions.	

Source: created by author following Bryman (2012) research stages.

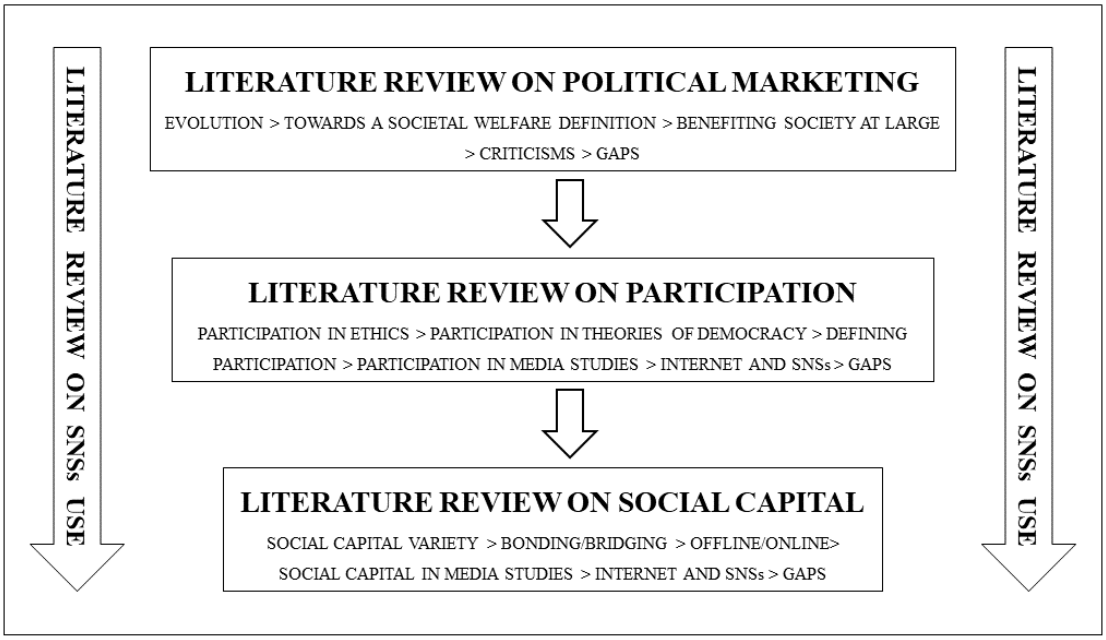
1.7. LITERATURE REVIEW AIMS AND METHODOLOGY

This thesis follows a deductive approach to research. Therefore, the scope of the literature review is to identify gaps in the extant literature and to pinpoint a theoretical framework under which define concepts to answer the proposed research questions (Bryman, 2012). This study relies on the three interrelated concepts of Political Participation, online Social Capital and online Social Networks, to build a theoretical framework in line with the research topic. The need to link those different concepts coming from different disciplines like Political Science, Sociology and Media Studies is dictated by the desire to overcome the criticisms to Political Marketing of not adequately engaging with ethical questions, theories of democracies and sociological perspectives (Henneberg, 2004; Henneberg et al., 2009; O'Shaughnessy, 2002; Ormrod et al., 2013).

Given the multidisciplinary and broad nature of this research, an interdisciplinary review of the literature was conducted. Indeed, the research is underpinned by four streams of literature, namely Political Marketing, Political Participation, Social Capital and SNSs use as illustrated in Figure 1.4. Notably, the SNSs use stream underlies the other three streams and is incorporated in their respective Chapters. Hence, the literature review is organised in three main Chapters (see Section 1.6.) and follows a *funnel approach* (Webster and Watson, 2002). For each Chapter, and corresponding literature stream, gaps are identified.

The literature has been conducted using a multi-keyword search initially employing Google Scholar, JSTOR and ProQuest databases and later focusing on the relevant academic journals identified through the databases. Specifically, ProQuest was employed because it is considered the leading literature review database (Levy and Ellis, 2006), while Jstor is regarded as one of the most trusted source for academic publications (Jstor, 2016). Key words and academic journals used for each stream of literature are reported in Appendix A.

Figure 1.4. Flow chart overview of the literature underpinning the research.



Source: created by author.

2. LITERATURE REVIEW ON POLITICAL MARKETING

The literature review on Political Marketing follows a historical evolution of its theoretical conceptualisation linking it to theories of Political Science, Sociology and Media Studies. The aim is to provide a theoretical framework which engages with those disciplines and through which Political Participation can be approached. This is because:

1. many scholars have fostered a great degree of historical reflection (Dholakia 2012a, 2012b; Fullerton 2011; Hunt, 2010), arguing that history not only may add context and richness to our understanding of a field, but most importantly, it helps scholars avoid unnecessary repetition in research (Tadajewski and Saren, 2008) and frame the contribution to Political Marketing knowledge that we make.
2. So far, Political Marketing research has been informed and led mainly by mainstream marketing concepts originating from economic theories and has somewhat neglected the importance of values, ethics and ideology in the political sphere and in society at large (Henneberg, 2008; Lees-Marshment, 2019a, b; Ormrod et al., 2013; Savigny and Wring, 2009; Taylor, 2006; Yoon et al., 2005).
3. The relevance of Political Science and Social Studies to Political Marketing is confirmed by O' Cass (2009) who claims that "*Two activities – politics and marketing – often dominate the social psyche of many societies, having a major influence over individuals and the broader citizenry*" (p. 190) and by Butler and Harris (2009) for whom "*the significance of politics and marketing [...] for societies demands the integrated engagement of research in both*" (Butler and Harris, 2009: p. 149).
4. As far as Social and Media Studies are concerned, scholars acknowledge that those discipline have exercised a fundamental influence on Politics and especially on Political Communication studies leading these two fields to investigate attitudes, beliefs and opinions of voters (Bennett and Iyengar, 2008; McNair, 2017; Ryfe, 2001). Indeed, most of the earliest and important researchers in communication (among the others Lasswell, Lazarsfeld, Lewin and Hovland) were trained in the social psychological tradition and largely influenced Political Communication studies to the point that "*the two most common instrument of data*

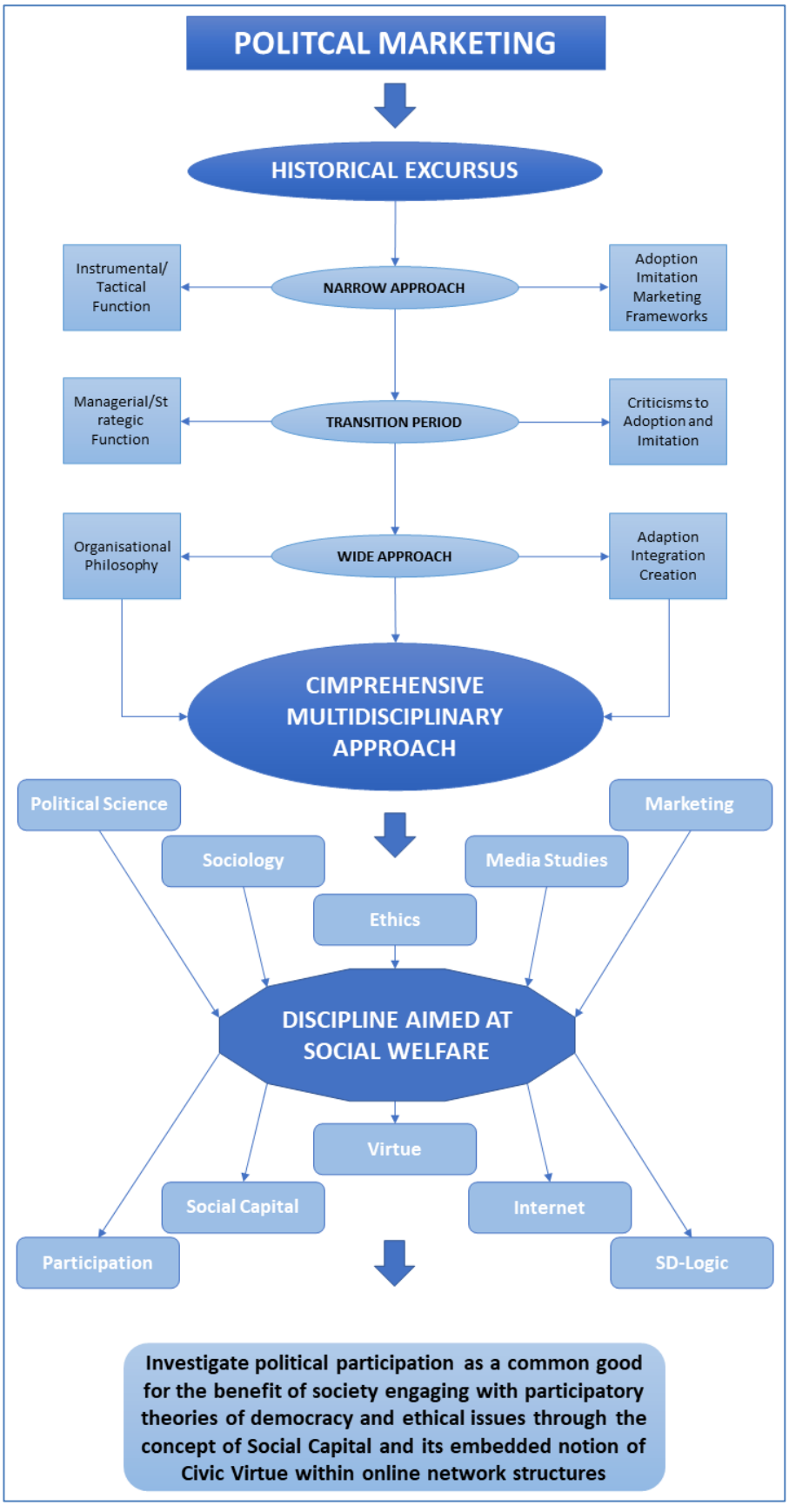
collection in political communication, surveys and experimental studies, were developed by social psychologists" (Ryfe, 2001: p. 409).

Importantly, the inclusion of other disciplines is dictated by a general concern over the "*democratic malaise*" resulting from a decline in civic engagement and participation of citizens in the political process. Arguably, Political Marketing as it is understood nowadays and the marketisation of politics with no regards for social or ethical implications are some of the several causes which have fostered such "*democratic malaise*" (Savigny and Wring, 2009). Furthermore, the inclusion of the aforementioned disciplines in studies of Political Marketing is in line with the concept of Comprehensive Political Marketing (CPM) suggested by Lees-Marshment (2001; 2003), who suggests that the study of Political Marketing should encompass the political and management science literatures, allowing for greater cross-disciplinary research. Arguably, an interdisciplinary research approach to Political Marketing is required (Perannagari and Chakrabarti, 2020) and *"certainly makes for a more complex mission, but a comprehensive engagement offers real theoretical reward*" (Butler and Harris, 2009: p. 154). Indeed, interdisciplinary may represent almost a forced choice for Political Marketing, since "*the significance of politics and elections for societies demands the integrated engagement of research in politics and marketing*" (Butler and Harris, 2009: p. 149) and other relevant disciplines like Sociology and Communication Studies (Ormrod et al., 2013). Yet, "*existing literature has neglected the interdisciplinary nature of the discipline*" (Perannagari and Chakrabarti, 2020: p. 10).

For all mentioned so far, the following Sections, provide a portrait of the development of the understanding of the nature of Political Marketing, with a specific focus on the emergence of Political Marketing as an academic discipline and political practice strategy, thus spanning from the original broadening of marketing debate introduced by Kotler and Levy at the end of 60s, to contemporary definitions which highlight differences between mainstream marketing and Political Marketing. Through this process the need for a shift in the conceptualisation and research practices of Political Marketing is justified arguing that "*Political Marketing in its current form is informed by a set of economic assumptions that are antithetical to democracy and serve to disconnect the public from the process of politics*" (Savigny, 2008: p. 29). This historical approach

will engender a definition of Political Marketing which is better suited to the focus of this study based on relationships and interactions among people, with an emphasis on Political Marketing at a service to society and to the "common good". The final aim is to identify theoretical and practical gaps in Political Marketing research. Figure 2.1 provides a conceptual map of this Chapter.

Figure 2.1. Conceptual Map Chapter 2.



2.1. EVOLUTION OF POLITICAL MARKETING

The concept of Political Marketing is strictly correlated with the "marketing of persons, organizations and ideas" which stemmed from the broadened concept of Marketing introduced by Kotler and Levy (1969) claiming that "*marketing is a pervasive societal activity that goes considerably beyond the selling of toothpaste, soap and steel*" (p. 10). Up to that moment, and from a theoretical standpoint, Politics was a term associated with ideas and ideologies rather than Marketing. However, Political Marketing as a practice, or as the art of persuading and spinning (Jones, 1997), or as the enactment of presentation and "*doing what will play well with the electorate*" (Palmer, 2002: p. 354) or as the packaging of politics (Franklin, 1994) could go back to Machiavelli (Harris, 2001) or even Aristotle (Butler and Harris, 2009; Savigny, 2009). Therefore, in practice, there has always been a Marketing of political people (Kotler, 2005) and marketing techniques in politics were already observable before the broadened marketing debate, but they remained practices without an explicit framework in the general political strategy of candidates and parties.

However, even nowadays it appears difficult to provide a clear framework for Political Marketing since there is no agreement on its definition (Lock and Harris, 1996; O'Cass, 2001; Ormrod et al., 2013; Scammell, 1999). Therefore, the following Sections present a historical account of the evolution of Political Marketing with the aim of clarifying any confusion and to provide a better understanding of what it was, what it is and what it could be.

Particularly, the following sections show how Political Marketing has experienced several transformations in its conceptualisation, switching from a *narrow* view, where it was regarded as a mere process in its *instrumental/tactical function*, to a more general *wide holistic approach*, according to which Political Marketing is regarded as an organisational philosophy (Henneberg 2002) rather than as a mere transposition of Mainstream Marketing (Maarek, 2007). The change from the narrow approach ‘era’ and the wide holistic approach ‘era’ occurred through a transition period that in this thesis will be identified as the “Between Act” era. Table 2.1. provides a summary of the main features of each era, followed by a detailed discussion in the next three Sections.

Table 2.1. Political Marketing Eras.

NARROW APPROACH ERA	THE BETWEEN ACTS ERA	WIDE HOLISTIC APPROACH ERA
1976 - 1995	1996 - 2003	2004 -2020
NORTH AMERICAN SCHOOL	SCANDINAVIAN SCHOOL	EUROPEAN SCHOOL
INSTRUMENTAL/TACTICAL FUNCTION	MANAGERIAL/STRATEGIC FUNCTION	ORGANISATIONAL PHILOSOPHY
G-D LOGIC	RELATIONSHIP LOGIC	S-D LOGIC
TRANSACTIONAL APPROACH	INTERACTION APPROACH	NETWORK APPROACH
VOTERS ORIENTATION	VOTERS AND RELEVANT STAKEHOLDERS ORIENTATION	SOCIETY AT LARGE
ATTRACT NEW VOTERS	RETAIN EXISTING VOTERS	ESTABLISH MANTAIN AND ENHANCE RELATIONSHIP WITH SOCIETY
SHORT-TERM ORIENTATION	LONG-TERM ORIENTATION	LONG-TERM ORIENTATION
FOCUS ON ELECTORAL CAM-PAIGN	PERMANENT CAMPAIGN	PERMANENT CAMPAIGN
"ADOPTION" OF MARKETING TOOLS "IMITATION"	"ADOPTION" OF MARKETING TOOLS AND CONCEPT	"ADAPTATION" "CREATION"
VALUE DISTRIBUTION	VALUE CREATION	VALUE CO-CREATION
MASS COMMUNICATION	TARGET COMMUNICATION	SELECTIVE/PURPOSIVE COMMUNICATION PUSH/PULL
REINFORCEMENT FUNCTION	MOBILISING FUNCTION	MOBILISING FUNCTION
MEDIATED /UNILATERAL COMMUNICATION	MEDIATED/BILATERAL COMMUNICATION	DIRECT BIDIRECTIONAL COMMUNICATION
TV/RADIO/NEWSPAPER	TV/RADIO/NEWSPAPER	INTERNET/TV/RADIO/ NEWPAPER
MOBILISING MASS	MOBILISING POLITICALLY ENGAGED	MOBILISING POLITICALLY ENGAGED/DISENGAGED
INTELLECTUAL CAPITAL	POLITICAL CAPITAL	SOCIAL CAPITAL
DEONTOLOGICAL/ CONSEQUENTIALIST ETHICS	DEONTOLOGICAL/ CONSEQUENTIALIST ETHIC	VIRTUE ETHICS CIVIC VIRTUE COMMUNITARIANISM
REPRESENTATIVE DEMOCRACY	REPRESENTATIVE DEMOCRACY	DIRECT DEMOCRACY

Source: created by author following Ormrod et al. 2013.

2.1.1. POLITICAL MARKETING AS A "MERE PROCESS": NARROW APPROACH ERA (1976-1987)

A first theoretical formalisation of Political Marketing is provided by Shama (1976) who regarded it as a "*process*" (p. 766) based on transactions happening at election time between political candidates and voters as unique stakeholders of the political market.

This *transaction-based approach* to Political Marketing, or what is called "*Narrow approach*" (Henneberg, 2008), focused on the similarities with commercial marketing, mirroring theories and underlining the use of marketing tools in election campaign based on the Marketing Mix Management paradigm (MMM) (O'Leary and Iredale, 1976). The MMM Theory (McCarthy, 1960) is commonly referred to as *Transaction Marketing* because, in exchange terms, it focuses on frequent, low-risk, singular purchases and new customers acquisition rather than "customer loyalty" or long-term relationships. Most importantly, the MMM concept was rooted in a "Good logic", where the production and consumption processes were independent from each other. As it will be argued later, this separation between production and consumption does not adequately fit politics, which is more similar in nature to the service industry, where production and consumption are not necessarily independent and separate functions (Ormrod et al., 2013). Moreover, Shama's definition was rooted in the marketing concept of that time for which "*the consumer, not the company is in the middle*" (keith, 1960: p. 35). Such concept was translated into Political Marketing terms, suggesting that voters were at the centre of the political process and as such they were the only fundamental stakeholder which candidates should have listened to and targeted, providing them with the product they wanted, in order to win elections (Shama 1976; Mauser, 1983). This is in line with the concept of "Market Orientation" proposed by Shama (1976), who argued that in the 1970s politicians can be seen to acquire such form of advanced campaigning focused on voters rather than on candidates' and parties' as it was in the period 1940-60 with the "Candidate Orientation", or in the 60s with the "Sales Orientation". For Shama (1976), such shift was technologically rooted in the large diffusion of television in the houses of people and mirrored theories in Political Communication (Chaffee, 1975). Indeed, the political agenda at that time was mainly concerned with election campaigns, the messages conveyed to citizens and the television as the principal mean for meeting voters. Put it in Laswell (1948) terms, Political Communication at that time was still

involved in analysing "who/says what/in which channel/to whom/with what effect" (p. 37).

The focus on "Electoral Marketing" was essentially due to a shift from a perspective in which campaigns could not persuade voters, to the principle that campaigns matter, as they could "enlighten the public" (Gelman and King, 1993) and shape voters' preferences (Campbell, 2000).

This was in line with the "*Realist*" view of democracy provided at that time by the political analyst Andrew Gamble (1974) who considered voters as the fundamental stakeholders in the political market and as passive receivers of unidirectional messages created by political parties and their candidates to market the value created by their offerings. This was in line with Political Communication and Sociology theories, which regarded the television, the most used media of communication in electoral campaigns at that time, as a centralized, mainly unilateral means of communication, antagonistic to interpersonal networks (Klapper, 1960).

Therefore, in this "Era" Political Marketing adopted Marketing Techniques and mirrored developments in Commercial Marketing Theory, like McCarthy's (1960) Marketing Mix, adapted by O'Leary and Iredale (1976) to the political marketplace. Moreover, Political Marketing was mainly influenced by the political communication theory rooted in the antagonist effect of Media and was centred on the concept of "persuasive campaign" dominated by the technological developments of that time (large diffusion of TV use).

However, Bagozzi (1975, 1978), argued that as marketing lays on the general idea of *exchange*, social relationships should do the same. In fact, although there is a lack of monetary exchange, social exchange involves the symbolic transfer of both tangible and intangible entities. Following Bagozzi's suggestion, Farrel and Wortmann (1987: p. 298) explicitly embedded the notion of exchange into Political Marketing, defining it as "*a system of exchange…of something of value"* (Table 2.2). However, Farrel and Wartmann's (1987) definition, still focused on election time, where voters are the main exchange partner and promotional activities prevail in a perspective of tactical/instrumental function of Political Marketing that seems to restrict the scope of analysis to communication instruments (Butler and Collins, 1996).

The idea of marketing in Politics started to be recognised and be accepted in this era in a process that lasted 9 years, starting from the formalization of Shama (1976) and culminating in the attempt of the American Marketing Association (AMA) in 1985 to integrate social and political issues in the mainstream marketing thought, by adding the word "Ideas" to the definition of marketing:

"*Marketing is the process of planning and executing the conception, pricing, promotion and distribution of ideas, goods and services to create exchanges that satisfy individual and organizational objectives*" (cited in Fine 1992: p. l).

Although through such definition the AMA rebutted the simplistic belief that marketing was just about firms providing their customers with what they wanted, it was still regarded as a process focused on tactical activities like pricing, promotion and distribution, which not only reduces the variety of instruments available in the Political Marketing Mix, but also ignores its strategic element (Harrop, 1990; Wartmann 1989). Furthermore, "*placing the formal campaign as the central issue is akin to focusing only on the sale negotiation as the core of marketing*" (Butler and Harris, 2009: p. 151). On the basis of the MMM paradigm, for which there were always new segments of the market to target, this short-term orientation of parties within the political marketplace was unsurprising. Yet, because of its narrow consideration of Political Marketing and thanks to the progressive affirmation of the new "service" logic, the Instrumental/Managerial school experienced strong criticisms, which progressively led to the affirmation of a different conceptualisation of Political Marketing. Also, the spread of new forms of more direct types of democracy, made possible by creation and diffusion of more interactive means of communications like the Internet, contrasted the representative democratic system of this period and the unilateral communication process with a passive receiver. Consequently, a change in Political Marketing theories and practice was on the way.

2.1.2. POLITICAL MARKETING: THE BETWEEN ACTS ERA (1988-2003)

As mentioned in the previous Section, the MMM paradigm, being closer to the G-D rather than to the S-D logic, not only does not fit well the political marketplace but also creates some paradoxes.

The first paradox stems directly from the MMM paradigm itself, which makes the narrow approach too technical and incomplete (Gummesson, 1987). According to Dixon and Blais (1983), the MMM paradigm provided a manipulative approach to consumers who were seen as "fish waiting for a bait" (Gummesson, 1999). In Political Marketing terms, this implied for parties to be distant from voters since they did not listen to their voice, but rather tried to convince them of the validity and goodness of their offers (bait). Therefore, most political parties were not just interested in adjusting to social changes, but rather they would try to influence the direction and intensity of such changes (Johansen, 2005). This meant that Political Marketing, as conceived through the MMM approach, was prone to ignore the importance of voters' participation in the political process and it was likely to contribute to the deprivation of voters of a sense of joint responsibility for the democratic process and outcome (Scammell, 2003).

The second paradox is that, from a political perspective, the MMM paradigm created distance and centralization of power structures (Dalton and Wattenberg, 2000). The MMM paradigm does not embed any (or little) notion of participation or co-creation of value with respect to customer and this, translated into political terms, implies that parties move away from voters, which in turn lose their influence over policy and candidate selection processes and regard politics as a politicians' responsibility consequently decreasing their participation as volunteers and or campaign activists (Dalton and Wattenberg, 2000; Scammell, 2003). This translate into civic and political disengagement (Putnam, 2000) which, from a marketing perspective, is equivalent to loss of market share.

Therefore, in marketing terms, if parties want to gain electoral market shares, they must increase voters’ participation and turnout. It is in this context that the concept of Relationship Marketing (RM) started to emerge in services marketing, as proposed from a group of Scandinavian scholars (Gummesson, 1987). According to this paradigm the focus is on "value creation" rather than on "value distribution" (as it was in the MMM

paradigm), which means that value for consumers is created by the "*interaction*" between them and the firm in the production process (Grönroos, 2000). Hence, the customer is no longer considered as a passive "value destroyer". This process implies the establishment of long-term relationships with customers, a concept not new in Political Marketing. In fact, Blumenthal (1980) developed the concept of "*Permanent Campaign*", later revisited by Klein (2005), for which governing with public approval requires a constant political campaign aimed at building long-term relationships with stakeholders at large. With the affirmation of this approach, *interaction* becomes a central marketing concept taking over *exchanges*, which remains still important but could not exist without good interactions (Grönroos, 2006). It is in this context that Lock and Harris (1996, pp. 21-22) provided a definition of Political Marketing which took into consideration not only exchanges of value, but also interactions at both aggregate and individual level between political organisations and the environment in which they operate. This constituted a first step towards a "*wide interpretation*" of Political Marketing, by looking closely at strategies for positioning, communication and interactions not only with voters but with the environment in general (Table 2.2). However, it is only with Henneberg (2002) that the long-term nature of such relationships and the notion of mutual interaction make their appearance, mirroring RM's definitions (Table 2.2). Moreover, Henneberg's (2002) definition takes into consideration more than one stakeholder, contrary to the transaction-based approach. Specifically, Henneberg (2002) mentions "*society*" at large which is in line with the reasoning that "*a priori linking of specific stakeholder groups to the definition of Political Marketing can be too restrictive*" (Ormrod et al., 2013: p. 17). This is mainly because political actors must rely on more than just the favour of voters at election time (Kotler, 1975; Newman, 1994). Rather, they need to interact and exchange value with competing candidates/parties, mass media, members of their own parties, private and public corporation and so forth (Newman, 1994; Henneberg, 2002; Ormrod, 2005, 2007; Dean and Croft, 2001) and not just at election time.

From a relationship marketing perspective, even the focus on mediated communication started to be questioned (Swanson and Mancini, 1996; Blumler and Kavanagh, 1999), because the media were seen as a filter between politicians and voters, which increased the gap between the two, fostering the idea of politics as politicians' responsibility which, ultimately, encouraged disengagement (Webb, 2000). On the contrary, RM in politics should try to fill the gap between services provider (parties) and

users (voters) by establishing an image of trustworthiness through the fulfilment of promises and creation of intimacy (Ormrod et al., 2013). This mirrors the assumption of Grönroos (1994) in marketing literature for which "a *firm pursuing a relationship marketing strategy.... develops over time more and tighter ties with its customers. Such ties may, for example, be technological, knowledge-related or information-related, or social in nature. If they are well handled they provide customers with added value, something that is not provided by the core product itself. Of course, price is not unimportant but is often much less an issue here. Thus, relationship marketing makes customers less price sensitive*" (p.11).

Ultimately, developing long lasting relationships, RM represented the opportunity for parties to increase Political Participation and social involvement of citizens (Ormrod et al., 2013). In fact, the involvement of the public in political activities is relevant to the concept of *value-consumption* developed by Dermody and Scullion (2001: p. 1088). Accordingly, it is no more the transcendent value of a product that determines its value, rather the customer experience in consuming it. This attribution of value applied even to non-tangible experiences like the voting experience itself (Dermody and Scullion, 2001). Therefore, Political Marketing must be seen as a "*process of signification and representation*" (Dermody and Scullion, 2001: p. 1090) which "*can make politics meaningful to the electorate by understanding the different meanings ascribed to political consumption*" (p.1095).

The above discussion brings to light implications for political communication, "*particularly in the dyadic creation of message meanings between sender and receiver*" (Dermody and Scullion, 2001: p. 1095). Indeed, exchanges were not anymore characterised by one-off transactions between an active and creative seller and a passive customer (Gamble, 1974), but rather by multiple exchanges with active people (Ford et al. 2003). Such multiple exchanges were facilitated also by the affirmation and diffusion of the Internet as a mean of communication. Indeed, the many actors involved in the political communication process could personally and more easily interact through blogs, websites, e-mail and chats. Communication was faster and no longer unilateral, but rather personal, symmetrical and two-sided (Wellman, 2004).

In the Political Science field, this raised hope also for more direct and open forms of democracy in Habermas' (1989) terms (see Chapter 3). Indeed, through the Internet,

citizens had potentially equal opportunities to express themselves, to hear and to be heard through direct discussion and deliberation on virtual "*agora*". Yet, such "possibility" remained a hope because the penetration and diffusion of the Internet among the population was still very limited and those that had access to it were the richest and most educated who already participated intensively in politics (Wellman, 2004). Therefore, the Internet at this stage seemed to aggravate the political participatory gap between engaged and non-engaged citizens to the point that Margolis and Resnick (2000) stated that: "*There is an extensive political life on the Net, but it is mostly an extension of political life off the Net*" (p. 14). Hence, in terms of communication studies, the media were still seen as reinforcement agent (rather than as a mobilising one) able to replicate and strengthen participatory patterns already established offline.

Moreover, at this stage, Political Marketing research was still embedded in the ontological assumption that parties could be considered as businesses and voters as consumers. Such economic assumption has led to several criticisms and is regarded as one of the major factors contributing to social and political disengagement (Section 2.3). Hence, we can speculate that in this Era, Political Marketing was not seen under a positive light.

2.1.3. POLITICAL MARKETING: THE WIDE APPROACH ERA (2004 - 2020).

Although Political Marketing was initially embedded in the transaction-oriented framework (O'Shaughnessy, 1990), gradually academics started to accept the relationship-based approach proposed by Grönroos (1990), with the belief that this shift would have helped research in Political Marketing (Bannon, 2005). However, most recently, a new dominant logic stepped into the Marketing field; as "*markets and the study of marketing continually change and adapt to new empirical realities*" (Butler and Harris, 2009: p. 158) so must do Political Marketing. Such new logic was proposed by Vargo and Lusch (2004) who questioned the theory of marketing based on exchanges of value with a new perspective which emphasises co-creation of value, intangible resources and sustainable relationships. Shifting from a G-D to a S-D logic, Lusch and Vargo (2006) suggested rebuilding marketing on the human knowledge, skill, information, connectivity and relationship within human society. RM is considered by them as a steppingstone

between the G-D Logic and their S-D Logic. This is the reason why we considered RM at the basis of the “Between Acts Era”.

Some new aspects of the S-D logic framework have grabbed the attention of Political Marketing scholars.

Specifically, the S-D Logic discards any distinction between goods and services and regards the latter from a perspective of value rather than as a category of market offering (Edvardsson et al., 2005), that is, service is considered as the foundation of exchange with all stakeholders (Vargo and Lusch, 2006). In political terms, this implies the extension and nurture of relationships with society at large and not just with voters. Such emphasis on society at large is fostered also by the AMA which in 2007 defined marketing as: "*the activity, set of institutions and processes for creating, communicating, delivering and exchanging offerings that have value for customers, clients, partners and society at large*" (cited in Hughes and Dann, 2009: p. 244).

Furthermore, the notion of ‘offerings of value’ appeals particularly to Social and Political Marketing. In fact, the S-D logic assumes that the value of an exchange may only be determined by the user through the consumption process, thus recognising that businesses do not provide value in the exchange process per se, rather they make value propositions to customers (Vargo, 2008). This last concept fits particularly well the political context, where political parties’ offerings represent a proposition of value to voters which can be implemented only if the political exchange is successful in the parliamentary and governmental marketplace where politicians can fulfil their promises through the implementation of laws and measures concretising the value of their offer propositions (see Henneberg and Ormrod, 2013). In other words, value creation occurs "*when a potential resource is turned in a specific benefit*" (Lusch et al., 2008: p. 8) and it is created from "*economic actors who exchange a variety of resources that go beyond good and money*" (Michel et al., 2008: p. 154). In this sense, the S-D logic embraces the Resource Based View (RBV) and points towards intangible dynamic resources (Lusch and Webster, 2011), a concept that fits well the political context. Lynch et al. (2006) and O' Cass (2009) considered this concept from a Political Marketing perspective, concluding that when a political party has the capacity to deploy tangible and intangible resources and possesses good organisation processes, it has a competitive advantage over others political actors.

A further striking point of the S-D logic is communication, in here it implies conversation and dialogue which are fundamental elements for building long-term relationships in the political marketplace (Ballantyne and Varay, 2006). Accordingly, *"promotion will need to become a communication process characterized by dialogue, asking and answering questions"* (Vargo and Lusch, 2004: p. 13). Although not explicitly mentioned by Vargo and Lusch (2004), it seems logical to extrapolate that the Internet and Social Media are required both as a technology and as a methodology, in order to effectively exploit the networking service dominant logic. Based on such networking logic, "*the final force that has created an inflection point in the movement toward collaboration is network ubiquity. Increasingly, everyone and everything is connected to each other and each thing*" (Lusch et al., 2007: p. 10) and: *"It is especially important with conversation and dialogue that all parties are transparent and truthful with each other. This approach to communication should include not only customers, but also employees and other relevant stakeholders that may be affected by service exchange. All stakeholders need to be part of the market dialog. Thus, marketing conversation will (should) occur as an integral part of the marketplace – the market itself will be part of the conversation. Thus, the marketplace itself becomes part of the marketing which no single firm can control*". This last argument is in line with Gueorguieva's (2008) argument about the potential of the Internet in allowing people to create their own contents, thus, reducing the level of control politicians have over their own image or that of competitors.

Arguably, the S-D logic should prove theoretically attractive to Political Marketing (Butler and Harris, 2009). A two-way dialogue, a direct interaction without filters, the possibility for people to influence standards of service production and participate in the process of co-creation of values should appeal to Political Marketing, especially if considered as philosophy at the service of society.

Furthermore, all these concepts, especially co-creation of values and direct interaction, appeal also to a participatory kind of democracy (see Chapter 3) which is often seen as one of the means through which to cure the "*democratic malaise*" (Savigny and Wring, 2009). Particularly, in political terms, for co-creation of values and significant interaction to happen, the actual low levels of Political Participation must be increased. Hence, the new S-D Logic may be seen as a means through which to achieve such outcome. Therefore, if Political Marketing embraces such logic it could also be

appreciated as a means of improving Political Participation and therefore as an instrument aimed at a societal benefit.

2.2. TOWARDS A SOCIETAL WELFARE AIMED DEFINITION

Although, over the years, Political Marketing Theory has been mirroring developments in mainstream Marketing (Henneberg, 2002; Baines et al., 2003), Ormrod et al. (2013) argue that several fundamental differences exist between political and commercial marketing. As Dean and Croft (2001) state: "*traditional marketing frameworks do not fit neatly into a Political Marketing configuration*" (p.1197) and this "*natural diversity of political contexts, structures and processes complicates the process of theory development in Political Marketing*" (Butler and Harris, 2009: p. 149). Arguably, a shift from "imitation" and "adoption" towards "creation", “integration” and "adaptation" is needed in Political Marketing theory and research practice.

However, until now, research in Political Marketing has been carried out on epistemological and ontological assumptions coming from the economic field (Savigny and Wring, 2009) and few studies have taken into consideration Political Marketing as a discipline whose aim should be that of benefiting society. Arguably, this is one of the reasons that compels Political Marketing to defend and justify itself from critics (see Section 2.3). However, this is not the only reason and any "*guilt by association suspicion of Political Marketing research probably derives from a perceived connection with dubious marketing practices both of politicians and businesses*" (Butler and Harris, 2009: p. 150). Therefore, not only a theoretical shift from adoption to adaptation (Ormrod et al., 2013) and from imitation to integration (Lees-Marshment, 2003) is needed, but also a change in Political Marketing practices from questionable and suspicious, to good and beneficial for society, is advocated by scholars.

These changes may path the way to a new direction for Political Marketing, regarded as a means for better democracy (Quelch and Jocz, 2007). Therefore, is essential to provide a definition which originates from Political Marketing Theory, but that at the same time reflects the influence of Political Science, Sociology and Communication studies over the years, so that to highlight advances in research and start to consider Political Marketing as beneficial for society. The proposed definition builds upon several

historical definitions provided over the years (Table 2.2) and tries to strike a balance between the needs of politicians, marketers, citizens and society at large:

"Political marketing is a perspective from which to understand phenomena in the political sphere (Ormrod et al., 2013: p. 18), which includes those "*set of activities, processes or political institutions used by political organizations, candidates and individuals*" (Hughes and Dann, 2009: p.244) and is "*concerned with reciprocated exchanges of value with their environment*" (Winther-Nielsen, 2011: p. 29) *"through interactions in the electoral, parliamentary and governmental markets*"(Ormrod et al., 2013: p. 18) in order to *" establish, maintain and enhance long-term political relationships"* (Henneberg, 2002: p.103) "*in ways that benefit*" (AMA, 2004) "*society at large*" (Henneberg, 2002; Hughes and Dann, 2009).

The last part of the definition is the most relevant to this study since it may help to overcome criticisms to Political Marketing (Section 2.3). The argument is that people could really benefit if the political and public realms were guided by the best of Political Marketing, which should be a discipline led not only by economics and marketing principles and frameworks but also by Political Science and Social Theories. Undoubtedly, since Political Marketing is mostly grounded on economics principles, might alter the basis of democracy and therefore attracts a wide array of criticisms (Savigny and Wring, 2009). However, this is particularly likely if Political Marketing is mainly (or only) thought of as based on mainstream marketing and directed at satisfying personal needs, wants and preferences, ultimately reinforcing materialism and individualism (Quelch and Jocz, 2007).

Therefore, in the following discussion, marketing will not be considered as an economic function or as a business practice but rather as a social force aimed at societal welfare (or the benefit of society at large). This concept is nothing new in the Marketing discipline given that researchers have often tried to understand marketing's role in improving societal welfare. In fact, as early as 1934 Breyer claimed that "*marketing is not primarly a mean for generating profits for individuals. It is, in the larger, more vital sense, an economic instrument used to accomplish indispensable social ends*" (cited in Quelch and Jocz, 2007: p. 7). From this societal perspective, marketing should contribute to improve standards of living and even foster national economic development (Kotler and Keller, 2012). This is a concept that must be particularly relevant to Political

Marketing, since the nature of the political process is such that the implementation of "promises of value" has consequences on society as a whole (Egan, 2005).

Table 2.2. Historical account of definitions of Political Marketing.

ERA	AUTHOR/S	DEFINITION
NARROW APPROACH	Shama (1976)	"*Political marketing is the process by which political candidates and ideas are directed at the voters in order to satisfy their political needs and thus gain their support for the candidate and ideas in question*" (p.766)
	Farrel and Wortmann (1987)	"*a system of exchange in which two or more actors each possess ''something of value'' that can be traded. The ''sellers'' offer representation to their ''customers'' in return for support*" (p. 298)
THE BETWEEN ACTS	Harrop, (1990)	"*political marketing is not simply an investigation of promotional activities such as press advertisements, party political broadcasts, and election addresses. It is a much broader area, covering whether, where, and how a party positions itself in the electoral market*" (p. 277)
	Lock & Harris (1996)	"*the study of the processes of exchanges between political entities and their environment and amongst themselves, with particular reference to the positioning of both those entities and their communications dealing with strategies for positioning and communications, and the methods through which these strategies may be realized, including the search for information into attitudes, awareness and response of target audiences*" (pp. 21-22).
	Henneberg (2002)	"*political marketing seeks to establish, maintain and enhance long-term political relationships at a profit for society, so that the objectives of the individual political actors and organisations involved are met. This is done by mutual exchange and fulfilment of promises*" (p.103).
HOLISTIC APPROACH	Hughes & Dann (2009)	"*political marketing is a set of activities, processes or political institutions, used by political organisations, candidates and individuals, to create, communicate, deliver and exchange promises of values with voters-consumers, political party stakeholders and society at large*" (p. 244)
	Winther-Nielsen (2011)	"*political marketing is concerned with reciprocated exchanges of value between political entities and their environment*" (p. 29)
	Ormrod et al. (2013)	"*Political marketing is a perspective from which to understand phenomena in the political sphere, and an approach that seeks to facilitate political exchanges of value through interactions in the electoral, parliamentary and governmental markets to manage relationships with stakeholders*" (p. 18)

Source: Adapted from Ormrod et al., 2013.

In political terms, one of the ways through which this objective may be achieved consists in fostering high levels of participation of citizens in the political sphere. Therefore, with the help of new communication technologies, Political Marketing should focus on promoting and facilitating political and civic engagement among citizens. However, such perspective and function of Political Marketing have not been addressed adequately (if at all) in extant research. Arguably, this may represent a serious flaw which has brought several criticisms to the field, accused of not engaging consistently and effectively with Ethics, Political Science and Sociology (Henneberg et al., 2009; Ormrod et al., 2013; Perannagari and Chakrabarti, 2020; Quelch and Jocz, 2007; Savigny, 2008). For this reason, the next section presents an excursus over the criticisms brought by academics and practitioners in the fields of politics and marketing, with the aim of showing that a shift in both theory and practice of Political Marketing is necessary to overcome such criticisms.

2.3. POLITICAL MARKETING AND ITS CRITICISMS: THEORETICAL AND EMPIRICAL JUSTIFICATIONS FOR A NEW APPROACH

The basic premise to this study is that "*Political Marketing in its current form is informed by a set of economic assumptions that are antithetical to democracy and serve to disconnect the public from the process of politics*" (Savigny, 2008: p. 29). Therefore, marketing in politics represents an "*ideology of disconnection"* (Taylor, 2006).

Moreover, developments in Political Marketing theory have highlighted critical differences between political and commercial marketing (Baines et al., 2003; Butler and Harris, 2009; Henneberg and Ormrod, 2013; Lock and Harris, 1996) leading to the conclusion that "*traditional marketing frameworks do not fit neatly into a Political Marketing configuration*" (Dean and Croft, 2001: p. 1197). Therefore, theoretical concepts need to be adapted or integrated into the political context rather than adopted as they are (Lees-Marshment, 2001; Ormrod et al., 2013; Perannagari and Chakrabarti, 2020). Researchers must bring their studies to multidisciplinary level (Henneberg and O'shaughnessy, 2007) and adopt a more comprehensive approach to Political Marketing research, integrating concepts from different fields of study (Lees-Marshment, 2003).

This brings us to the first and most relevant criticism to this thesis that is, politics is not a marketing domain (Henneberg, 2004). Arguably, the development and use of a new approach based on "adaption" rather than an "adoption" of marketing concepts in the political sphere seems advisable. In fact, the straight application of marketing techniques to politics has been considered as unethical especially for "*those who believe that politics has a higher purpose than commercial profitability or who acquaint marketing with style rather than substance"* (Baines and Egan, 2001: p. 27), with "*packaging [...] spin [...] rather than political content"* (Ormrot et al., 2013: p. 61).

The second criticism to Political Marketing Theory and research regards the assumption that voters may be understood as consumers (Savigny and Wring, 2009), embedded in a rational choice context. Taylor (2006) argues that such assumption is "*an ideology - perhaps the ideology - of disconnection, of disintegration"* (p. 87) because it idealises a society where individuals are disconnected from the communities in which they live, from their cultural background and their values. Arguably, this criticism might be overcome by the adoption in Political Marketing of a *Communitarian* perspective to research through the concept of Social Capital (Chapter 3, Section 3.1.2 and Chapter 4). In fact, being a multidimensional concept, Social Capital includes in his analysis cognitive elements (shared codes, language and culture) relational aspects (trust, reciprocity and norms) and structural factors (networks) of a society which embed individuals in their social context.

Thirdly, the "*marketisation*" of politics, when closely tied to economic notions, promotes a concept of Political Participation strictly (but not solely) related to the mechanism of elections. Hence, participation comes to be regarded just as a mean through which political actors (competitors) may achieve their goals, namely winning the election and gaining power (Savigny and Wring, 2009). However, in political terms, participation means much more and represents the path towards policy legitimacy, empowerment of people and better democracy (Carpentier and De Cleen, 2008). Moreover, from a social perspective participation is not considered just as an instrumental means through which politicians may satisfy their self-interests, but rather as the process through which civic virtues may be fostered among citizens and the public good may be pursued over the self-interest. However, regardless of the perspective (the individualistic self-interested or the one aimed at the societal welfare) declining participation among citizens and consequently low levels of participation should be key areas of concern for politicians,

sociologists and marketers. Moreover, since the marketing of a "product" is affected not only by its brand identity in comparison with competitors, but also by the overall reputation and standing of the whole industry (Gummesson, 1999; Mortimore, 2002), low levels of participation and increasing disaffection towards politics are problems that involve the political system and its actors in general.

Many authors (Seyd and Whiteley, 1992; Shaw, 1994; Dalton and Wettenberg, 2000) ascribe such disaffection towards politics to the strict implementation of a "manufacturer good marketing" perspective into the political context which, in their view, has led to a strong centralization of powers structure. Centralised politics, inevitably, "*requires the increased use of external professional consultants and market research*" (Johansen, 2005: p. 99) which means that the focus of politics will be on mediated communication (Swanson and Mancini, 1996; Blumbler and Kavanagh, 1999), which in turn increases the gap between politicians and citizens since, especially in the past (Section 2.1.1), media represented a filter which exacerbated the distance between the two to the point that their traditional role of co-producers of policies and new representatives has been denied (Peterson and Godby, 2020). In other words, "*people have effectively been deprived of the notion that they have some responsibility for the political outcome and have been led to believe that politics is the responsibility of politicians and that, rather than citizens, they are invited to act as self-interested shoppers on the look-out for service delivery"* (Johansen, 2005: p. 98). The establishment of such marketing led ethos in the political marketplace has been facilitated by the affirmation of a liberal elitarian form of democracy (Savigny and Wring, 2009), for which the only role of voters is to elect rulers who will unilaterally establish what is good for society (Held, 2006). This is because citizens, from the elitarian perspective, are considered as individuals with limited knowledge and interest in political affairs (see Chapter 3).

The debate presented above underpins a narrow approach to Political Marketing (Section 2.1.1) and, arguably, is at the basis of low levels of Political Participation. However, scholars have considered many other factors as contributing to the democratic malaise in western countries. Many authors embrace a cultural and technological perspective (Lloyd, 2004; Norris, 2000) while others focus on apathy (Habermas, 1989; Henn et al., 2002; Marshall, 2001), declining levels of Social Capital (Putnam, 2000) or on the “Marketing-savvy” voters that perceive the marketing strategy "*behind the*

political campaign […]as demeaning to the high principles of politics and democracy" (Butler and Harris, 2009: p. 151).

Considering what discussed so far, this study proposes a new perspective from which conducting Political Marketing research, which looks closely to the service-dominant logic with an emphasis on the improvement of citizens' life and the societal welfare in general, through the investigation of Political Participation and the use of the Internet as a means for a better democracy but engaging also with Political Science and Sociology and particularly with the concept of Social Capital. Therefore, the focus of investigation will not be on "*what determines a citizen's vote"* (Johansen, 2005: p. 102) but rather on what mechanisms may improve Political Participation in general. Indeed, examining the factors that determine a citizen's vote means focusing on "*winning the single battle*" (Johansen, 2005: p. 102) which implies addressing election and short-term relationships at the advantage of parties and political candidates. All these aspects are at the basis of the heavily criticised narrow approach to Political Marketing and are also considered as one of the causes of the democratic malaise experienced by western democracies. Rather, Political Marketing research should aim at a "*holistic*" long-term approach and should preserve "*the benefit of society at large"*. Indeed, as the role of modern marketing is to improve people's lives (a concept particularly relevant to Social Marketing) so it should be for Political Marketing (Kotler et al., 2002). Indeed, focusing on mechanisms which may improve Political Participation, not just at election time, may be regarded as the attempt to improve societal welfare since high levels of Political Participation are deemed essential for a healthy democracy (Held, 2006). In turn, a healthy democracy is considered fundamental for a healthy society and its general welfare. This reasoning is in line with the definition of Political Marketing provided in this study. The main argument is that recent developments in marketing theory, particularly RM and the S-D logic, must serve as means for a new wave of conceptualisation which should take into consideration also social and ethical arguments in the political context and provide a route to a more participatory type of democracy (Chapter 3). This approach "*could help bridge the conceptual gap between political science and marketing, as they both struggle to analyse contemporary democratic process"* (Johansen, 2005: p. 102). However, as Ormrod and Savigny (2012) and Henneberg et al. (2009) argued, very few attempts have been made to integrate and adapt marketing concepts to politics in a perspective which considers implications for

democracy and, thus, society at large. Perannagari and Chakrabarti (2020) in their bibliometric meta-analysis of Political Marketing studies for the period between 1996 and 2018 further confirmed this trend. This, inevitably, has raised ethical concerns about the applicability of marketing activities in the political sphere (Lees-Marshment, 2019b), as summarised in Table 2.3.

Table 2.3. Ethical Concerns of Marketing Applications to Politics

Field	Ethical Concern
Policy	Marketing encourages a focus on short term actions the market wants now, rather than more effective long-term solutions.
	Emphasising the need to ensure policies appeal to the market reduces policy innovation.
Leadership	Market research encourages political leaders to listen to public opinion, which is problematic due to the lack of information, expertise, and objectivity.
	Consumerists voters do not judge governments fairly.
	Prevent politicians showing leadership on unpopular but socially beneficial policies such as climate change.
Representation	Knowing how to appeal to the most influential markets give some people more power than others.
	Marketing can encourage false and inauthentic stereo-typical appeals such as photo opportunities between politicians at cultural events or eating ethnic foods.
Citizenship	Treating voters like consumers discourages them to consider ethical, moral and community aspects.
	Marketing politics like a product encourages focus on policies that produce tangible outcomes (in the short-term), rather than what actually works (in the long-term).
Participation	Voters are more important than members, reducing the value of party participation.
Authenticity	Research leads candidates to change their policies, presentation and even personalities, rendering politics to a false shopping exercise.

Source: adapted from Lees-Marshment (2019b: pp. 251-252)

Moreover, the shift from a G-D logic to a S-D logic, the pursuit of co-creation of value and bidirectional dialogue embedded in a network relationship perspective could be facilitated by the diffusion of new technologies and especially the Internet. This is because the Internet and all its derived products (i.e., SNSs) can be considered the most interactive medium to date. They may enhance users' participation and generation of content and thus may fit well with the S-D logic where bilateral and direct dialogue, co-

creation of value and interactions are dominant aspects. The Internet may appeal not only to Marketing but also to Political Science and Sociology. Particularly, from a political science perspective, an informed public is essential to the proper functioning of democracy (Delli Carpini, 2000). Since the Internet is a mass of information it might be regarded as a powerful democratising agent. Arguably, this may lead to increasing citizens' awareness and involvement in self-governance which from a sociological perspective means that the Internet could enhance Political Participation and voter learning (Tolbert and Mc Neal, 2003; Drew and Weawer, 2006). Hence, the study of the Internet and its tools like Social Network Sites, blogs, micro-blogging and so forth, may contribute to overcome criticisms on Political Marketing at two levels: practical and theoretical. Indeed, apart from the ones already discussed, Henneberg (2004) and Ormrod et al. (2013) identified other criticisms relevant to Political Marketing which the use of new communication technologies by political parties and candidates may help to overcome (Table 2.4).

Table 2.4. Criticisms to Political Marketing Practice and Theory.

CRITICISMS TO POLITICAL MARKETING	
POLITICAL MARKETING PRACTICES	POLITICAL MARKETING THEORY/RESEARCH
1. Elections can be bought (only rich candidates can afford to run). 2. Politics has no more content since it is obsessed with "spin" and "packaging". 3. Political marketing has caused more populism. 4. Parties and politicians are focused on selling. Politics is something totally different. 5. Political marketing uses manipulative methods and therefore Political Marketing practices are not compatible with how voters should make an informed voting decision. 6. Too much personal negative campaigns.	1. Research is not focused on politics but on communication tactics and campaign with a short-term orientation. 2. Research is unsophisticated and does not engage with ethics and political frameworks. 3. Politics is not a marketing domain. 4. No theoretical and ethical frameworks exist that can allow valuable discussion on Political Marketing.

Source: adapted from Henneberg (2004) and Ormrod et al. (2013).

For instance, "*one of the most damming criticisms [...] is the accusation that democratic election can now be bought"* (Henneberg, 2004: p. 229). The reasoning behind this claim is that "*modern elections are won by the candidate or party with the most*

professional campaign" (Ormrod et al., 2013: p. 60). Yet, in order to implement a professional campaign, parties must hire and pay for marketers, ads expert, media slots and cover all the necessary expense to conduct a professional campaign (Franklin, 1994; Newman, 2001). Thus, it has been argued that only the party with more financial resources wins the election, regardless of the validity of the political argument (Wray, 1999).

However, several objections can be brought to such reasoning, based on empirical evidence related to the use of social media. For instance, the Internet may help to drastically reduce campaign costs with no detriment to the effectiveness of the campaign. An example is Beppe Grillo's Five Star Movement in Italy. This party exploited the web and social media for carrying out its political activities, employing the Internet not only as a means of spreading its own political message, but also as the principal instrument for its fundraising activity, avoiding the high cost of advertising on TV, billboards, newspapers and organization of events. The outcome of their strategy was that at the 2013 general election the new Five Star Movement gained 26% of votes in the Lower House (coming second to the established Democratic Party - PD) and 24% of votes in the Senate, beating Silvio Berlusconi's PDL, the Centre Union, Lega Nord and other minor parties. The Five Star Movement electoral campaign costs was equal to 348.506,49 Euro (www.beppegrillo.it, 2013) against the 6,5 million Euro of PD (politica.nanopress.it, 2013). This evidence suggests that online social platforms can be effective in increasing a party's potential through the effective use of scarce resources, the generation of valuable information and the promotion of greater responsiveness in the political process (Kotler and Kotler, 1999), ultimately facilitating the process of establishing long term relationships with core stakeholders. Ultimately, new communication media are changing the way Political Marketing is considered by politicians, professional political marketer and even academics.

Furthermore, online political engagement provides an opportunity for all political stakeholders and even citizens to persuade others to participate in political activities. Given the high cost involved in traditional types of Political Participation, 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 traditional communication tools (Kaplan and Haenlein, 2012). This makes it desirable to use social media as an approach to the promotion of political behaviour, assisting the need for greater public

involvement in politics. This ultimately would benefit society at large, as it will enhance democratic practices through large scale discussion and deliberation on virtual agora (see Chapter 3). Moreover, the ‘big data’ originating from social media allow for more effective market segmentation, helping politicians to better understand how different voters segments want to participate in the political process, ultimately creating more desirable individualised options for involvement (Lees-Marshment, 2019b).

The study of SNS within the Political Marketing frameworks can help overcome several criticisms. "*Political marketing is a pervasive force in our lives [...] and along with problems there is also the potential for it to strengthen the functioning of political system and society. What makes the differences is how Political Marketing is practiced*" (Lees-Marshment, 2009: p.247). However, not only good practices, but also more conceptual rigour is needed. Particular attention must be given to ethical consequences of Political Marketing practices on democratic systems (Ormrod et al., 2013). Also, Political Marketing research must address ethical concerns, by fostering and designing better democratic frameworks drawing from Political Science, sociological concepts like Social Capital and the study of the new technologies like the Internet and Social Media.

2.4. SUMMARISING: IDENTIFIED GAPS

From the literature review undertaken in this section we can identify several gaps in Political Marketing theory and research.

1. **Political Marketing theory**. Extant theories of Political Marketing have mostly considered citizens as perfectly informed, rational, involved and knowledgeable individuals acting according to a cost-benefit analysis (Savigny and Wring, 2009; Taylor, 2006), rather than as misinformed and disengaged people as suggested by empirical evidence (see Chapter 1). Arguably, this assumption of voters as rational decision makers which stems from the economics approach to politics in the tradition of Anthony Downs's (1957) work "*Economic Theory of Democracy*", has not helped to solve the empirical problem of low levels of political engagement among citizens. Empirical evidence suggests that grounding Political Marketing only on theories and concepts originating from the economics disciplines might not be effective in enhancing citizens' participation in the political process. This instrumental approach to Political Marketing as a mere transposition of marketing principles and tools to politics, not only has raised several criticisms (Henneberg, 2004; Lees-Marchment 2019b; Ormrod et al., 2013) but also it has been considered as one of the main causes of citizens' disaffection towards politics (Savigny and Wring, 2009). Very rarely Political Marketing as a discipline has engaged with theories of democracy (Henneberg et al., 2009; Perannagari and Chakrabarti, 2020), ethical questions (Henneberg and O'Shaughnessy, 2007; Lees-Marshment and Raynauld, 2020; Ormrod et al., 2013) and theories of participation (Scammell 2003). Indeed, as Brown et al. (2018) argue, Political Marketing theory has, so far, been essentially static, "*backward even*" (p. 1359), to the extent that theory in the field is still bound to early marketing concepts. Recent developments in marketing theory, particularly the relationship approach and the S-D logic, must serve as means for a new wave of conceptualisation which takes into consideration social and ethical arguments in the political context and provides a route to a more participatory democracy. This "*could help bridge the conceptual gap between political science and marketing, as they both struggle to analyse contemporary democratic process"* (Johansen, 2005: p. 102). Therefore, this study investigates the problem of voters'

disengagement in politics focusing on theories originating from politics (*Mobilisation Theories*), ethics (*Virtue Ethics*) and sociology (*Social Capital*), and "*adapting*", rather than "*adopting*", concepts from the economics and marketing fields like trust, reciprocity, long term relationships and intimacy.

2. **Political Marketing Empirical Research**. To date, empirical research in Political Marketing has been focusing on the welfare of political parties and relevant stakeholders and for this reason it has been the object of criticism. The most prominent criticism is that politics has a higher purpose than commercial profitability and should benefit society at large rather than just parties and relevant lobbies (Baines and Egan, 2001).

   Although it can be argued that focusing on the problem of enhancing Political Participation eventually will benefit parties, it may be retorted that it will also benefit society at large, thus overcoming some of the criticisms brought to the field. Indeed, although some discrepancies do exist among theories of democracy with regards to which levels and intensity of participation are desirable and good for democracy, engagement in politics is understood as something positive and necessary in democratic societies (Livingstone, 2013). Thus, investigating this problem and trying to solve it can be regarded as an attempt to benefit society rather than just political parties.

   Moreover, the lack of a clear ethical position with respect to democratic fundamentals and political practices holds back the research field of Political Marketing (Henneberg and O'Shaughnessy, 2007). For this reason, the underpinning of the current study will be the Ethical Theory of Virtue, abandoning traditions of the last decades based on the *deontological* and the *consequentialist* approach. Furthermore, such theory is in line with the construct of Social Capital, which has at his basis the concept of civic virtue.

   Another gap in Political Marketing research is that so far it has been grounded on epistemological and ontological assumptions originating from the positivism perspective grounded in the economic field (Savigny and Wring, 2009), thus regarding political parties as corporations and voters as rational decision makers. This creates a sort of paradox in terms of scientific methodology. In fact, those assumptions assume that parties "are" rather than "behave" as if they were businesses (ontological claim) (Savigny, 2008). However, from a positivism

perspective, models are used to describe and potentially predict what happens in reality, because reality is already there, and the world exists independently of our knowledge of it. So, we cannot "create reality". As such, the basic assumption that parties must be considered as businesses and voters as consumers creates a dissonance with the principle of positivism. Firstly, it must be investigated and discovered in the real world whether they (parties and voters) effectively “are” businesses and consumers. Only after such observation has been validated in the real world it can be assumed also in the theoretical field. Thus, a shift is needed also in the approach of empirical research. For this reason, the fundamental point of view of this study is that knowledge, although starting from our senses (Hume cited in Hay, 2002), "*is mediated by the concepts we use to analyse it, so there is no way of classifying, or even describing, experience without interpreting it*" (Marsh and Furlong, 2002: p. 23). Furthermore, social phenomena are fundamentally different from natural phenomena since they do not exist independently from the social context in which they are embedded. This last assumption will be the leading principle of this research which will consider attitudinal and cultural norms (reciprocity, trust and shared values) of the social context in which people are embedded at the centre of the theoretical framework of this study. Specifically, this research transcends the rational choice perspective of self-interested citizens aiming at the maximisation of their own benefit and investigates cultural aspects and structural dimensions of relationships, as elements able to affect the decision-making process of citizens through the concept of Social Capital.

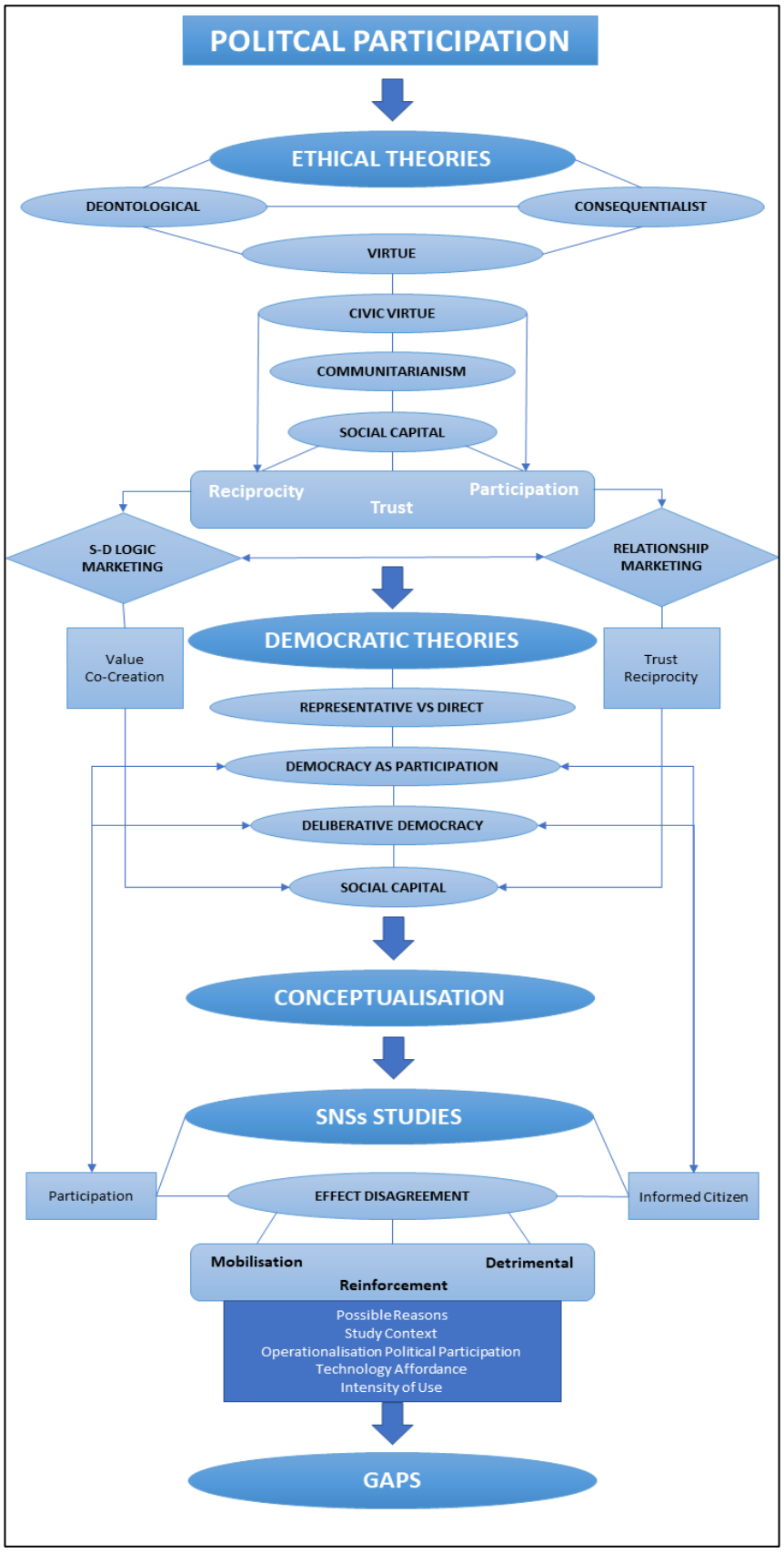
3. LITERATURE REVIEW ON PARTICIPATION

As highlighted in the previous Chapter, one of the gaps identified in the field of Political Marketing is that it needs to engage with theories of democracy ethical questions and theory of participation, to provide itself with legitimacy and bring relevant improvements in the political field and in society.

In particular, the issue of Political Participation has been of critical interest for sociologists and political scientists in the last decades, since it has become axiomatic that wide participation means better democracy (Fox, 2014; Held, 2006; Pateman, 1970; Van Deth, 2014; Verba et al. 1995). However, what is meant by Political Participation and how this can affect democracy has been the cornerstone of a long debate in both Social and Political Science (Fox, 2014; Held, 2006; Van Deth, 2014). Therefore, following the suggestions of Henneberg and O'Shaughnessy (2007), Henneberg et al. (2009), Lees-Marshment (2019b), Lees-Marshment and Raynauld (2020), Ormrod et al. (2013) and Perannagari and Chakrabarti (2020) when approaching Political Marketing research, it is important to delineate the concepts of democracy and Political Participation and show how these are interconnected and grounded on ethical theories.

The literature review of this Chapter has multiple outcomes. First, it discusses and delineates the ethical approach underlying this study, namely "Virtue Ethics" (Section 3.1). Second, it reviews the concept of citizens' political participation according to different theories of democracy and establishes a link among the ethical framework of this research, Political Participation, Political Marketing and Social Capital Theory (Section 3.2). Third, a comprehensive definition of the concept of Political Participation is provided drawing, upon criteria identified through an extensive overview of the literature (Section 3.3). Fourth, the relationship and the impact of new digital media like the Internet and the SNSs on Political Participation is addressed following the principle of "Technology Affordance" under the logic of "Technological Determinism" and the Intensity of use of SNSs (Section 3.4). Finally, gaps are identified (Section 3.5). Figure 3.1, provides a conceptual map of the chapter and highlights the main themes emerging from the review of the relevant academic literature.

Figure 3.1. Chapter 3 Conceptual Map.



Source: created by author.

3.1. PARTICIPATION IN ETHICS

Engaging with ethical theories is important for Political Marketing, since the lack of a clear ethical position with respect to democratic fundamentals and political practices holds back the research field (Brown et al., 2018; Henneberg and O'Shaughnessy, 2007; Lees-Marshment, 2019b). The aim of this section is to pinpoint the ethical framework under which this study will be conducted, namely Virtue Ethics and its political translation that is Communitarianism, which are in line with the advocated shift in Political Marketing towards a societal welfare definition (Chapter 2, Section 2.2). Indeed, as it will become evident from the review, societal welfare and Communitarianism provide the natural context for the concept of Social Capital.

However, the scope here is not to provide a comprehensive account of all the possible ethical theories existing in political philosophy, rather to provide a critical analysis of the reasons for choosing a particular framework, acknowledging that "*the application of ethical frameworks does not generate any final answer, as no ethical debate is ever final; ethical questions can only be taken further, not answered*" (Ormrod et al., 2013: p. 107).

3.1.1. VIRTUES AND THEIR REVIVAL AS EMBEDDED IN A COMMUNITARIAN PERSPECTIVE FOR THE COMMON GOOD.

Taking an ethical perspective is important for understanding what is considered good or not good, fair or unfair, socially desirable or avoidable for the common sake of the collective. Generally speaking, ethical questions can be observed not only in politics and sociology but even in the marketing field, especially in social marketing, through social issues related campaigns. For instance, anti-smoking campaigns apart from pinpointing how smoking negatively affects the smoker, stress the consequences that such decision (smoking) has on other members of the community, such as children and family. The same can be said for campaigns on safe driving, pollution and so forth. The negative consequences that a specific human behaviour may have on the rest of the community are something central to the concept of Social Capital especially in Coleman (1988) who defined those as bad externalities. From an ethical point of view, and from the Social

Capital perspective, those negative externalities should be avoided or at least reduced to a minimum.

Hence, exploring participation from an ethical perspective means to understand how politicians ought/should act (normative approach) to encourage citizens participation in politics and avoid the negative externalities that non-participation could bring to society.

However, a critical evaluation of the *Deontological* (Kantian) and *Consequentialist* ethical frameworks in which modern democracies are embedded is needed, to understand how to engage citizens in the democratic process (Hartley and Watson, 2014).

Particularly, the deontological approach, grounded on the Kantian thought, stated that actions should flow from elemental principles which represent universal moral rules for the action of all individuals in a society (O'Shaughnessy, 2002). Universal, from the Kantian perspective, means that those rules are always valid irrespective of time and contexts. Such moral absolutism presents several shortcomings. First, very little is mentioned on how society should arrive at these rules (O'Shaughnessy, 2002). Second, in its moral absolutism, the deontological approach does not leave space for conceptualization and define rules and norms with no regard to circumstances. To put it into Political Marketing terms, considering as an example the criticism of negative advertising in politics (Chapter 2), a person or society may suggest prohibiting it since for them negative advertising might represent a morally unacceptable practice. But, as it can be argued, negative advertising represents information that can be crucial for the assessment of the quality of the service provider, in this case the political candidate. Indeed, it could represent a fundamental element on which voters may base their expectations and may achieve an informed opinion. Furthermore, a deontological approach to Political Marketing would hinder even theoretical research. In fact, for the convinced Kantian, once a model has been elevated to universal rule there will be no alternative or possible deviation from that model. We can just think about the ongoing debate on whether to treat voters as consumers, embedded in a context of political consumerism, or as citizens, thus as not perfectly rational decision makers (Lees-Marshment, 2009: p. 13; 2019b: p. 45). From a deontological perspective, if the model of decision making based on objective information and full rational deliberation was

elevated to universal rule, no further discussion could take place, hindering debates, research and thus the creation of knowledge.

As far as the consequentialist tradition is concerned, it states that the morally right action is the one with the best overall consequences (Ormrod et al., 2013). In political terms, following the recent concerns on the consequences of Political Marketing practices for society (Henneberg, 2004), the fundamental question could be related to the ethical values of Political Marketing activities. First, the answer to such question may vary on the basis of how Political Marketing is conceptualised and according to our view of democracy. Looking back at the first stage of Political Marketing history (Table 2.1, Chapter 2, Section 2.1), we could say that if the consequences of the application of marketing tools in politics, as a result of an instrumental approach, have been the centralisation of power, the marketisation of politics, the professionalization of campaigns and the disengagement of citizens from politics, then the application of marketing to politics is unethical according to the consequentialists. On the other hand, if we consider good government as responsiveness to public opinion, then there would be some vindications of the marketing application to politics. However, the consequentialist tradition does not fit Political Marketing as conceptualised in this study. For instance, if we look at political campaigns, consequentialism may justify a short-term approach, since in marketing terms it means maximising popularity in opinion polls without considering other consequences. But even when other consequences are taken into consideration, such process of considering all the possible eventualities of an action will become too time consuming, and from both a marketing and a political perspective, where promptness and good responsiveness to the public are central issues, this would be a considerable shortcoming (Ormrod et al., 2013).

Rather, "*ethics would benefit from an adequate moral psychology, such as that found in ancient Greek ethics, where one can look for norms in human virtues*" (Timpe and Boyd, 2014: p. 1). Indeed, differently from the deontological and consequentialist approach, Virtue Ethics grounds moral action in the real agent and thus takes into consideration emotions and personal motivation of acting (Timpe and Boyd, 2014). Therefore, virtue ethics focuses on "being", while deontological and consequentialist perspectives focus on "doing". As we have seen earlier in this review, this reasoning is in line with a service marketing logic where the features of the service provider are fundamental elements for consumers to develop an assessment of the possible quality of

the service and since the political context is closer to a service marketing perspective, the features (virtue) of the service provider (candidate/party) are essential elements to allow citizens to reach an informed opinion in political terms. Moreover, virtue ethics takes into account emotions, attitudes and personal motivation of people to explain their actions and this matches not only the considerations brought earlier in this work that voters cannot be considered as perfectly rational individuals, but also the multidimensional construct of Social Capital which is regarded in this study as the set of cultural, relational and structural aspects which include trust and reciprocity as fundamental variables of the concept (see the definition of Social Capital in Chapter 4).

Many authors (e.g., Henneberg et al., 2009; O'Shaughnessy, 2002; Timpe and Boyd, 2014) consider *Communitarianism* as the logical translation of Virtue Ethics in the political sphere. "*Communitarianism locates virtue within the context of a parochial social setting [...] ethical tradition and sensitivities are seen as arising out of community*" (O'Shaughnessy, 2002: p. 1086), that is the "good" of democracy is the one favoured by society whose actions should not be guided by universal and abstract principles. Thus, if virtue is what the community teaches, then it can be claimed that any community/culture have its own standard of virtue. In Political Marketing terms, this means that some practices may be more acceptable in some countries than in others. Also, it means that the research context matters and that attitude, beliefs and shared codes and values must be taken into consideration when conducting research within the political field. These concepts are embedded in the notion of Social Capital (Chapter 4).

However, for the aim of this thesis, the focus will not be on all virtues in general (Moral, Intellectual, Theological) but rather on "C*ivic Virtue*" and on the idea that reciprocity and trust (elements of Social Capital) are internalised norms of individuals which make them virtuous and are central to social cooperation and political life (Hartley and Watson, 2014).

3.1.2. CIVIC VIRTUE AND THE COMMON GOOD

The key element of civic virtue is virtue itself, which comes from the Greek word "*Arete*", meaning "*excellence*" related to certain activities or actions. However, although used as synonyms, virtue is a distinctive form of "arete": not just excellence but moral excellence (Newstead et al., 2018) and specifically excellence of character or of intellect and as such it is like a "*blueprint*" for a person for how to think, act and behave.

Civic Virtue refers to the connection between citizens and the community at large and how individuals ought/should behave (normative sphere) in the civic and social context to be considered good citizens. Following the classical republican tradition in both its Aristotelian and Roman forms, civic virtue is a "*disposition to further public over private good in action and deliberation*" (Burtt, 1990: p. 24). Therefore, the emphasis is on the public interest which must be defended and preferred over people's self-interest.

Although there are different approaches to what can be considered good at both individual and common levels, the Communitarian perspective is one of the most accepted by political scientists (Ormrod et al., 2013). Communitarians define "*the individual good in whole or in part in terms of its contribution to the common good*" (Plauche, 2006: p. 7). As Cicero claimed, "*we are not born for ourselves alone, but our country claims for itself one part of our birth, and our friends another*" (quoted in Honohan, 2003: p. 30).

For Communitarians Civic Virtue means that everyone is committed to the common good and that he/she is willing to do his/her part in realising it. This, inevitably, ties the concept of Civic Virtue to Political Participation and to the Aristotelian view for which Political Participation is a responsibility of the good and virtuous citizen. Hence, Communitarians call also for a more participatory behaviour of citizens in the political process which is regarded as a core element of a good and robust democracy (Held, 2006; Conway, 2000; Green, 2010; Bakker and De Vreese, 2011) since it improves the awareness of citizenry, enhances Government responsiveness, provides polity with legitimacy and fosters people to support policy implementation.

From the relevance of Political Participation stems the necessity for Political Marketing to engage not only "*with theories of democracy in order to provide itself with legitimacy*" (Henneberg et al., 2009: p. 181) but also with studies of Political Participation, since as Scammell (2003) argued, Political Marketing may be valuable, even essential, for fostering voters' interest and participation. Hence, in the following section, participation as understood in various theories of democracy will be analysed.

3.2. PARTICIPATION IN THEORIES OF DEMOCRACY

As Carpentier and De Cleen (2008) have argued, rather than being an academic construct, the term Political Participation is understood as a part of a political-ideological struggle between minimalist and maximalist approaches. This contrast between those two approaches may be better understood through the lens of theories of democracy.

Held (2006) classified and distinguished among models of democracy on the basis of how these articulate citizens' participation. Specifically, Held identified several types of democracies (Table 3.1) and classified them within two broader categories:

1. *Liberal Representative Democracy*, which tries to control and limit people's self-government and participation through the feature of representation and power delegation.
2. *Direct Democracy*, which defends a direct notion of citizens' participation in the decision-making process.

Table 3.1. Models of democracy

DEMOCRACY	
REPRESENTATIVE	DIRECT
• *Competitive Elitism* • *Legal Democracy* • *Protective Democracy*	• *Classical Democracy* • *Developmental Republicanism* • *Participatory Democracy* • *Deliberative Democracy*

Source: Adapted from Held (2006).

However, the following review focus only on the general concept of *Liberal Representative Democracy* and particularly on the *Competitive Elitism Theory* and on one forms of direct democracy, namely *Deliberative*. The discussion will be articulated in a perspective of Political Participation and on how the aforementioned models deal with it. Also, a link to Social Capital and new Media Technology will be provided. The focus on those specific forms of democracy is motivated by the following reasons:

1. they represent the broad spectrum of the contemporary debate in democratic theories (Henneberg et al., 2009), that categorise democracy under two headings:
    a) Democracy as competition (minimalist approach to participation).
    b) Democracy as participation (maximalist approach to participation).

2. Competitive elitism, by common agreement, has been the most influential model for western democracies for more than fifty years from the beginning of the twentieth century (Carpentier, 2011; Henneberg et al., 2009; Scammell, 2000).
3. Deliberative democracy stems directly from criticisms to competitive elitism.

3.2.1. DEMOCRACY AS COMPETITION: PARTICIPATION IN REPRESENTITIVE DEMOCRACY AND COMPETITIVE ELITISM

In the past, many scholars have advocated a liberal *Representative Democracy* as the most realistic (Held, 2006) and effectively viable "*method*" of governance in which the only role of people is to elect governments (Schumpeter, 1976: p. 269).

Representative Democracy Theory has influenced an important theoretical approach, namely, Competitive Elitism (Held, 2006), whose most famous advocate was the Austrian philosopher and economist Joseph Schumpeter (1976). His approach is based on Elite Theory, whose central aspect is the stratification of society between rulers and ruled, which Schumpeter based on "*realism*": a ruling class is present in all political contexts (Henneberg et al., 2009; Held, 2006). In Schumpeter's (1976) view, citizens act in condition of semi-ignorance (limited knowledge and interest) and their only role is to elect rulers which will establish what is the common good by themselves (Held, 2006). Therefore, the highest level of participation to which citizens may aspire to is about voting in free and fair elections, which are regarded as an essential and valuable part of the democratic process.

From a Political Marketing perspective, and especially from the *Instrumental* school perspective (Chapter 2), Competitive Elitism is very attractive, since Schumpeter (1976) was among the first political theorists to consider elections as something resembling the selling process in the commercial market (Street, 2003). Accordingly, elections were embedded in a logic of competition where the electorate was an uninterested mass which parties needed to mobilise through appropriate techniques that he called "psycho techniques" like spinning, rhetoric, communication practices, etc. Those techniques were regarded as indispensable tools for making democracy work and not as means for corrupting voters as they are considered nowadays (Ormrod et al., 2013). Arguably, this approach fits closely the instrumental, narrow, selling oriented school of

Political Marketing that it is at the basis of most of the criticisms discussed in Chapter 2, and it is regarded as the cause of the current "democratic malaise" (Henneberg et al., 2009; Klein, 2006; Savigny and Wring, 2009). Specifically, Competitive Elitism is focused on a top-down offering system, designed according to needs and beliefs of producers rather than of "society at large" and is centred on the extensive use of marketing's tools and techniques to "sell the president", in a short-term orientation (political campaigns) towards the electorate. Marketization and personalisation of political campaigns, short-term orientation and the identification of Political Marketing with an instrumental approach have created a sort of distance between the electorate and parties, making citizens believe that politics was not something of interest to them (Scammel, 2003).

Therefore, competitive elitism does not fit the concept of Political Marketing proposed in this study for two main reasons. First, because it is sceptical that meaningful long-term relationships with citizens, based on political interaction, are realistically sought after by the electorate which is instead regarded as a mass of uninterested people. Second, because Competitive Elitism is more concerned with leadership than with society (Henneberg et al., 2009).

The aforementioned factors and empirical evidence showing decreasing levels of voters' turnout, increasing disaffection and lack of trust in political parties (Mair, 2005; Franklin, 2004) have given rise to theories favouring more direct forms of participation (see next Section), challenging the legitimacy of representative democracy (Michels, 2011).

3.2.2. DEMOCRACY AS PARTICIPATION: DELIBERATIVE DEMOCRACY AND SOCIAL CAPITAL

Supporters of Direct Democracy in the 1970s advocated the maximum participation of citizens in their self-governance even in sectors beyond the political context (such as households, workplaces, neighbourhoods, schools). In Pateman's (1970) words (cited in Hilmer, 2010: p. 45): "*the notion of a participatory society requires that the scope of the term political should be/must be extended to cover spheres outside the national government*".

Direct democrats considered the representative liberal democracy and its consequent delegation of decision-making power as the leading factor of citizens' alienation from politics (Carpentier 2011). This theory derived directly from Rousseau's concept of "*social contract*" (Michels, 2011: p. 277) for which the participation of each citizen in political decision making is vital to democracy, since it spurs individuals to work together for influencing the decision-making process and developing "*a more equitable and humane society*" (Macpherson, 1977: p. 94).

By the 1990s several theories of Direct democracy developed and, among others, *Deliberative Democracy.* Deliberative democrats argue that "*rational public deliberation among free and equal citizens about matters of common concern*" (Hilmer, 2010: p.51) is the essence of democratic legitimacy (for a more comprehensive discussion see Dryzek and List, 2003 and Hendriks et al., 2007). Accordingly, a deliberative process assumes (Michels, 2011):

- *Equality* of citizens who have equal voice and equal opportunity to persuade others.
- *Inclusion of different interests*, even those of minorities.
- *Mutual respect.*

However, according to Mutz (2006), critics of deliberative democracy argued that it may actually discourage Political Participation for several reasons. First, some people may be unwilling to publicly take a stand that can be opposed by friends and associates. Second, it is utopistic to find a place where all citizens can gather to deliberate. Third, not all people have the skills needed for deliberating. However, if we think of modern technology and especially the Internet, the reluctance to stand publicly might be overcome by the possibility of anonymity or pseudo-identity that this new mean of communication offers (Collins and Butler, 2003). Furthermore, public debate and reciprocal reason giving may be practically implemented through the creation of web pages, blogs, or networks groups on Social Media virtually at no cost and for everyone. Lastly, inclusion in social networks per se (even the digital ones) encourages the development of the skills needed for deliberation and reciprocal reason-giving.

This last point is particularly relevant to the theory of *Social Capital* (Putnam, 2000), that claims that citizens' participation encourages *civic skills* and *Virtues* through the inclusion in social networks and voluntary associations. In Putnam's (2000) view, those two forms of involvement are a sort of school for democracy, since through them people may learn how to speak publicly and debate on issues, allowing for their voice to be heard. Thus, citizens learn civic skills and become familiar with what Putnam (2000) considers the three most important civic virtues:

1. *Participation in public life*.
2. *Trustworthiness*.
3. *Reciprocity* (giving and taking).

Hence, Social Capital is closely related to the theory of Civic Virtue (Skoric et al., 2009: p. 416) and is in line with the ethical stand taken in this thesis (Section 3.1). However, as mentioned above, Social Capital Theory argues that civic virtue is most powerful when embedded in a dense network of reciprocal social relations. Those social relations help people develop civic skills, which in turn help them to actively participate in politics through norms of trust and reciprocity embedded in long-term relationships established in social networks. Therefore, Social Capital Theory emphasises some salient aspects of participation which contribute to a better democracy and that are common to the deliberative form of democracy (

Table 3.2) and it also appeals to Political Marketing and its *Comprehensive* and *Holistic* perspectives (see Chapter 2).

Indeed, trust and reciprocity are at the basis of Relationship Marketing but also of the S-D logic which, as argued in Chapter 2, should inform Political Marketing theory and practices. Specifically, Social Capital could be relevant to the S-D logic which emphasises the co-creation of value and encourages dialogue. Indeed, from a political perspective, the co-creation of value might occur if citizens actively participate in politics through debates and deliberative actions. However, from a Social Capital perspective, people may learn to debate and to deliberate through the inclusion in social networks and voluntary association (Putnam, 2000), that is through participation in public life. Participation will help citizens to co-create political offering (policies) which may benefit

society at large. This last point, benefit to society at large, is in line with the definition of Political Marketing provided in this study. Furthermore, given the previous premises that Political Marketing should engage with Virtue Ethics and Communitarianism, which are grounded in the concept of Civic Virtue, Social Capital seems the perfect framework for merging these worlds. Indeed, Social Capital is closely related to Civic Virtue (Putnam, 2000) and it appears to be closely related to Communitarianism. In particular, reciprocity and trust (two elements of Social Capital) will be considered in this research as internalised norms of individuals which may define them as virtuous. Hence, because of its affinity with Virtue Ethics, Theories of Democracy and the S-D logic, the application of Social Capital in studies of Political Marketing could help to partially overcome ethical criticisms of political scientists who regard marketing as a means though which politics "*will be transformed from what should be a quest for a common vision of the just noble and good*" (Ormorod et al., 2013: p. 75) into the private self-interest pursuit of consumerism.

Table 3.2. Participation in democratic theories and Social Capital.

MODEL	YEARS	PARTICIPATION APPROACH	FOCUS OF PARTICIPATION	SALIENT ASPECTS
Liberal Representative (Dahl, 1956; Schumpeter 1952)	1950s	Narrow (voting, membership)	Methods (election)	• Election as only mean to influence politics
Participatory Democracy (Pateman, 1970; Barber, 1984; Macpherson, 1977)	1970s	Wide (need for representation)	Sectors (workplace, household, politics, etc.)	• Influence decision making • Develop Civic skills • Legitimacy
Deliberative Democracy (Boheman, 1996; Habermas, 1996; Mutz, 2006)	1990s	Wide	Modes (deliberative polling, deliberative forums, Citizens' juries, etc.)	• Inclusion • Influence decision making • Deliberation • Legitimacy
Social Capital Theory (Bourdieu, 1980; Nan Lin, 2008; Putnam, 2000;	2000	Wide	Modes, Sectors, Methods	• Inclusion • Develop Civic skills • Develop Civic Virtue • Influence decision making

inclusion: citizens' participations contributes to the inclusion of singular individuals in the policy process, allowing their voices to be heard.

influence decision making: possibility to effectively influence decision making.

civic skills: debating in public and running meetings.

Civic virtues public participation, trustworthiness, reciprocity, feeling a public citizen, feeling responsible for decision-making.

deliberation: rational decision based on public reasoning and assessment.

legitimacy: increasing legitimacy of decisions and subsequent policies.

Source: see references in table.

3.3. POLITICAL PARTICIPATION CONCEPTUALISATION

Providing an exhaustive definition of Political Participation is not an easy task especially in the contemporary research context where academics have started to consider alternative participatory activities to justify the constantly decreasing levels of electoral turnout in western democracies (Dalton, 2006; Held, 2006; O'Toole et al., 2003; Norris, 2002; Putnam, 2000). Indeed, Political Participation has been associated with so many activities that Van Deth (2014) have coined the expression "*endless expansion*" (p. 349).

Therefore, providing an exhaustive definition of Political Participation is quite a difficult task and an inadequate conceptualisation could lead to misleading results in empirical research. As Hay (2007) remarked, "*those with the most restrictive and conventional conceptions of Political Participation identify a strong and consistent pattern of declining Political Participation and engagement over time, whilst those with a more inclusive conception discern instead a change in the mode of Political Participation*" (p. 23).

Although this study acknowledges such influencing effect of a broadened and too inclusive definition of Political Participation on the output of the research, in this thesis a wider conceptualisation of Political Participation is adopted, including both conventional and non-conventional forms, offline and online, of political actions. Reasons for this choice are provided in the next Sections.

3.3.1. DEFINING CRITERIA OF POLITICAL PARTICIPATION

Political participation has been defined in many ways over the years. Drawing on decades of research in the field and on several overviews and of the literature (see Brady, 1998; Conge, 1988; Ekman and Amna, 2012; Fox, 2014; Van Deth, 2001, 2014), it is possible to identify a series of criteria around which the concept of Political Participation has been built:

1. Action Vs No Action.
2. Active Vs Passive behaviour.
3. Voluntary Vs Forced activity.

4. Individual Vs Group activities.
5. Amateur Vs Professional behaviour.
6. Political Vs Civic sphere.
7. Conventional Vs Non-conventional participation.
8. Legal Vs Illegal activities.
9. Intent Vs Influence.
10. Online Vs Offline.

The above criteria contributed to the conceptualisation of Political Participation employed in this study, as illustrated in Figure 3.2 and explained in the following paragraphs.

Figure 3.2. Political Participation Conceptualisation Criteria.

Source: created by author.

In particular, following most of the extant definitions of Political Participation (e.g., Almond and Verba, 1963; Barrett and Brunton-Smith 2014; Norris 2002; Parry et al., 1992; Pattie et al., 2004; Van Deth 2014; Whiteley, 2011) this research acknowledges that participation must involve actions (**Criterion 1**). Nonetheless, although some activities like "boycotting" certain products or "not voting" cannot be considered as instances of actions, they are sometimes regarded by people as "*highly political acts*" (Hay, 2007: p. 26). Therefore, abstention from carrying out specific activities like voting is considered a form of Political Participation when it represents the intent, and has the effect of, influencing the civic and political sphere (Ekman and Amna, 2012). Rather, passive behaviour (**Criterion 2**) like holding certain values and attitudes or watching political TV programs is not considered participation because those activities do not affect directly political or civic outcomes (Van Deth 2014; Verba et al., 1995), but are forms of "political engagement" (Barret and Brunton-Smith, 2014). According to Fox (2014), Pettie et al. (2004), Van Deth (2014) and Verba et al. (1995) Political Participation must be purposeful and "voluntary" (**Criterion 3**). Thus, any action forced by law, rules or threats will not be taken into consideration. This choice is in line with the theory of Virtue Ethics which underpin this research framework (Section 3.1.1). In fact, since virtue is a matter of character or of the inclination and choice to habitually act in a specific manner, a virtuous behaviour implies the voluntary aspect of the action.

Notably, the first three criteria explain the first part of the definition of Political Participation as: "*voluntary and purposeful activities*".

Following the most traditional definitions of Political Participation, voluntary and purposeful activities can be undertaken by the single individual (Burretand Brunton-Smith, 2014) or collectively (**Criterion 4**) as in the tradition of authors working in the field of Civil Society and Social Capital (Macedo et al., 2005; Putnam, 2000; Verba et al., 1995). Also, almost all the definitions of Political Participation refer to "citizens" (**Criterion 5**), when discussing either single or collective behaviour (Almond and Verba, 1963; Barber, 1984; Callahan 2007; Michels 2012; Stoker, 2006; Van Deth, 2014). This is to differentiate Political Participation from the professional and paid activities of politicians, civil servant and public officers which do not have the characteristics of voluntary activities. Furthermore, the conceptual area of Political Participation will not be restricted only to "*government, politics and the state*" (Van Deth, 2014: p. 352), but rather it will encompass also civic forms of participation (**Criterion 6**) according to the

definition of Norris (2002), who claimed that "*organised activities [...] to impact civil society or which attempt to alter systematic patterns of social behaviours*" can be considered as forms of Political Participation. Several reasons lead to this choice. First, boundaries between civic and political engagement are not clearly delineated in the literature (Boulianne, 2009) because "*politics and civil society are interdependent*" (Macedo et al., 2005: p.6) and it is not clear where the boundary between the two lies (Martin, 2012). For this reason, many studies involve an approach where "*any organised action, or social behaviour or any activity aimed at change or influencing collective life*" (Van Deth, 2014: p. 352) are embedded in the definition of Political Participation. This thesis follows this tradition.

Second, it has been argued that there is a difference between the subject to be targeted and the aim of political actions (Parry et al, 1992). In fact, even if the target of Political Participation could be considered "*always the government*" (Parry et al, 1992: p. 7) or "*generally the state*" (Pattie et al. 2004: p. 78), political activities do not need necessarily to be aimed at the government, rather citizens may interact with other institutions to influence the governmental output, such as lobbies, interest groups or even other political institutions like the European Union. Therefore, actions of Political Participation cannot be restricted to government, rather they should be expanded to society at large.

According to the above reasoning concerning criteria 4, 5 and 6, Political Participation includes purposeful and voluntary activities "*individually or collectively carried out by citizens which target and affect the political and civic spheres"*.

Also, following Dalton (2008); Dalton et al. (2010), Ekman and Amna (2012), Marsh and Kaase (1979) Norris (2002), Parry et al. (1992) and Van Deth, (2014) this thesis includes in the definition of Political Participation both conventional and unconventional activities (**Criterion 7**). The former relates to the classic institutionalised modes of participation like voting, contacting politicians, working for a party and all the activities related to the electoral process (Rucht, 2007). The latter are defined as any "episodic, public" (Tarrow and Tilly, 2007: p 438) non-institutionalised political action (Dalton, 2008) like boycotting, marching, protesting, striking and occupying buildings even when those actions are directed towards "*non-governmental institutions [...] but in the attempt to influence political outcomes*" (Teorell et al., 2007: p. 336). Such non-institutionalised set of activities can be:

1. Legal (e.g., signing petitions or participating in lawful demonstrations).
2. Illegal, which can further be categorised as:
    a) Violent (e.g., set building or things on fire, shooting);
    b) Non-violent (e.g., unofficial strike, peaceful occupation of building).

Following a long tradition in research, this study includes in the conceptualisation of Political Participation both legal and illegal activities (**Criterion 8**) (Almond and Verba, 1963; Ekman and Amna 2012; Huntington and Nelson, 1976; Norris, 2002; Parry et al., 1992; Pattie et al., 2004; Van Deth 2014; Verba et al., 1995). To understand why, it is helpful to refer to the genesis of democracy and particularly to the teleological and praxialist arguments.

Focusing on the teleological argument means to understand what the ultimate goal of a specific behaviour is (from the Greek word "*telos*" which means ultimate end or goal). In political terms, this means to understand whether participants are trying to influence (**Criterion 9**) through their actions the political and civic sphere. Any behaviour aiming at that outcome (regardless of how it has been achieved), can be considered Political Participation. Such goal-oriented approach in defining Political Participation is really common in the literature (among the others, Almond and Verba, 1963: p. 117; Huntington and Nelson, 1976: p. 3; Norris, 2002; Verba et al., 1995: p. 38).

Alternatively, some researchers (Diemer, 2012; Munroe, 2002; Riley et al., 2010) capitalise on the lawful nature of the praxis (from the Greek word "*praxis*" which means accepted practice or custom) through which the political intent is manifested. However, when the ultimate goal of a political action is the common good of society, the lawfulness of the praxis is usually ignored as in the ancient Greek tradition. Indeed, following Gagarin and Fantham's (2010) discussion about ancient democracy in Greece, it seems that after the oligarchic revolution of 411 B.C. Athenians approved a decree which stated that the killer of any over-thrower of the democracy could not be held liable for any penalty. The underlying telos was that of protecting democracy (a public concern) from tyrannical power and to achieve that telos any praxis, even murder, was considered an acceptable form of action. Accordingly, it is possible to qualify as acceptable praxis any actions that serve a specific political telos on issues of public concern for the common

good of society. Therefore, the telos above the praxis. Accordingly, the definition of Political Participation should include both forms of praxis: legal and illegal. After all, this view has been widely embraced in academic practice because it has been recognised that societies are constantly changing and evolving in both technological and sociological terms and such changes have allowed reconsidering the legal, the philosophical and the orthodox boundaries within which studying political actions. Especially technological changes like the development and diffusion of the Internet have significantly affected the political behaviour of citizens (Dalton, 2009) and have allowed new forms of Political Participation. Indeed, Van Laer and Van Aelst (2010) have identified a wide range of participatory acts which would be not available without the Internet. In particular, SNSs have affected the way in which people gather and share political information, with almost no regard for geographical boundaries and time constraints (Dalton, 2009). Furthermore, it has been demonstrated how the Internet could serve as a mobilising mean, like for instance when protesters started a campaign against tuition fee changes in England in 2010 (Teocharis, 2012) or when Obama fostered people to volunteer for its electoral campaign (Bakker and De Vreese, 2011). Therefore, there is general agreement that the Internet affects Political Participation and how people are targeting state and government, including actions less reliant upon traditional political institutions (O'Neill, 2010) and aimed at different parts of society. Arguably, this upholds a broadened definition of Political Participation, which includes all those activities performed by citizens either offline or online, with the aim to affect civic and political realms (**Criterion 10**). Holding on to traditional definitions of Political Participation anchored exclusively to the offline political sphere limits the understanding of societies that have experienced the aforementioned changes: "*If our definitions do not follow the structural trends occurring in reality, in the end we will simply be left out, using outdated categories and concepts*" (Hooghe, 2014: p. 341).

Moreover, political actions must not be led by the intrinsic and/or the explicit motivation (intention) of individuals to affect political outcomes. Indeed, as Hooghe (2014) claims: "*Participants can have multiple motivations*" (p.339), but "*it does not really matter what the motivation is*" (p.340), as long as the final result of the action is that of affecting in some ways the political context. Indeed, accepting "political intentions" as fundamental element of the definition would imply that activities carried out purely for personal and private reasons or for reasons of emotional support would not

be considered as acts of Political Participation. Still, they will probably affect the political outcome. Moreover, it is difficult to practically determine what the intention of people are when conducting empirical research. Different intentions could be present, and a survey is possibly not the most suitable research instrument to uncover all those intentions or to understand whether the political one is dominant among the others.

According to the above discussion, criteria 7, 8, 9 and 10 finalise the definition of Political Participation employed in this study as:

"*the set of all voluntary and purposeful activities individually or collectively carried out by citizens which target and affect the political and civic spheres through both legal or illegal praxis, online or offline*".

Notably, conventional and unconventional activities are introduced in the definition of Political Participation by the word "***all***".

Based on the above definition of Political Participation, the possible items to include in the operationalisation of the construct have been identified and reported in Appendix B. This is meant to facilitate the operationalisation of Political Participation and the identification of suitable measures and scales for this study.

3.4. PARTICIPATION IN MEDIA STUDIES: THE INCONSISTENT INTERNET EFFECT

Direct democracy models of participation establish a strong connection between citizens' Political Participation and media participation considering the last as potential democratising agents, since they may enhance citizens' involvement in the media sphere contributing to the creation of the "informed citizens", that is a fundamental element for a healthy democracy (Curran, 2011; Held, 2006). Indeed, Jenkins (2006: p. 252) suggests that the Internet could be more democratic with respect to other media in four different dimensions:

1. *In its contest*, covering the kind of information that individuals need to implement their civic and political choices.
2. *In its effects*, mobilising sectors of the population which were previously inactive or less engaged with public issues.

3. *In its values*, enhancing public debate and therefore fostering a sense of belonging to a community in line with theories of Participatory Democracy and Social Capital.
4. *In its process*, enlarging access to content production and distribution.

However, some authors (e.g., Carpentier and Dahlgren, 2014; Ekstrom et al., 2011) argue that there is a long history of media and participation which shows that technology on its own, although able to foster participation and to enhance exposure to news and public issues, does not necessarily lead to a change in social or democratic processes (Couldry, 2010; Curran et al., 2012). However, Harrison and Barthel (2009) retort that even if history reminds us that there has been always a sort of direct media participation of society, what is crucial with the Internet is that it "*enables vastly more users to experiment with a wider and seemingly more varied range of collaborative, creative activities*" (p. 174). Moreover, thanks to specific innovations in other fields (smart phones, laptops, etc.) the Internet is potentially available at any time and it is placed in almost every context of our everyday life (Press and Williams, 2010), therefore incorporating an intrinsic interactive potential which goes beyond the limits of time and space of the 'old' media (Jenkins, 2006).

Nevertheless, there is no agreement among academics on whether the Internet may improve, or not, Political Participation. Indeed, three theoretical stands exists in the extant literature and each of them is supported by empirical evidence.

A first school of thought, regarded as the "Optimists", considers the Internet as a mobilising agent of citizens traditionally characterised by lower levels of political engagement and activity such as young people, individuals with lower socio-economic status or isolated. This is because the Internet offers additional and convenient pathways to participation facilitated by the low cost of interaction with political and civic institutions and the ease of access to relevant political information (Coleman and Blumler, 2009; Christensen and Bengtsson, 2011; Delli Carpini, 2000; Gibson, et al., 2005; Hamilton and Tolbert, 2012; Johnson and Kaye, 2003; Kavanaugh, et al., 2008; Kim and Kim, 2007; Krueger, 2002; Norris, 2003; Rojas and Puig-i-Abril, 2009; Tolbert and McNeal, 2003; Ward, et al., 2003). However, the majority of studies within this tradition found that the strongest mobilising effect of the Internet was associated mainly, and sometimes exclusively, with voting (Gibson and McAllister, 2013; Bimber, 1999; 2001;

Johnson and Kaye, 2003; Norris, 2003). Moreover, although some studies found positive effects, authors highlighted that such effects were very small (e.g., Bimber, 2003; Jennings and Zeitner, 2003) and concluded that the Internet "*has not changed levels of political engagement in any substantial way*'' (Bimber, 2003, p. 224).

A second stream of the literature, the "*Pessimists*", considers the Internet as a medium which can contribute to declining levels of political and civic participation by inducing citizens to engage in online recreational activities, drifting them away from more meaningful forms of civic and Political Participation (e.g., Nisbet and Scheufele, 2004; Scheufele and Nisbet, 2002; Zhang and Chia, 2006). This perspective is rooted in Putnam's (2000) work on Social Capital (Chapter 4). Putnam (2000) provided empirical evidence of the decrease of Social Capital in the American society, arguing that such decline was due to the concomitant growth of the use of TV for entertainment purposes, which displaced time that could be otherwise invested in more meaningful civic or political activities. Several scholars have applied this "Time Displacement" logic to the Internet, suggesting that it generated passivity by absorbing energies that citizens would, otherwise, invest in more meaningful civic and political activities (Diani, 2001; Kraut, et al., 1998; Lusoli and Ward, 2004; Nie and Erbring, 2002; Rash, 1997; Turkle, 1996). Empirical research testing the time displacement logic found either no significant effects of the Internet on Political Participation (Zhang and Chia, 2006; Tolbert and McNeal, 2003) or a negative relationship (e.g., Gibson et al., 2000; Kwak et al., 2004; Moy et al., 2005; Shah et al., 2001a; Shah et al., 2001b).

Finally, the "*Normalisers*" claim that the Internet has a supplementary effect on Political Participation, rather than a mobilising one, as it reinforces participatory trends of those citizens who are already interested and active in politics (Calenda and Meijer, 2009; Calenda and Mosca, 2007; Dutta-Bergman and Chung, 2005; Kenski and Stroud, 2006; Kim, 2006; Krueger, 2006; Moy, et al., 2005; Norris, 2001, 2002; Polat, 2005; Wang, 2007). Online political activities are perceived in this sense as an extension of offline ones (Calenda and Mosca, 2007; Tedesco, 2004). Hence, the Internet has a "Reinforcement" effect which is perceived by some scholars in a negative light. Indeed, by strengthening existing patterns of political engagement and participation, the Internet fortifies established power structures and widens the knowledge gap between politically active and less active citizens (Bimber, 2001, 2003; Bonfadelli, 2002; Brundidge and

Rice, 2009; Delli Carpini and Keeter, 1993; Lindner and Riehm, 2011; Schlozman, et al., 2010; Tedesco, 2004; Weber, et al., 2003).

The above discussion highlights that "*empirical research has not revealed any clear pattern*" (Vissers et al., 2012: p. 153) of the effects of the use of the Internet on Political Participation. This observation also applies to SNSs studies, which are examined in the next Section.

3.4.1. DEFINING SNSs AND THE INCONSISTENT EFFECT ON POLITICAL PARTICIPATION

Kaplan and Haenlein (2010) define SNSs as "*Internet-based applications that build on the ideological and technological foundations of the Web 2.0, and that allow the creation and exchange of user-generated content*" (p. 62). As such, it is possible to include in this definition SNSs like Facebook and MySpace, media-sharing sites like YouTube and Flickr, micro-blogging platforms such as Twitter and Weibo, and blogs. Indeed, all those plarforms allow for the sharing of user-generated content.

The arrival of the SNSs "*has changed the nature of everyday online interactions among citizens enabling new forms of personalized public engagement that no longer require significant organizational resources nor common identity and ideology*" (Skoric et al., 2016: p. 1819). Indeed, empirical evidence shows that SNSs have facilitated the creation, organisation and implementation of online movements which migrated in the offline world, like "The Arab Spring" in 2011, the "Umbrella Revolution" in Hong Kong, the "Anti-Austerity" protests in Greece or the "Indignados" in Spain (Boulianne 2015; Skoricand Zhu, 2016; Valenzuela et al., 2017). This evidence has spurred researchers to suggest that SNSs have changed the ecology of the Internet and that a new comprehensive assessment of the role of the Internet in civic and political life is needed (Scoric and Zhu, 2016). However, although SNSs may have changed the ecology of the Internet, they did not change the uncertainty of its effects on Political Participation. Indeed, similarly to Internet research, contrasting evidence has been produced in relation to the impact of SNSs on Political Participation.

A first stream of the literature supports the positive effect of SNSs on Political Participation. For instance, the pioneering study of Williams and Gulati (2007) found that the number of Facebook friends of political candidates at the 2006 U.S. midterm elections

was positively related to final vote shares and that SNSs could effectively affect offline political behaviour. Similarly, Kim and Geidner (2008) found that SNSs usage enhanced voting probability by increasing individual and collective rewards originating from it, such as Social Capital, civic duty and political efficacy. They also found that SNSs engaged younger voters who, usually, are rather disengaged from politics. These two studies identified a positive relationship between SNSs usage and voting but, by concentrating solely on this offline activity, they neglected the rest of the Political Participation spectrum (Section 3.3.2). However, other more comprehensive studies found similar results. For instance, Bode (2012) and Vitak (2012) found that Facebook use was a significant predictor of Online Political Participation. Also, the use of microblogs like Weido (Chan et al., 2012) and political blogs in general (Gil de Zuniga et al., 2009; Lewis, 2010) was found to be positively and significantly related to online political behaviour. Moreover, Offline Political Participation was also found to be significantly predicted by SNSs use (Bode, 2012; Park et al., 2009; Skoric and Poor, 2013). All these studies and many others (e.g., Bachman, et al., 2010; Holt et al., 2013; Towner, 2013 and Xenos, et al., 2014) provided evidence in support of the political mobilisation hypothesis of the SNSs.

In contrast with these findings, other authors found either limited (Baumgartner and Morris, 2010; Valenzuela et al., 2009), no (Effing et al., 2011) or negative (Ancu and Cozna, 2009; Fenton and Barassi, 2011; Theocharis and Lowe, 2016) effects of SNSs on Political Participation. In their study exploring the reasons why members of the public visited MySpace profiles of 2008 U.S. primary candidates, Ancu and Cozna (2009) determined that campaign involvement was negatively related to the use of MySpace for social interaction and was not related to the use of MySpace for information seeking and entertainment purposes. Fenton and Barassi (2011) contended that differences between individual and collective forms of participation must be considered when assessing the political potential of SNSs, as they tend to promote individualism and personal affairs, disconnecting individuals from the public terrain of common good and collective political endeavour. Furthermore, Theocharis and Lowe (2016) found that maintaining a Facebook account had negative consequences on offline and online forms of political and civic participation. Yet, other authors rejected the idea that SNSs negatively affect Political Participation, suggesting that these platforms have limited or no effects on Political Participation. Specifically, Baumgartner and Morris (2010) found that people who rely

on SNSs for news are not more likely to participate in politics by traditional means. Similarly, studying Facebook, Valenzuela, et al. (2009) stressed the limited effect of SNSs over youths' Political Participation and argued that these platforms are not likely to exert a mobilising effect on young, disengaged citizens. Effing et al. (2011) found that Social Media did not significantly influence voting behaviour during the 2010/2011 local elections in the Netherlands, although politicians with higher presence in social media gained relatively more votes in the 2010 national elections.

Finally, some studies found empirical evidence of the normalisation effect of the SNSs which can strengthen the engagement patterns of those people who are already involved and interested in politics (Mascheroni, 2012; Rainie and Smith, 2012). For instance, Carlisle and Patton (2013) found that "*individuals in general engaged in limited political activity via Facebook during the 2008 presidential campaign*" and that "*political interests play a significant role in determining whether an individual is more or less engaged in Facebook*" (p. 891). Hence, people who are more interested are those who are more likely to be engaged and politically active. This reinforcement effect exacerbates existing inequalities in real life that are translated and carried over into the online world creating a digital divide. Also, Vesnic-Alujevic (2012) established that those citizens already engaged in politics offline were also more likely to participate in political activities on Facebook. Similarly, Gustafsson (2012) found that the use of SNSs per se does not drive previously inactive people to Political Participation. Rather, only members of interest organizations view SNSs as valuable tools for participation, whereas respondents who are not members of such organisations, refrain from sharing political views with their friends. Finally, Vitak, et al. (2011) pinpointed the strong link between political interest, offline Political Participation and Facebook participation, suggesting that those who are already engaged in politics seek multiple outlets and modalities of expression for their political behaviours and that SNSs use alone do not act as a mobilising agent.

This literature review highlights the contrasting empirical findings in extant research regarding the effect of the Internet and SNSs on Political Participation (see Appendix C for a full list of the studies consulted). Scholars have adduced several reasons as justification for these inconsistent empirical findings which are discussed in the next Section.

3.4.2. REASONS BEHIND INCONSISTENT EMPIRICAL FINDINGS

The literature review on the effect of Internet Use and its different tools (SNSs, blogs, micro-blogs, etc.) on Political Participation has highlighted opposing and inconsistent findings in extant empirical studies. Scholars ascribe such differences in research outcomes to several reasons, such as: **(1)** the contextual setting of the study (Anduiza et al., 2012; Norris, 2001), **(2)** the purpose of using the SNSs (e.g., Bakker and de Vreese 2011; Bode, 2012; Boulianne, 2009; 2015; Dimitrova et al., 2014; Gil de Zuniga et al., 2012; Kenski and Stroud 2006; Quintelier and Visser's, 2008; Rojas and Puig-i-Abril, 2009; Tang and Lee, 2013; Vitak et al., 2011; Xenos et al., 2014), or **(3)** the methodological operationalisation of Political Participation and in particular the lack of distinction between online and offline forms of political actions (Boulianne, 2009; 2015). However, relevant to this work are the justifications related to the unique "technological affordance" of each SNS and its intensity of use. These are addressed in the next two Sections.

3.4.2.1. SNSs' TECHNOLOGICAL AFFORDANCE

Affordance is defined as "*the perceived and actual properties of the thing, primarily those fundamental properties that determine just how the thing could possibly be used*" (Norman, 1988, p. 9). As McGrenere and Ho (2000) explain, affordance identifies possible characteristics and limitations of the technology which in turn defines how it should and should not be used.

An extended stream of the Media Studies literature focuses on the affordances of SNSs. Treem and Leonardi (2012) suggested that SNSs afford high visibility of information, persistent, instantaneous and continuous editability of the content, as well as aggregation among users. Likewise, Boyd (2010) described SNSs affordances as persistency and replicability of contents that can be easily retrieved and have the potential to target a large audience. Moreover, SNSs afford the creation and maintenance of relationships with large social networks which would be almost impossible to establish and manage offline (Ellison et al., 2014).

Scholars have often ignored the different intrinsic characteristics of the specific SNS considered (e.g., Facebook, Twitter, MySpace, etc.) and have generalised the effect of a specific SNS to the entire category (Dimitrova, et al., 2014; Woo-Yoo and Gil de

Zuniga, 2014). Arguably, this could be at the basis of the inconsistent empirical findings discussed earlier. Woo-Yoo and Gil de Zuniga (2014) and Skoric et al. (2016) highlighted the value of a differential approach and observed that different SNSs attract different types of individuals with respect to their social-economic status. Facebook and blogs facilitate Political Participation of more knowledgeable people, whilst Twitter use has a stronger relationship with Political Participation only among the most educated respondents. Furthermore, while blogs and microblogs can positively affect Offline Political Participation (Gil de Zuniga et al., 2013), Facebook was found to have no impact (Gil de Zuniga et al., 2012; Valenzuela et al., 2009) or even a negative effect (Vitak et al., 2011). Arguably, such opposing findings could be attributed to the different characteristics and affordances of different types of SNSs which therefore can affect different types of Political Participation and may indeed provide confounding results if analysed in the aggregate (Valenzuela et al., 2017).

For instance, the specific affordances of Facebook and Twitter (the most used SNSs in the UK, www. yougov.co.uk, 2018) could be the reason for the inconsistent findings highlighted by the literature review. Their different affordances include:

1. Network structure.
2. Types of information provided.
3. Types of social ties created.
4. Communication patterns.
5. Users' anonymity.

Considering ***network structure***, Facebook is a symmetrical social media based on reciprocal approval that is, a user can connect to another only if there is the consensus and approval of both parties. As a result, Ellison et al. (2007) found that Facebook users have an online network that mostly mirrors the offline one as people tend to connect to those that they already know. Arguably, Facebook helps to maintain and nurture existing social ties rather than create new ones. On the other hand, Twitter allows more unidirectional connections, because reciprocal approval is not needed to follow and contact other users. Arguably, Twitter may facilitate the connection with people who are not know personally to the user, such as celebrities, politicians, news organisations, etc.

Ultimately, this may significantly enlarge the size of the social contacts within the Twitter network compared to Facebook.

With respect to the ***type of information provided***, the bigger and more heterogenous social network of Twitter provide the potential to expose users to greater and more heterogeneous type of political information. In contrast, Facebook users are exposed to like-minded individuals and to news with which users have already shown greater affinity. Indeed, Bucher (2012) found that Facebook's "*algorithm is based on the assumption that users are not equally connected to their friends. Some friends…count more than others…and…are those with whom a user interacts with on a frequent basis or on a more intimate level*" (p. 1168). Thus, the algorithm shows news and feeds of friends (or pages) that users interact most frequently with. Some scholars have expressed concerns that people who are exposed predominantly to like-minded information online may become more polarised as they are enclosed in an "echo chamber", where there is a limited and restricted view of political issues which does not foster political debate and therefore does not facilitate political engagement (Hayat et al., 2016; Himelboim et al., 2013). Hence, the type of information and news obtained on Facebook is rather homogenous and somehow limited in amount compared with Twitter, whose algorithm rewards immediacy and recurrence, rather than interaction and affinity (Valenzuela et al., 2017). Indeed, the algorithm of Twitter shows posts to its users mostly on a real-time basis and displays more content from the sources that tweet more often, such as news companies, political groups, and social organizations. Consequently, Twitter users are potentially exposed to more novel and timely information, provided also by sources with whom they have no strong relationship. Research has shown that the exposure to diverse opposing and heterogeneous news sources, even if accidental, is a predictor of Political Participation as it may improve deliberative democracy in many ways, such as enhancing mutual understanding, promoting political tolerance, generating political debates, critical reasoning and elaboration of news (Gil de Zuniga et al., 2012; Mutz, 2006; Valenzuela et al., 2009; Vitak et al., 2011). In addition, Golbeck et al. (2010) found that politicians ''*are primarily using Twitter to disperse information, particularly links to news articles about themselves (...) and to report about their daily activities*" (p. 1612). Arguably, the *amount of political information* is greater and more diverse on Twitter than on Facebook. As a result, Facebook could have weaker effects on people's political behaviours compared to Twitter.

Looking at the ***types of social ties*** there are several differences between Facebook and Twitter. Indeed, by strengthening and facilitating the maintenance of strong *relationships* (e.g., those with relatives and close friends), or what Putnam (2000) defines "strong ties", Facebook facilitates the creation and maintenance of Bonding Social Capital which is defined by high level of trust, reciprocity and emotional support created among like-minded individuals that can provide homogenous resources and information (see Chapter 4). In contrast, by allowing users to connect with people they do not know, Twitter facilitates the creation and maintenance of "weak ties", which generate Bridging Social Capital, characterised by weak emotional and affective support, while providing heterogeneity of information and resources (Putnam, 2000). Bonding Social Capital has been found to positively affect Offline Political Participation, meanwhile Bridging Social Capital seems to affect mostly Online Political Participation (Skoric et al., 2009; Zhong, 2014). Arguably, Facebook could be a better predictor than Twitter of Offline Political Participation, whilst Twitter could facilitate Online political activities better than Facebook.

The two SNSs show differences also in terms of ***communication affordance***. Indeed, Twitter communication among users is centred on brief messages no longer than 280 characters (140 until 2017), as opposed to Facebook, which allows users to upload lengthier and more elaborated posts. These different communication structures may also explain why the two SNSs may have different effects on Political Participation across platforms. Indeed, weak and strong ties will have the same amount of space in Twitter to develop their message and because they must be short, users mostly focus on the informational value of the posts. Rather, on Facebook, users are exposed to longer and more elaborated messages and people are more likely to read the messages posted by closer contacts, with whom they feel more emotionally connected (Kaun and Stiernstedt, 2014). As a result, Facebook is more focused on reciprocal social interaction compared with Twitter, which is more centred around information and opinions sharing (Huberman et al., 2009; Petrocchi et al., 2015). Hence, the former is better at satisfying the needs for belongingness, social connectedness, interaction and self-presentation (Nadkarni and Hofmann, 2012), while the latter is better at fulfilling informational needs (Petrocchi et al., 2015). Indeed, previous research has shown that these differences may explain why people tend to learn more about political issues in one network over another (Woo-Yoo and Gil de Zuniga, 2014). Moreover, an informed citizen is at the basis of Participatory

types of democracy (see Section 3.2) and it is a prerequisite for political engagement (Held, 2006). Therefore, Twitter may be a more suitable platform to increase levels of Political Participation.

Facebook and Twitter show differences also in terms of ***anonymity***. Indeed, Facebook enables users to create an account only if they provide some information about themselves, meanwhile Twitter allows its users to remain anonymous as they do not need to disclose themselves to express their opinions (Huberman et al, 2009; Woo-Yoo and Gil de Zuniga, 2014). Arguably, anonymity would encourage greater participation online because it resolves the social desirability bias, allowing people to publicly take a stand on political matters that can be opposed by friends and associates (Collins and Butler, 2003; Towne and Herbsleb, 2012). Furthermore, anonymity has been argued to increase information flow. Indeed, anonymous interactions may allow people to transcend their stereotypes. In addition to the suppression of certain sensory information provided by the Internet (voice, smell, facial expression, etc.) anonymity may allow individuals to overcome emotional reactions that would interfere with their relationships. This would allow avoiding any judgmental fear for the information posted, even when this is against the society principles (Resnick, 2002).

Arguably, all those differences in the specific affordances of Facebook and Twitter may allow for different levels and types of Political Participation (Online and Offline). Yet, very few studies have investigated and compared the nuanced influence that these different SNSs have over participatory behaviours. Those that have done so have often failed to differentiate between online and offline Political Participation, analysing them as one unique construct or just focusing on a specific dimension of it. Therefore, such studies either did not account for structural differences of the Political Participation construct or failed to carry out any differential comparisons of the SNSs effects on different forms of Political Participation.

Indeed, after searching on ProQuest, Google Scholar and Jstor database for studies addressing this issue a total of 17 studies were identified (for the full list and more details about the search process see Appendix D). Of these, only two studies (Halpern et al., 2017; Woo-Yoo and Gil de Zuniga, 2014) have compared the effects of different types of SNSs on Online and Offline Political Participation.

3.4.2.2. SNSs' INTENSITY OF USE

Many studies investigated how the intensity of use of SNSs may be related to Political participation. Theoretically, given that Facebook's affordances facilitate the recreational and entertainment use of the network (Bode, 2012), more time spent on it may lead to the dominance of entertainment content on one's newsfeed (Lu et al., 2018). In this case, following the time displacement logic discussed earlier, a high amount of time spent on Facebook can hardly contribute to political mobilisation. Indeed, Vitak, et al. (2011) found the intensity of Facebook use to decrease general Political Participation, in terms of both online and off-line activities. In contrast, Bakker and de Vreese (2011) stressed that the Internet offers digital possibilities to engage in political activities, thereby intensive use of the Internet does not necessarily lead to decreased Political Participation. Rather, researchers should differentiate between different uses of SNSs (recreational, political, getting news, etc.) and between online and offline forms of Political Participation as the outcomes could vary significantly when accounting for such differentiation.

Extant research mirrors both points of views and provides inconsistent results. For instance, Baumgartner and Morris (2010), found that time spent on social networking sites, measured in days per week, was significantly associated with online political expression. Similarly, a Pew Center survey indicated that Facebook users who used the online platform many times a day were more likely to participate in online political activities compared to those who did not (Hampton et al. 2011). Likewise, Skoric and Kwan (2011), Skoric and Poor (2013) Skoric et al. (2016), Vitak et al. (2011) and Yung and Leung (2014) reported a positive link between Political Participation and the generic intensity of Facebook use. Arguably, such positive outcomes are understandable as political engagement on SNSs naturally requires users to spend time on them. However, the effect size of such relationships in those studies has always been small and mostly affected by other factors, such as the specific types of social media use (Chan et al., 2012; Mou et al., 2013), respondents' political interest and efficacy and the "contagion effect" of SNSs, which work by engaging people in politics by imitation simply because users see their friends performing political activities on the SNSs (Vitak, 2011).

On the other hand, Chunly (2019) showed that intensity of Facebook use was not related to online political behaviour. This finding is supported by several other studies that were unable to establish a link between time spent on social media and online

Political Participation (Dimitrova and Bystrom 2013; Gil de Zuniga et al., 2012; Zhang et al. 2010). Other studies found a negative association between intensity of SNSs usage and online Political Participation (Yang and DeHart 2016). One possible reason is that some heavy SNSs users were so intensely absorbed by the social networking and entertaining aspects of this digital medium that they found online politics uninteresting or unworthy of pursuing (Yang and DeHart, 2016).

With respect to offline Political Participation, previous studies showed mixed and inconsistent findings too. For instance, while Bode (2012) found that time spent using Facebook is negatively related to voting, Skoric and Kwan (2011) found a positive relationship, but Chakraborty (2016) and Quintelier and Visser (2008) did not find any significant effects. Using the 2010 Pew Internet and American Life Project "Social Side of the Internet" survey, Zhang and Gearhart (2015) found that that general use of the Internet and SNSs increased online participation but not offline participation. Similar findings were found by Baumgartner and Morris (2010) and Towner (2013).

While the effects of the intensity of use of Facebook on Online and Offline Political Participation have been addressed, very few studies have investigated the effect of the intensity of use of Twitter. Indeed, a search on ProQuest, Google Scholar and Jstor yielded only 3 studies relevant to this thesis (see Appendix E). Those studies found a positive and significant relationship between time spent on Twitter and online (Hopke et al., 2016; Varnali and Gorgulo, 2015; Yang and DeHart, 2016) and offline (Hopke et al., 2016) Political Participation.

Given the logical link between SNSs' affordances and the time spent on them (Lu et al., 2018) and their effect on Political Participation, and that academic studies focusing solely on technology affordances or intensity of use of SNSs yielded contrasting empirical evidence, it seems logical to argue that an interaction effect between technology affordances and intensity of use could explain earlier opposing findings. Indeed, Field (2013) claims that interaction effects could be at the basis of the mixed evidence provided in the literature review about the effect of the same antecedent (SNSs use) on the same outcome (Political Participation). Yet, to the best of our knowledge, no study has investigated such interaction effect.

3.5. SUMMARISING: IDENTIFIED GAPS

Overall, the literature review on the relationship between SNSs use and Political Participation has highlighted the inconsistency of empirical findings. Several authors have argued that such contrasting findings can be related to the context in which the research is carried out (Anduiza et al., 2012; Norris, 2001). Others ascribe such differences to methodological measurement issues and particularly to the lack of differentiation between online and offline Political Participation (Boulianne, 2009; 2015; Lilleker and Koc-Michalska, 2017; Visser and Stolle, 2014). On the other hand, Dimitrova, et al. (2014), Woo-Yoo and Gil de Zuniga (2014), Skoric and Zhu (2016), Valenzuela et al. (2017) highlighted the value of "Technology Affordance" to explain the inconsistent empirical findings and observed that different SNSs may facilitate different types of participation in relation to the intrinsic characteristics and functions of the SNSs considered. Other authors blamed the lack of consideration of the intensity of use of SNSs (Valenzuela et al., 2009).

For this reason, several scholars have called for a focus on technology affordance (Boulianne, 2015; 2019; Kim and Lee, 2016; Skoric and Zhu, 2016) and intensity of use of SNSs (Valenzuela et al., 2009) when studying the effect of social media on Political Participation, also accounting for the heterogeneity of its online and offline dimensions (Boulianne, 2009; 2015; 2019). Indeed, a meta-analysis conducted by Boulianne (2019) found that extant research tends to measure social media use without identifying the specific platform. When studies have done so, the focus has mostly been on Facebook, investigating the effect of intensity of use of Facebook on Political Participation. Yet, the same is not true for Twitter. Boulianne's (2019) findings mirror the findings of the literature review reported in this Chapter. Most importantly, even the few studies that focused on technology affordance and carried out cross-platforms investigation or those which focused on intensity of use provided inconsistent findings of the effect of SNSs use on online and offline Political Participation.

Surprisingly, and to best of our knowledge, no study has investigated whether an interaction effect exists between the technology affordance and the intensity of use of the SNSs which could explain the mixed findings reported so far. Indeed, given that Facebook's affordances facilitate recreational, entertainment and social interaction activities, contrary to Twitter which facilitate information, opinions and news sharing and

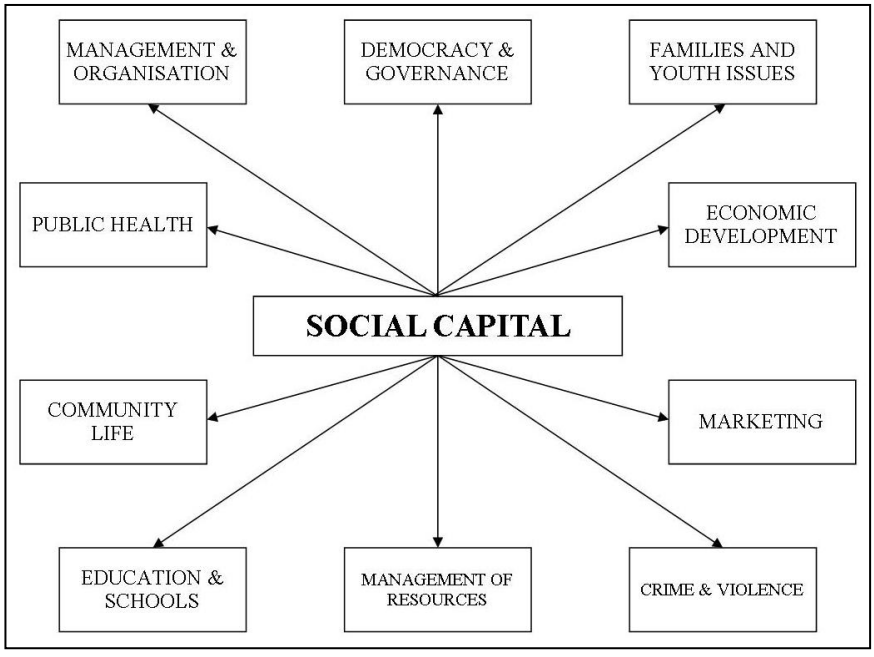
diffusion (Huberman et al., 2009; Nadkarni and Hoffman, 2012; Petrocchi et al., 2015; Valenzuela et al., 2017), the amount of time spent by users on them could affect citizens' levels of Political Participation differently. Memon et al. (2019) claim that interaction effects could be at the basis of the mixed evidence provided in the literature review about the effect of the same antecedent (SNSs use) on the same outcome (Political Participation).

4. LITERATURE REVIEW ON SOCIAL CAPITAL

As highlighted in the previous Chapters, the concept of Social Capital can be employed for merging different disciplines, under one unique common interest, that is mobilising people for increasing civic and Political Participation and, thus, improve democracy and social well-being, at "a benefit for society at large". Such common interest is in line with the definition of Political Marketing provided in Chapter 2 and it emphasises the multidisciplinary nature of the concept of Social Capital and its relevance to Politics (Fukuyama,1995; Ostrom, 2000; Putnam, 1993, 1995, 2000; Skoric et al., 2009; Valenzuela et al., 2009), Economics (Page et al., 2005; Hayami, 2009), Marketing (Moore et al., 2005), Management and Organisational studies (Maurer et al., 2011), Sociology (Putnam, 2000), Ethics (Ayios et al., 2014) and many other disciplines (Kwon and Adler, 2014) (see Figure 4.1).

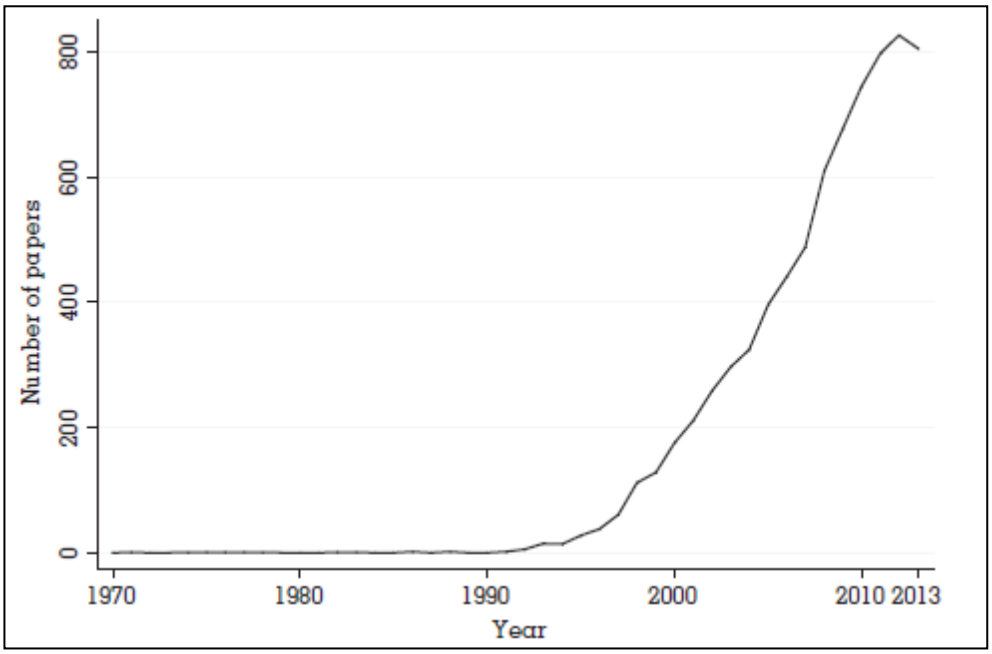
Such multidisciplinary use is due to the fact that Social Capital promises to explain outcomes based on social structures and interactions within social networks common to different contexts to the point that its recurrence "*in the title, abstract and key words of journal articles has multiplied rapidly over the past several decades*" (Kwon and Adler, 2014: p. 412), (Figure 4.2).

Figure 4.1. Social capital application fields.



Source: Created by author.

Figure 4.2. Research trends in Social Capital.



Source: Kwon and Adler (2014): p. 413.

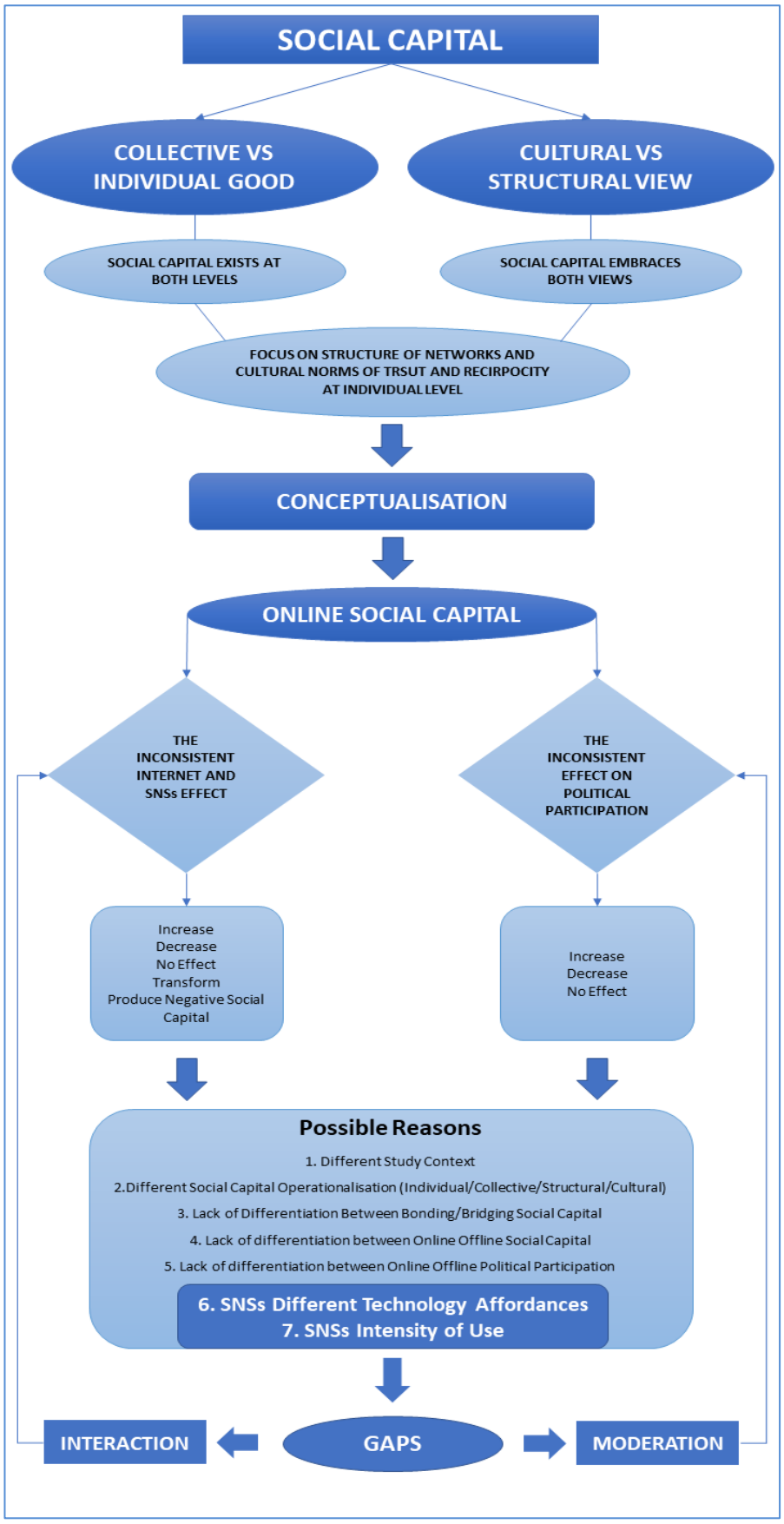
However, such variety of uses leads to a wide range of conceptualisations, which implies that there is not a single universal definition of Social Capital (Adler and Kwon, 2002; Kwon and Adler, 2014; Woolcock, 2010). Rather, its conceptualisation varies and depends on the discipline, the contexts and types of investigation (Robinson, 2002). Indeed, Kwon and Adler (2014) argued that a cross-disciplinary universal definition is not required in so far as a clear conceptualisation and operationalisation of Social Capital are provided in each specific study.

This research follows this approach and tries to define Social Capital based on factors relevant to the current study, such as the individual or collective level of analysis (Section 4.1), the cultural and structural perspective of investigation (Section 4.2), the strong or weak nature of the ties in social networks (Section 4.3), and its offline and online nature (Section 4.4). Then, an account of the existing literature regarding Social Capital and its effect on Political Participation and on how the Internet is involved in this relation is provided (Section 4.5). Finally, gaps in the extant literature are discussed (Section 4.6). Figure 4.3 provides a conceptual map of this Chapter.

To accomplish the above, the following literature review refers to several seminal works and reviews of Social Capital like those of Adler and Kwon (2002), Borgatti

(2003), Bourdieu (1986), Burt (1992), Coleman (1988, 1990), Fulkerson and Thompson (2008), Kwon and Adler (2014), Lin (2001, 2002), Putnam (1993, 1995, 2000), Williams (2006) and Woolcock (2010).

Figure 4.3. Conceptual Map Chapter 4.



4.1. SOCIAL CAPITAL LEVEL OF ANALYSIS: COLLECTIVE VERSUS INDIVIDUAL PERSPECTIVE

A first important debate over the concept of Social Capital is built around the level of its analysis, that is whether it must be considered as a collective/public good or a private/individual asset.

The *collective perspective* links Social Capital to the social relations embedded in social structures and communities (Knack and Keefer, 1995; Hanifan, 1913; Putnam, 2000; Skocpol, 1995). Such Communitarian approach stems from the work of Tocqueville (1835; cited in Putnam, 2000) who linked high levels of associational life with a well-functioning democracy. Putnam (2000) reinforced such position, arguing that social interactions within networks enrich individuals with democratic and cooperative values based on norms of generalised trust, reciprocity and tolerance. If a person develops such qualities and attitudes, he/she will be tolerant and will trust others. This approach clearly places the attitude of individuals (trust, reciprocity and tolerance) at the centre of the concept of Social Capital and it is based on a bottom-up mechanism, which means that those norms of reciprocity, trust and cooperation among people create good democracies and push economic and institutional development of a country benefiting society at large. Therefore, Social Capital is seen as property of a collective.

The *individual perspective* looks at Social Capital as a resource that benefits individuals through the relationships they establish among themselves. This approach stems from the rational utilitarian perspective of neo-structuralist sociologists like Bourdieu (1986), Coleman (1988, 1990), Flap (2004) and Lin (1999, 2001) for whom human beings are self-interested agents who seek to maximise utility and profit through access and use of scare resources which can help in achieving a better life condition. Accordingly, acquiring resources is the leading desire of the human behaviour.

Bourdieu (1986) considered Social Capital as an individual resource close to the symbolic, cultural, economic and political capitals and defined it as "*the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition*" (p. 248), "*made up of social obligations ('connections'), which is convertible, in certain*

conditions, into economic capital" (p. 243). The position of an individual in a hierarchical society is determined by the amount of economic, cultural and Social Capital he/she possesses. Then, the individuals constitute groups with the aim of gaining more resources or converting the capital they already own into different types of capital (mostly economic), to climb the different socio-economic stratifications of society. Just the individuals engaged in social relations benefit from the forms of capital brought in by others. Later, Flap (2004) and Lin (1999) further elaborated and simplified Bourdieu's conceptualisation of Social Capital as the accessible resources embedded in social networks, which an individual can directly or indirectly have access to. For them, such resources are information, social credentials, influence, and reinforcements which represent all individual assets. While Bourdieu (1986) considers the use of Social Capital for instrumental purposes, like a rise in economic, social or political position, Flap (2004) and Lin (2001) are more interested in the expressive purposes, that is, the use of resources for emotional support. However, regardless of the purpose for using Social Capital, the individual perspective considers it as an investment in social relations which allows individual to access and use resources embedded in social networks (Burt, 1992; Lin, 2001). The focus is on networks, resources embedded in such network and on whom people know (Halpern, 2005).

However, it seems that what is true for individuals also holds for groups. For instance, people with more individual Social Capital are more civically and politically engaged (Putnam, 2000). Similarly, it seems that societies with higher level of Social Capital show higher levels of civic and Political Participation (Putnam, 1993, 1995, 2000; Woolcook and Narayan, 2000). Hence, individual and collective levels are connected to some extent. Specifically, Glenville and Bienenstock (2009) claim that the individual level Social Capital contributes to create Social Capital at a more aggregate level, but at the same time collective Social Capital determines the type of investment in relationships made at the individual level.

This reasoning is mirrored also by some proponents of the individual tradition like Coleman (1988) and Lin (2001). They attempted to link the *sociological perspective* of social interactions with the more *atomistic perspective* of the economic theory. The former leaves little space for individuals' decisions since people actions are shaped by society. The latter has traditionally overlooked the social context in which people live and define their action on the basis of utilitarian self-interested actions.

In particular, Coleman (1990) who defined Social Capital as "*some aspects of social structure [...] which facilitate certain actions of individuals who are within the structure*" (p. 302) claims that there are norms and sanctions in a community (some aspects of social structure) which make it possible to act against one self-interest at a benefit of society at large. Such norms are based on trust and reciprocity, which Coleman (1988: p.102) introduced with the system of "credit slips" on moral obligations. Indeed, by doing a favour to an individual and trusting him/her (trust) to reciprocate in the future (reciprocity), an obligation is established. Sanctions are then applied in the case of not respected obligations. Accordingly, norms can be either internalised in the actor (private good) or externally enforced by a community through sanctions (collective good). In the latter case, because norms are enforced through relations among individuals embedded in social structures, Social Capital is considered as an inalienable aspect of the collective. However, Coleman adopted a more solid micro-sociological view, embedding the concept of Social Capital in the context of Rational Choice Theory, arguing that social interdependencies exist and arise among actors because they want to have access to resources owned and/or controlled by other individuals, in order to maximise their utility.

Similarly, Lin (2001) largely based his theory of Social Capital on the rational choice perspective of maximisation of profit and minimisation of loss, claiming that rational interactions lead to the creation of social structures that generate resources that are different from those owned by the single individual and that belong to the community. Although Lin (2001) concludes that a definition of Social Capital must include both, individual and structural elements, like Coleman (1990) he takes a more individualistic view claiming that the desire to maximise the amount of resources and to keep those already owned foster social interaction and therefore the individual Social Capital generate collective Social Capital.

Nevertheless, Social Capital is not located only in the actor but in the relationships among the actors (Coleman, 1988). Therefore, Social Capital "*constitutes both, and aid in accounting for different outcomes at the level of individual actions and an aid towards making the micro-to-macro transition*" (Coleman, 1988: p.101).

Therefore, as the economics Nobel laureate Ostrom claimed in his work with Ahn (2001), the individual and the collective views are not theoretically and analytically exclusive. In fact, even if is not clear what mechanism and process is behind the transition

from one level to another or which dimension causes the other, most academics agree that Social Capital exists at both levels (Coleman, 1990; Halpern, 2005; Fine, 2001; Nahapiet and Ghoshal, 1998; Ostrom and Ahn, 2003; Putnam, 2000) and benefit societies as well as individuals. For instance, a charity association and its network provide help for others (benefit for society), but also grants its members with friendship and valuables connections (benefit for individual).

Therefore, this research acknowledges Social Capital as being both, a public and an individual asset. However, this study will be focused on Social Capital at the individual level since it is interested in the individual levels of Political Participation with the awareness that individual Social Capital will ultimately benefit society at large.

4.2. SOCIAL CAPITAL QUALITY OF ANALYSIS: CULTURAL VS STRUCTURAL VIEW

Another central debate over the conceptualisation of Social Capital is related to the "Cultural" (Bourdieu, 1986; Coleman, 1988; Putnam, 1993, 1995, 2000) and "Structural" (Burt, 1995; Lin, 2001; Portes, 1998) perspectives.

Sociologists in the *cultural tradition* argue that social inequalities cannot be explained by the unequal distribution of economic capital alone, but that other forms of capital must be considered (Bourdieu, 1986). One form of capital is “Social Capital”, that Bourdieu (1986) defines as a property of durable and helpful relationships that an individual may exploit to gain certain benefits or other forms of capital (Cultural or Economic) through membership in a group. Accordingly, the accumulation and internalisation of Economic and Cultural Capital require socialisation. Through socialisation, people can acquire new skills and/or cultural resources (books, paintings, etc.) increasing the chance to get better titles (Institutionalised Capital) and therefore better jobs, ultimately, maximising their utility. Socialisation creates a sense of belonginess which would push people to provide safety and mutual exchange of resources on the basis of norms of solidarity, reciprocity and trust.

Similarly, Coleman (1988, 1990) and Granovetter (1985) put emphasis on the usefulness of social relationships for creating and enforcing a cooperative environment based on trust and social norms which would facilitate the use and exchange of resources for maximising individual utility. Indeed, acting cooperatively and for the mutual benefit

require people to trust each other on norms of reciprocity, that is, I will do something for you, but then, if I need it, I trust that you will return the favour (Putnam et al., 1993). Therefore, Social Capital can be defined as "*features of social organisations such as trust, norms and networks that can improve the efficiency of society by facilitating coordinated actions*" (Putnam et al., 1993: p. 167). However, above all, *trust* is considered the lubricant of associational life and the same Social Capital may exist only if trust prevails in social networks (Putnam 2000, p. 20-21). Yet, relationships in such social networks are regulated also by *norms* of reciprocity and tolerance which are built to prevent bad externalities and decrease the cost of transactions among members of the network. Those norms are part of the cultural layer of the society an individual belongs to and specify what actions are rightfully acceptable (Coleman, 1988, 1990). Accordingly, Social Capital stems from cultural and social values.

On the other hand, the *structural tradition* considers the structures of networks existing among people relevant to the concept of Social Capital. In particular, the focus is on elements like the position occupied in networks, network dimension, structural holes, density and resources embedded in social relations.

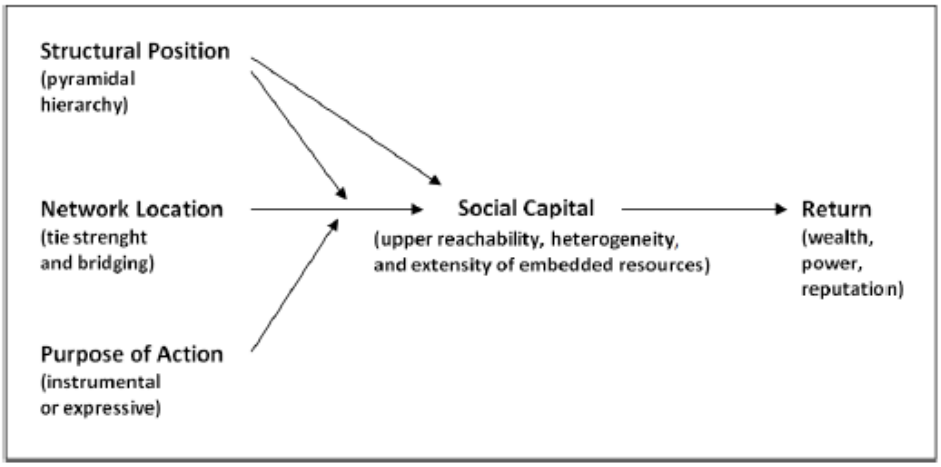
Portes (1998) is among the first supporters of this perspective, stating: "*Social Capital is the ability of actors to secure benefits by virtue of membership in social network or other social structures*" (p. 6). However, Lin (2001) is considered as the main representative of the structural standpoint. He proposed a theory of Social Capital based on the neo-classical theory of capital, focused on "*investment in social relations with expected returns in the marketplace*" (Lin, 2001: p. 19). Accordingly, the core element of social interaction is profit and "*individuals engage in interaction in order to produce profits*" (Lin, 2001: p. 19). Therefore, like scholars in the cultural tradition, Lin (2001) sees individuals' connections and access to resources in such connections at the basis of Social Capital. However, Lin (2001) refuses the collectivistic proposition of Social Capital provided by the Cultural proponents, eliminating culture, norms, rules and trust from the set of dimensions which constitute Social Capital. Rather, Social Capital is an individual asset and because it is "capital", like all other forms of capital it implies investments. For Lin (2001) investments in trust and reciprocity do not exist, rather those are attitudes that are difficult to measure. For this reason, "*interactions usually occur among actors with similar characteristics of resources and lifestyles. The greater the similarity the less effort is required in interaction*" (Lin , 2001: p.75). Thus, interactions

are mostly “homophilus” (Lin, 2001: p. 39), meaning that those occur between actors that are similar (e.g., similar lifestyle, social status or economic characteristics) (see also Lazarsfeld and Merton, 1954; Laumann, 1966). Hence, individuals with similar resources interact more. This implies that “*maintaining resources is the primary motivation for action*” (Lin 2001: p. 75), since interacting with people that have our same resources would not grant access to other diverse forms of resources. This in turn means to interact with those who are closer in the social structure to us. Accordingly, “*The stronger the tie, the more likely the Social Capital accessed will positively affect the success of... an action*" (Lin, 2001: p. 75). Such homophily principle explains disparities in society since it causes inequalities in Social Capital and thus in ownership of and access to valuable resources.

On the other hand, actions directed at people who own different and more valuable resources (Heterophilus interaction) are very rare, as they require greater effort and higher levels of trust. Accordingly, “*The weaker the tie, the more likely ego will have access to better Social Capital*" (Lin, 2001: p. 76). Particularly, Lin refers to Granovetter (1974) who showed that, in order to have access to a different variety of information, an individual might need to go out of his/her social circle and connect to outside networks. Such kind of connections between the social circles are called "Bridges”. The closer individuals are to a bridge in a network, the better is the Social Capital they can access to. Accordingly, resources are linked to social positions rather than to individuals. Indeed, whilst the occupant of a specific position may change, the resources remain in that position. In this sense, Lin (2001) distinguished between resources embedded in social structures and resources owned by individuals. Specifically, personal resources like education or wealth are fully owned by a person who can freely dispose of them. In contrast, social resources are accessible only through social connections and these are mainly power, reputation, information and credentials.

From these considerations, Lin (2001) derived his definition of Social Capital as "*all resources embedded in social structure which are accessed and mobilised in purposive actions*" (p. 29) and created his own model of Social Capital (Figure 4.4).

Figure 4.4. Lin's Model of Social Capital.



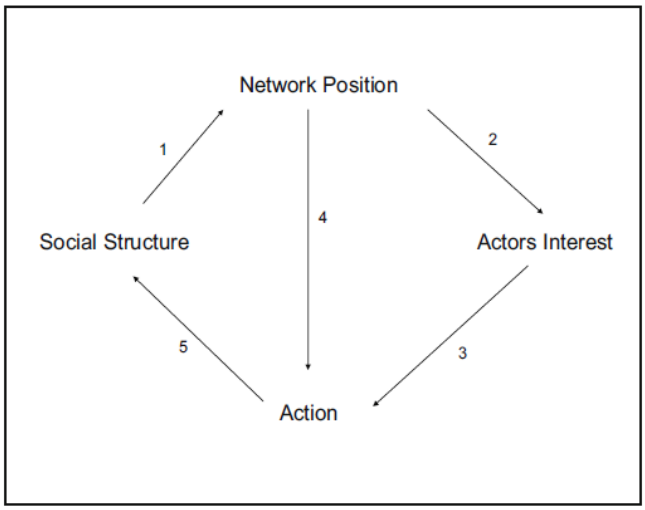
Source: Lin (2001): p. 76.

Notably, Lin (2001) approach is focused on structural constraints, hierarchical positions and structure of relationships (strong/weak ties) and his approach is a clear representation of the Structural perspective over Social Capital.

A third author who contributed to the Structural view of Social Capital is Ronald Burt (1992, 2000). He embedded the concept of Social Capital in the Structural Theory of Actions, according to which actors' goal is to maximise their utility through their personal financial (money) and human (e.g., intelligence and skills) resources. These personal resources can be expanded to maximise individual utility only through social resources (e.g., information, knowledge, contacts, etc.) which are the content of relationships among at least two actors and therefore are mutually owned. However, the maximisation of the utility is affected by the position of the actor in the social structure and by his/her interests. Therefore, interests and position in social structure determine social actions, which themselves affect the social structure (see Figure 4.5).

Therefore, Burt (1992) defines Social Capital as "*friends, colleagues, and more general contacts through whom you receive opportunities to use your financial and human capital*" (p. 9), or simply as "*the brokerage opportunities in a network*" (Burt, 1997: p. 355).

Figure 4.5. Structural Theory of Social Action Components and Interactions



Source: Burt (1982): p. 3.

According to Burt (1992), the access to Social Capital is determined by the position occupied in the network. Specifically, in any markets actors need to realise an optimal exchange, but in order to do so they need information, which is usually incomplete in the market. Therefore, actors will use their network structure to gather the required information. Accordingly, the structure of the network is a determinant of the success in a market. Structurally speaking, for Burt (1992) size, closure or openness of a network and redundancy of the contacts can have a relevant impact on the successful completion of the exchanges. Closure is given if no actor of the network has a relation with actors in other networks. Vice versa we will have an open network. Moreover, also the number of *non-redundant* contacts is relevant. A relationship is redundant if it leads to the same resources or in this case to the same information. If a relation is not redundant, then we have what Burt (1992) calls "*Structural Hole*", or "*a relationship of non-redundancy between two contacts. [...] As a result of the hole between them, the two contacts provide network benefits that are in some degree additive rather than overlapping*" (p. 18). To be additive, resources should come from heterogenous networks rather than from homogenous ones. Accordingly, structural holes represent weak ties. Therefore, in contrast to Bourdieu (1986) and Coleman (1988) and similarly to Lin (2001), for Burt (1992) valuable Social Capital exists in weak ties rather than in strong closed relations. Furthermore, Burt (1992) found that the number of structural holes is positively correlated to the size of the network. The bigger the size, the more structural

holes are present in the network. Hence, when analysing Social Capital researchers should take into consideration structural aspects of social networks like size, contacts redundancy, closure and openness of the networks.

The structural view of Lin (2001) and Burt (1992) embedded in the rational choice theory has been widely criticised as they failed to pay attention to the feelings of people who actually love, like or hate one another and "*therefore associate together or avoid each other for reason that lie outside the domain of rational calculation*" (Field, 2008: p. 31). This is to say that the establishment of social relations and thus the resources embedded in them are not given just by the desire of people to maximise their utility. Hence, rational reasoning is not always a constant of social relations which instead are characterised also by irrational elements. Therefore, the "*ceteris paribus*" (maximization of utility) does not exist since each relation is the outcome of a combination of different aspects, including norms, trust, reciprocity, tolerance, etc. (Small, 2009).

Moreover, the structuralists approach mainly measure Social Capital through social networks' size and density which do not indicate anything about resources' availability and accessibility in a specific network, nor whether people are willing to share such resources, which in turn should imply mechanisms of trust and reciprocity (Finsveen and Van Oorschot 2008; Van Der Gaag and Snijders, 2005). Furthermore, two individuals may have the same network size and show the same frequency of contact but still the quality of the resources available in the network could be different as well as the quality of the relationships and therefore needs and goals cannot be met or satisfied in the same way (Finsveen and Van Oorschot 2008). Arguably, size and contact frequency are not enough for measuring the amount of Social Capital in social networks. Therefore, the "*Structural Perspective*" alone cannot provide a comprehensive and exhaustive representation of Social Capital.

However, even the "*Cultural Perspective*" by itself does not appear to be sufficient to provide a clear conceptualisation of Social Capital. For instance, the concept of group closure plays a critical role in both Bourdieu (1986) and Coleman (1990) conceptualisations of Social Capital. A social structure is closed if all the individuals in a group are connected to each other by some kind of relations. The level of closure has a positive correlation with the level of Social Capital possessed within the groups. Closed groups facilitate access to information and the establishment of reputation, trust and

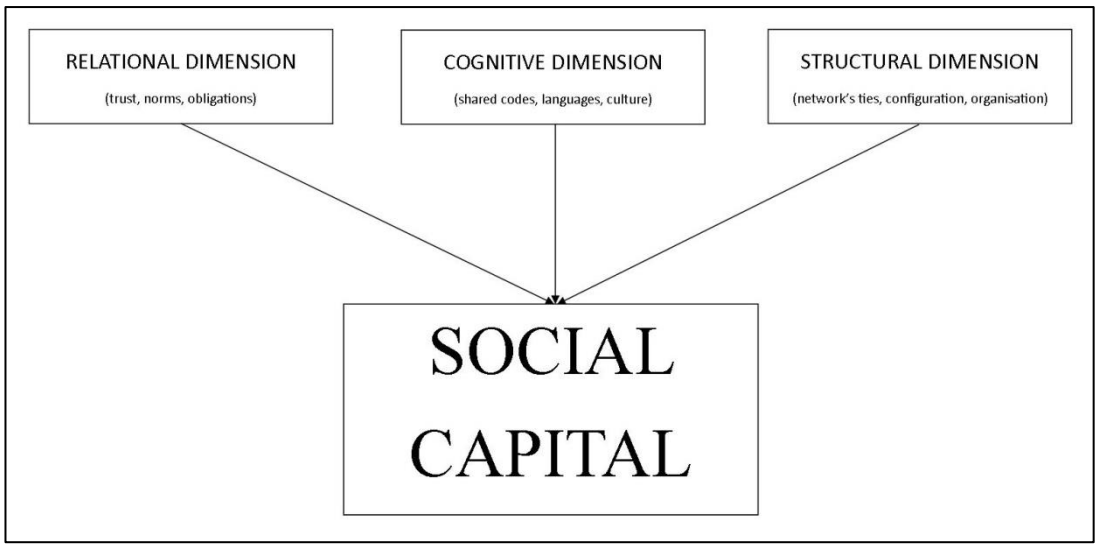
reciprocity that maximise Social Capital. Such closed groups have strong relations. Accordingly, only strong ties can generate Social Capital (Coleman, 1988; Bourdieu, 1986). Notably, the cultural perspective neglects and overlooks the importance that weak ties may have in providing access to resources (Lin, 2001; Portes, 1998). In fact, closed structures prevent the entry of valuables resources like heterogeneous information and innovation into groups that can be generated by network characterised by weak ties. Moreover, Lin (2001) pointed out that by focusing only on norms of trust, solidarity and reciprocity, the cultural perspective neglects the structural assets of networks that can affect the creation and maintenance of such norms. Additionally, trust and reciprocity might be correlated also to Cultural and Human capital, but they are not considered as dimensions of those forms of Capital (Fine, 2001: p. 25). However, it has been argued that although Social Capital shares some similarities with those forms of capital, namely the non-monetary aspect (Bourdieu, 1986; Grootaert and Bastelaer, 2001), it is quite different from them. Firstly, it is "social", that means it implies social aspects like trust and reciprocity. Secondly, most of the definitions of Social Capital contain the concept of Social Networks as a "*set of relations*" (Knoke and Yang, 2008: p. 8) and in order for these relations to work and allow accessibility to and mobilisation of resources, people have to trust each other on norms of reciprocity (Bourdieu, 1986; Coleman 1988; Putnam, 2000). This holds true even if Social Capital is conceptualised in terms of returns over investments of money, time and energies in social relationships like in the more structural tradition (e.g., Lin, 2001). Indeed, such investments of scarce resources would not take place in absence of trust (Bourdieu, 1986; Coleman, 1988). Hence, it is difficult to overlook the importance of trust and reciprocity for Social Capital.

However, some proponents of the cultural tradition acknowledge the importance of social structure to generate norms of trust and reciprocity and take a more nuanced approach to the conceptualisation of Social Capital. For instance, Putnam (2000) introduced a differentiation between Bonding Social Capital and Bridging Social Capital which mirror the strong and week categorisation of social ties structures of Burt (1992) and Lin (2001). His example was followed by other authors who proposed a multidimensional conceptualisation of Social Capital merging the cultural and the structural perspectives. For instance, Nahapiet and Goshal (1998) proposed a three-dimensional model (Figure 4.6), which has been widely adopted (e.g., Chang and Chuang, 2011; Lin, 2011; Zhao et al., 2016) and which presents:

1) A *Structural* dimension (network's ties, network's configuration and organisation).
2) A *Cognitive* dimension (shared codes, languages and culture).
3) A *Relational* dimension (trust, norms and obligations).

In Nahapiet and Goshal's (1998) model, the structural dimension correlates the structural view, while the cognitive and relational dimensions are related to the cultural view.

Figure 4.6. Nahapiet and Goshal (1998) Model of Social Capital.



Source: adapted from Nahapiet and Goshal (1998).

Subsequently, Uphoff (1999) also proposed a multidimensional conceptualisation of Social Capital based on the distinction between:

1) *A Structural* dimension, concerned with people's behaviours across different types of interpersonal interactions (like informal meetings with friends or formal participation through membership in various organisations);
2) *A Cognitive* dimension, which stems from people's perception of trust, shared values and beliefs.

Following the multidimensional tradition, this research acknowledges that Social Capital cannot be defined neither on the basis of the cultural view alone nor on principles of the structural perspective alone. Rather, the two views should be merged, and Social Capital should be considered as an individual as well as a public asset including both cultural and structural elements. The next section details and conceptualises the approach taken in this thesis.

4.3. CONCEPTUALISATION OF SOCIAL CAPITAL

In order to provide a clear and comprehensive definition of Social Capital which might include the elements common to all the perspective discussed so far (Cultural/Structural, Individual/Collective and Multidimensional) the conceptualisations of the major exponents of Social Capital belonging to those different views have been taken into consideration (Table 4.1). The final aim is to identify common points and contrasting elements to arrive at a comprehensive definition of Social Capital.

Common points to almost all the definitions and opposing perspectives appear to be the concepts of "*resources*" and "*social networks*". This observation is further validated by the meta-analysis on Social Capital conducted by Fulkerson and Thompson (2008) who found that the most frequently used terms in the definition of Social Capital are indeed "networks" and "resources" (Figure 4.7).

Networks and resources resonate with both the structural and cultural traditions of the individualistic perspective.

The importance of networks to Social Capital is given by the fact that they may facilitate or constrain the access and mobilisation of resources embedded at both individual and collective level by affecting perceptions, beliefs and actions of their members (Knoke and Yang, 2008). Examples are the network of a local Roman Catholic Church or of a workplace, which may be shaped by different values and whilst the former would include only people of the Roman Catholic faith, the latter would incorporate a variety of beliefs and faiths. Hence, they would affect access to resources by members of the network in different ways.

Table 4.1. Conceptualisation of the Major Exponents of Social Capital.

Perspective	Cultural		Structural		Multidimensional	
	Author/s	Definition	Author/s	Definition	Author/s	Definition
Individual	Bourdieu, 1986: p. 248 Bourdieu, 1986: p. 243 Coleman, 1990: p. 302	"*the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition*". " *social obligations...convertible, in certain conditions, into economic capital and may be institutionalized in the form of a title of nobility*". "*Social capital is defined by its function. It is not a single entity, but a variety of different entities having two characteristics in common: They all consist of some aspect of social structure, and they facilitate certain actions of individuals who are within the structure*".	Portes, 1998: p. 6 Lin, 2001: p. 29 Burt, 1992: p. 9 Burt, 1997: p. 355	"*the ability of actors to secure benefits by virtue of membership in social networks or other social structures*". "*all resources embedded in a social structure which are accessed and/or mobilized in purposive actions*". "*friends, colleagues, and more general contacts through whom you receive opportunities to use your financial and human capital*". "*the brokerage opportunities in a network*".	Nahapiet and Ghoshal, 1998: p. 243	"*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. Social capital thus comprises both the network and the assets that may be mobilized through that network*".
Collective	Putnam, 1995: p. 67 Woolcock, 1998: p. 153	"*features of social organization such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit*". "*the information, trust, and norms of reciprocity inhering in one's social networks*".	Loury, 1992: p. 100	"*naturally occurring social relationships among persons which promote or assist the acquisition of skills and traits valued in the marketplace. . . an asset which may be as significant as financial bequests in accounting for the maintenance of inequality in our society*".		

Source: see references in Table.

Figure 4.7. Most Frequently Used Social Capital Concepts[1].

Concept	Mainstream journals	Specialty journals
Networks	29 (46%)	87 (36%)
Resources	24 (38%)	68 (28%)
Relationships	15 (24%)	67 (28%)
Trust	13 (21%)	67 (28%)
Reciprocity	11 (18%)	46 (19%)
Individuals	25 (40%)	57 (24%)
Norms	6 (10%)	48 (20%)

Note: Stratified random sample ($n = 240$) and mainstream journal articles ($n = 70$). Results are based on the *Social Science Citation Index*.

Source: Fulkerson and Thompson (2008).

Even the types of resources that could be accessed would be different. This consideration is relevant to the Technology Affordance Principle discussed in Chapter 3, and later in Section 4.4.3 for which different SNSs affordances may affect levels and types of Social Capital within social networks. Network is hereby considered in terms of structural forms of social relations (Flap, 2002; Lin, 2001), characterised by the quality of ties embedded in it (Flap, 2002; Putnam, 2000). One of the general laws of Social Networks Theory is that individuals with similar opinions and beliefs (Value homophily), cultural backgrounds (Status homophily) and who live in the same geographic area have larger and better opportunities of knowing each other (Lazzarsfeld and Merton, 1954; Mcpherson et al., 2001). This behaviour has been documented in several domains of life like friendship, religious affiliation, political membership, etc. and it is based on the "Social Focus Theory" (Homans, 1950). According to this theory people choose to focus on a specific activity on the basis of their own interests and cultural background. However, because people's time is limited, they must choose or give priority to one focus over another. Therefore, the focus is regarded as a constraining factor in developing social

[1] *Mainstream Journals* considered were the American Sociological Review, the American Journal of Sociology, the British Journal of Sociology, Social Forces, and Social Problems. *Specialty Journals* included in the analysis were Social Science and Medicine, Journal of Socio-Economics, World Development, Rural Sociology, Sociology of Education, Policy Sciences and American Behavioural Scientist.

relationships. Moreover, sociologically speaking similar people usually share common interests and attend same events (focus). This explains the high amount of similarity in networks. The Social Capital generated in such homogeneous and strong networks in often coined "Bonding Social Capital" and is characterised by strong ties providing high levels of moral and psychological support based on norms of trust and reciprocity reinforced by a close sense of belonginess to a group or network (Gittel and Vidal, 1998; Putnam, 2000).

Next to strong ties there are weak ties. The concept of weak ties and their beneficial effects are grounded on the seminal work of Granovetter (1973) (cited in Hofer and Aubert, 2013) who argue that the strength of ties is inversely related to the homogeneity of the parts involved in a relation. Wider contact diversity means diversity of information and resources that can be accessed through those networks. Therefore, establishing relations with people who belong to different closed groups, that is bridging different closed networks (Burt, 1992), can help to reach a different type of Social Capital that could be extremely beneficial for finding new information otherwise not available in closed structures. Particularly, weak ties have demonstrated to be useful for searching jobs (Williams, 2006), disseminate information (Granovetter, 1973; Williams, 2006) and enhancing tolerance towards others (Pettigrew and Topp, 2006). Because of their bridging function, weak ties generate Bridging Social Capital which is regarded as inclusive (Putnam, 2000) since it bridges across gender, race, geographical space and ethnicity. However, compared to strong ties, weak ties are characterised by lower levels of emotional connections. This can hinder their efficiency in cooperative behaviour for accessing scarce resource. Arguably, different ties can provide different types of Social Capital (Putnam, 2000). Hence, the introduction of network structures in the definition is essential to account for different types of Social Capital.

The second element that is almost always included in the conceptualisation of Social Capital is “resources” (Figure 4.7). Indeed, scholars agree that to assess the value of a network aspects like size, frequency of contact and quality of relationships existing in such network (weak/strong ties) are not enough (Van Der Gaag et al., 2008). In fact, possessing an equal network to that of another individual in terms of size or quality does not mean possessing the same amount and type of resources. Moreover, it does not indicate whether the resources are available and/or can be mobilised in the same measure. Like the term “networks”, the word “resources” recurs in the definitions provided by

authors belonging to opposing perspectives like Bourdieu (1986) and Lin (2001). Hence, its merging function with respect to those opposing perspectives comes to help in supporting the conceptualisation of Social Capital as a multidimensional concept. According to Bourdieu (1986) and Lin (2001) resources cover a wide set of life domains and are aimed at satisfying the needs of an "*average person in modern industrial society*" (Van der Gaag and Snijders, 2005). Following Lin (2001) both personal and social resources fall within the term "resources". Personal resources are those already possessed by an individual and can be further divided into symbolic (e.g., institutional accreditation) and material resources (e.g., house, pc, TV, money, etc.). They are also "actual resources" as individuals already own them. Rather, social resources are those acquired through social networks, for instance, having a friend of a friend recommending you or providing a good word when looking for a job. Those can be considered "potential resources" as they are not owned by individuals but are accessed only through successful social interactions.

Furthermore, different types of resources can be used for different purposes, namely, instrumental or expressive (Lin, 2001). Indeed, "*actors are motivated to either maintain or gain their resources in social actions – purposive actions. Action to maintain resources can be called expressive action, and action to gain resources can be called instrumental action*" (Lin 2001: p. 75). The expressive dimension refers to Social Capital as an end as well as a mean to get emotional support (e.g., sharing sentiments, providing psychological support, etc..). Returns of expressive actions concern physical health, mental health and life satisfaction. The instrumental actions involve the use of Social Capital as a means of reaching a specific goal, like looking for job, finding someone to babysit or getting a loan, and result in social (e.g., the favourable or unfavourable opinions over an individual in a social network, namely reputation), economic (e.g., disposition of goods) and political (e.g., decisional power) returns. This research considers both these type of actions as connected to personal and social resources.

Rarer seems the use of dimensions like trust and reciprocity, stemming from the cultural perspective. However, as it has been argued in Section 4.2, a social network is a "*set of relations*" (Knoke and Yang, 2008: p. 8) and for these relations to work and allow accessibility to, and mobilisation of resources, people have to trust each other on norms of reciprocity (Bourdieu, 1986; Coleman, 1988; Putnam, 2000). Indeed, social networks generate Social Capital if those people who do favours to other individuals trust

(expectation) that they will return the favour when they need it (obligation). Hence, trust requires reciprocity in forms of obligations (Coleman, 1988). However, following Putnam (2000) and Perugini et al. (2003) this research adopts a more virtuous definition of reciprocity which is regarded as an individual's tendency to reciprocate others regardless of any beneficial, instrumental outcomes. In case of strategic behaviour, reciprocity is rooted in the "self-interest maximization assumption" of the rational choice theory, while in the case of personal individual tendency, reciprocity is embedded in the concept of "internalised social norms" (Dohmen et al., 2009; Perugini et al., 2003). The main distinctive feature of the internalised social norms is that people who hold an internalised norm are likely to conform to the directives of a social rule (in this case reciprocity) even when they are not observed, externally sanctioned or cannot gain any personal instrumental benefit. This is in line with the concept of Virtue and Civic Virtue discussed earlier and which guides this study (see Chapter 3). Hence, Social Capital is here understood as:

"*The amount of actual and potential resources embedded in social network structures and which can be accessed and mobilised in purposive actions on the basis of internalised norms of trust and reciprocity*".

The proposed definition stems from those of Bourdieu (1986), Bourdieu and Wacquant (1992), Lin (1999), Nahapiet and Goshal (1998), Woolcock (1998) and Putnam (1995) and merges the different perspectives of Social Capital discussed in the previous two Sections following a long-established tradition in the field of Social Capital.

4.4. SOCIAL CAPITAL AND THE INTERNET

Early studies on Social Capital are focused on the relevance of face-to-face interactions. However, much of the relational interaction that people engage in nowadays is in the online environment (Gainous et al., 2013). This raises the issue of whether the Internet may provide the same benefits in terms of Social Capital creation and/or maintenance of offline interactions. Indeed, different views exist on this issue, which according to Quan-Haase and Wellman (2004) and Neves (2013) can be summarised as follow:

1. Internet use increases Social Capital.
2. Internet use decreases Social Capital.

3. Internet use transforms Social Capital.

An extensive review of literature identified two additional viewpoints (Cole et al., 2000; Franzen, 2003; Helliwell and Putnam, 2004; Uslaner 2004):

4. Internet use does not affect Social Capital.
5. Internet use produces negative Social Capital.

According to Resnick (2002), several technological affordances make the Internet a promoting agent of Social Capital. Firstly, it removes barriers to interaction allowing for communication across time and space and, as we have seen, interaction is a necessary condition for building Social Capital. Secondly, the Internet might make it possible to interact in much larger social networks. Larger social networks allow for more social ties and more paths to follow to access scarce resources (Bourdieu, 1986; Burt, 1992; Fisher, 1982). Thirdly, it may increase information flows: particularly interactions which maintain a sort of anonymity may allow people to transcend their stereotypes. This, together with the suppression of certain sensory information (voice, smell, facial expression, etc.) may allow individuals to overcome emotional reactions that would interfere with their relationships. Fourthly, the Internet may help to maintain records of previous interactions and feedback which can create accountability and help to promote collective identity and a sense of trust (Skoric et al., 2009).

Indeed, several studies suggest that through its various forms of expressions like blogs, email and so forth, the Internet is a fundamental mean through which people may maintain and create new social relationships, thus developing Social Capital (Ellison et al., 2007; Ho et al., 2003; Skoric et al., 2009; Valenzuela et al., 2009; Gil De Zuniga et al., 2012). Specifically, studies which found a positive association between Social Capital and the Internet may be further divided in three categories (Neves, 2013): those which show that the Internet reinforce offline Social Capital (Kavanaugh et al., 2005; Kraut et al., 2002; Quan-Haase and Wellman, 2004; Robinson and Martin, 2010), those which show just a positive relationship among the two variables (Alessandrini, 2006; Bauernschuster et al., 2011; Wang and Wellman, 2010) and those which claim that the Internet creates and maintains Social Capital offline (Boase, 2006; Hampton et al., 2011; Miyata et al., 2008).

However, other authors suggest that the Internet decreases Social Capital. In particular, Putnam (2000) and Norris (2001) claim that the Internet is used mainly for

recreational activities and entertainment and it occupies a large proportion of people spare time and thus it prevents people from spending time in socially desirable activities, in a logic of "*time displacement*" (Nie et al., 2002; Zhang et al., 2010). Similarly, Kraut et al. (1998) found that Internet usage not only decreased Social Capital, social interaction, levels of individual trust and participation in civic activities, but also it increased loneliness. Nie and Hillygus (2002) also identified the detrimental effect of Internet use on Social Capital, as it reduces the time spent with family, friends and on meaningful social interactions. Moreover, Nie et al. (2002) argued that even if the Internet may expand social networks size, the impact on Social Capital is ambiguous: in fact, when weak ties within a larger social network displaces strong ties within a smaller network, it is rather questionable whether this represents loss or gain of Social Capital.

Other authors suggested that the Internet transforms Social Capital. In particular, Williams (2001) acknowledged the fact that the Internet may displace offline Social Capital, but he argued that it may also create new forms of Social Capital in the cyber space. Williams's (2001) findings show that although the Internet is not a good environment for developing Bonding Social Capital, it promotes the creation of online weaker ties which may offer more knowledge on public issues with the possibility of fostering social engagement.

Another stream of the literature suggests that the Internet does not significantly affect Social Capital. For instance, Uslaner (2004), found that the use of the Internet is irrelevant for both, trust and sociability. Trust was not related to online frequency and vice versa. The Internet from this point of view was a neutral instrument (Robinson and De Haan, 2006) or, in Uslaner's (2004) words, "*an additional outlet*" (p. 13) of interaction for those people who were already connected with each other in the offline world. Several authors supported such view, providing empirical evidence. For instance, Franzen (2003) found that Internet use was irrelevant to both network size and time spent socialising (two of the variables used to measure Social Capital; Cole et al., 2001). Similarly, Wellman et al. (2001) found that online interaction supplements face-to-face communication without increasing or decreasing it. However, they also highlighted the positive effect on social involvement for heavy Internet users somehow contrasting the time displacement logic. Indeed, Resnik (2002) argued that a time displacement logic would hold true if the Internet occupies time that would otherwise be spent in face-to-face interactions or socially desirable activities. Similarly, Robinson and Martin (2010) did not find any

evidence of time displacement of Internet use and activities related to Social Capital, such as church attendance and face to face meetings. However, if the displaced activities are driving or watching television, then the effect of the Internet will be still positive, even in a logic of time displacement as it would allow for some forms of interaction with others that driving or watching television would not.

Finally, Helliwell and Putnam (2004) argued that the Internet may produce negative Social Capital. For instance, the Internet has been used to "*mobilise extremists and help terrorist fund and conduct their activities*" (Skoric et al., 2009: p. 417). An emblematic example is represented by ISIS's propaganda. However, it can be argued that, even if under a negative light, the Internet has still produced Social Capital. Such negative nature of the Social Capital produced through the Internet is reinforced by studies in organizational behaviour. Indeed, it has been argued that although the Internet may lead to higher connectivity and new forms of working (e.g., instant messaging, skype, zoom, Microsoft Teams etc..) it creates at the same time higher social distance because it is used by employees to create a sort of shield with respect to their superior (Quan-Hase et al., 2005).

Notably, empirical research on the effects of the use of the Internet on Social Capital has not revealed any clear pattern and such trend is observable also in SNSs studies which are examined in the next Section.

4.4.2. THE INCONSISTENT SNSs EFFECT

Because SNSs are centred around the building and maintenance of multiple social networks for interaction purposes, scholars in the field of Social Capital started to investigate their contribution to the field (see Chapter 3). However, similarly to what the literature highlighted for the use of the Internet in general, research has produced contrasting evidence of the impact of SNSs use on Social Capital. Indeed, three contrasting effects have been identified: positive, neutral and negative.

Most studies on SNSs use and Social Capital found a positive relationship between the two. For instance, Ellison et al. (2007) found that U.S. undergraduate students who use Facebook display higher levels of Bridging and Bonding Social Capital. However, given the cross-sectional nature of their study, a clear causal direction could not be assessed. Hence, Steinfield et al. (2008) conducted a longitudinal analysis

examining the same sample one year later. Their findings indicated that the intensity of Facebook use is a strong predictor of Bridging Social Capital. Similarly, Barkhuus and Tashiro (2010), Brandtzaeg (2012), Brandtzaeg et al. (2010), Burke et al. (2010), Burke et al. (2011), Ellison et al. (2011), Hofer and Aubert (2013), Johnston et al. (2013), kaigo (2012), Lampe et al. (2013), Lee et al. (2014), Sajuria et al. (2015), Stutzman et al. (2012) and Toriumi and Kamiko (2017) found positive associations between the use of SNSs and levels of Social Capital. Scholars identified the ability of the SNSs to considerably increase the size of the social networks, as main reasons for such positive relationship. Participants can access more resources, especially information, and are able to keep track of previous interactions and feedback (likes, posts, tweets, comments, etc.) which can create accountability and may help to promote collective identity and a sense of trust within the network, consequently increasing Social Capital. This optimistic perspective is shared also by recent studies conducted during the COVID-19 pandemic, arguing that SNSs must play a larger role in generating Social Capital by creating and nurturing social connections that ultimately would allow to mitigate many social issues caused by this peculiar context where face-to-face interactions are necessarily limited (Pitas and Ehmer, 2020). Indeed, scholars called for further investigation of the effects of SNSs based Social Capital on education (Giavrimis and Nikolaou, 2020) mental health (Rodela et al., 2020) and on many other fields overall sharing an optimistic view of the effects of SNSs on people social life (Beldad, 2021; Daly et al., 2020).

Other authors found that SNSs use do not significantly affect Social Capital. For instance, Hofer and Aubert (2013) found that Twitter use does not influence Bonding Social Capital. Also, Papacharissi and Mendelson (2011) found no relation between either the number of times that people check Facebook or the amount of time they spent on it and Social Capital. Similarly, although Vitak et al. (2011) found a positive relationship between Facebook use and Bridging Social Capital, they found no significant relationship with the Bonding dimension. Brooks et al. (2014) observed that social network size and the number of visits on Facebook are not related to Bridging or Bonding Social Capital.

Finally, some studies provided empirical evidence that SNSs negatively impact Social Capital. Indeed, Bohn et al. (2014) found that Bridging Social Capital decreased with Facebook network size and that an intensive use of SNSs could lead to decreasing levels of Social Capital. Also, Li et al., (2018) found that the use SNSs for specific actions (e.g., informational, participatory, or recreational) contributes to online but not to offline

Bonding and Bridging Social Capital. This finding resonates with studies showing that social interaction on Facebook primarily contributes to Social Capital online but not offline (Li et al., 2015).

Overall, empirical studies investigating the relationship between Internet and SNSs use and Social Capital have generated mixed results (see Appendix F) for a full list of the studies consulted). Scholars attributed those inconsistent empirical findings to several reasons, as discussed in the next Section.

4.4.3. REASONS FOR INCONSISTENT EMPIRICAL FINDINGS

The literature review on the effect of the Internet and SNSs use over Social Capital has highlighted the extant opposing and inconsistent findings in empirical studies. Scholars in the field ascribed such differences to five main reasons.

Firstly, the *context* in which the research is undertaken. Different countries and even different social contexts within the same country may facilitate the creation and maintenance of different types of Social Capital depending on economic and social development. The latter, in turn, can affect also the intrapersonal characterises of the population under study, for instance literacy, self-esteem, well-being etc., that can hinder or facilitate social interaction (Putnam, 1995, 2000).

Secondly, Social Capital is a *multidimensional and multidisciplinary concept* (see Section 4.1 and Section 4.2) and as such is a complicated construct that is conceptualised in several different ways (Appel et al., 2014; Engbers et al., 2017). The lack of consistency in the unit of analysis (individual or collective, see Section 4.1), the cultural or structural operationalisation (Section 4.2) and the differentiation between the Bridging and Bonding dimensions of Social Capital are emblematic of a general uncertainty of what to measure and how. Arguably, this may lead to the contrasting empirical findings highlighted by the literature.

Thirdly, Williams (2006, 2007) showed that although the *time spent online* displaced offline activities and therefore was negatively related to offline Social Capital, it was positively related to online interaction and online Social Capital. However, these differential implications have been largely overlooked by subsequent studies which failed to differentiate between consequences of SNSs use on offline or online Social Capital and have rather merged the two, yielding contrasting results (Li et al., 2018). Indeed, those

studies that have differentiated between online and offline Social Capital (e.g., Brooks et al., 2014; Collins and Freeman, 2013; Hofer and Aubert, 2013) generated a more nuanced picture of the dynamic relationships between Internet use and various forms of Social Capital and showed that SNSs use may enhance both online and offline Social Capital, but that the strong connection is with the Bridging online dimension of Social Capital.

Fourthly, SNSs use is often measured through *time spent online* focusing *on one single digital platform* (e.g., Facebook *or* Twitter), but the results of its effects on Social Capital are generalised to the entire Social Media category even though people use multiple digital media technologies for diverse purposes (Hampton, Lee, and Her, 2011; Li et al., 2018; Valenzuela et al., 2017). Indeed, different SNSs have different functions, settings and algorithms which affect users' perceptions of the needs that each SNS can satisfy (Brandtzaeg, 2012; Petrocchi et al, 2015; Phua et al., 2017; Valenzuela et al., 2017). For instance, Facebook is more focused on reciprocal social interaction and entertainment compared to Twitter which instead is more centred around information and opinions sharing (Petrocchi et al., 2015; Huberman et al., 2009). Hence, the former is better at satisfying the needs for belongingness, social connectedness, interaction and self-presentation (Nadkarni and Hofmann, 2012), while the latter is better at fulfil informational needs (Petrocchi et al., 2015). At the same time research has shown that different types of needs are better satisfied by different types of Social Capital (Putnam, 2000). Whereas Bonding Social Capital satisfy the need for social and psychological support through mechanisms of trust, reciprocity and solidarity embedded in closed homogenous groups characterised by strong ties, Bridging Social Capital bridges across different heterogeneous social contexts and as such it is better at spreading information through weak ties. Therefore, Facebook should affect mostly Bonding Social Capital, meanwhile Twitter should influence levels of Bridging Social Capital because of their respective technological affordances (an in-depth discussion of the Technology Affordance principle and differences between Facebook and Twitter was provided in Chapter 3). Indeed, the literature review highlighted that empirical research on online Social Capital found that Facebook use predicts and increases both its dimensions, namely Bridging and Bonding (Ahn, 2012; Donath and Boyd 2004; Ellison et al., 2007; Sckoric et al., 2009; Steinfield et al., 2008), whilst MySpace use was associated with Bonding Social Capital only (Ahn 2012; Greenhow, 2011). In contrast, Twitter use has been associated with high levels of Bridging Social Capital online, but unlike Facebook

it does not seem to influence the Bonding dimension of Social Capital (Hofer and Aubert, 2013). Notably, the types of SNSs used have a significant bearing on the amount of Bonding and Bridging Social Capital accrued by their users (Skoric et al., 2016). Therefore, Social Capital Online, like its counterpart offline, relies on the context of its acquisition (Coleman, 1998; Putnam, 2000). Indeed, in the real world, the Social Capital acquired at school or in the workplace is not the same as the Social Capital acquired at church (Brady et al., 1995; Coleman, 1998; Putnam, 2000), because of differences in ties strengths and social networks' levels of heterogeneity present in those different contexts. Arguably, in the virtual world the Social Capital gained using Facebook should differ from the Social Capital acquired on other SNSs because of differences in their thematic functions and intrinsic characteristics which make for differences in technological affordances. However, most of the studies identified through the literature review, analyse one SNS and tend to generalize the results to all platforms (e.g., Ellison et al., 2007). Arguably, this is problematic, because each SNS has unique characteristics which may uniquely affect different types of social ties (strong/weak) and consequently facilitate the creation and maintenance of different types of Social Capital (Bonding/Bridging). Only recently some authors have adopted an affordance approach to investigate the specific uses of SNSs and their implications for online Social Capital (Ellison and Vitak, 2015; Pearce et al., 2015; Su and Chan, 2017; Valenzuela et al., 2017). Yet, most of those studies make no comparisons between SNSs (technology inter-affordance) but rather compare effects of different affordances within the same platform (technology intra-affordance), usually Facebook (Su and Chan, 2017). An example is the comparison between the "Liking" and the "Comment" function. The use of the "liking" function, which is considered an example of social grooming, together with the activity to post comments on Facebook, were found to be predictive of Bridging but not of Bonding Social Capital (Ellison et al., 2014; Burke et al., 2011). However, Lee et al. (2014) found the "liking function" to be positively related to Bonding Social Capital, whereas the frequent use of "comment" was negatively associated with it. Similarly, Su and Chan (2017) found that opinion expression on Facebook was negatively, and significantly, related to Bridging Social Capital, but positively related to its Bonding dimension. Notably, studies focusing on SNSs intra-affordance have reported inconsistent findings. Arguably, such pattern may be true also for different SNSs provided their differences in technological affordances.

The above discussion suggests that "*technological affordances and user participation on different SNSs have an influence on Social Capital creation, raising further questions regarding possible ways to achieve an effective user engagement on these platforms*" (Skoric et al., 2015: p. 1821). Yet, extant studies tend to measure SNSs use and generalise their effects without taking into consideration technological affordances (Boulianne, 2019).

Lastly, many studies investigated how the intensity of use of SNSs may be related to Social Capital (Section 4.4.2). Theoretically, given that Facebook's affordances facilitate the creation and strengthen of strong ties, more time spent on it may lead to the dominance of Bonding Social Capital. On the other hand, Twitter should create and reinforce strong ties and, therefore, the time spent on it should lead to a dominance of Bridging Social Capital. Yet, also in this case, findings are inconsistent (see Appendix G for a list of all the studies consulted).

Provided the logical link between SNSs' affordances, the time spent on them and their effects on Social Capital and that empirical evidence focusing solely on technology affordances or intensity of use of SNSs yielded contrasting results of their relationship with Social Capital, it can be argued that an interaction effect between the two could explain such opposing findings. Indeed, interaction effects could be at the basis of the mixed evidence provided in the literature review about the effect of the same antecedent (SNSs use) on the same outcome (Social Capital) (Field, 2013). Yet, to the best of our knowledge, none of the extant studies have investigated such interaction effect and analysed how the amount of different types of Social Capital (Bonding/Bridging) owned by users of different SNSs (Facebook/Twitter) varies across levels of intensity of use of those digital platforms.

4.5. SOCIAL CAPITAL, POLITICAL PARTICIPATION AND THE INTERNET

Previous research has generally established a strong connection between Social Capital and Political Participation (Klesner, 2004; Steinfield et al., 2008; Skoric et al., 2009; Teorell, 2003). Such consensus has a long tradition, from the classical work on Political Participation of Almond and Verba (1963) about Civic Culture, to later studies like those of Parry et al. (1992), Putnam (1993, 1995, 2000), Shah et al. (2001b), Verba e Nie (1972), Verba et al. (1995) and Zhang and Chia (2006).

However, this line of research was developed mostly in the offline context, utilising measures of face-to-face interpersonal relations; hence there is no consensus on whether the positive effect of high levels of Social Capital over Political Participation does hold true also in the online context. In fact, several studies have investigated the effects of the Internet and its forms (Blogs, SNS, etc.) on Political Participation, but with contrasting findings.

With the development of the Internet and SNSs, social interaction started to take place also online and many people have increasingly embraced SNSs to fulfil their informational (Gil de Zuniga et al., 2017; Xenos et al., 2014), emotional, and social needs (Gan and Wang, 2015; Hołyst, 2017; Zhan et al., 2016). This is because SNSs provide people with the chance to easily access multiple social resources like information, help or financial capital at any point in time and seemingly at no cost, when compared with the offline social networks (Phua et al., 2017; Resnick, 2002). Amongst all the resources which can be accessed on social networks, there is also Social Capital (Ellison et al., 2007; Gil De Zuniga et al., 2012; Valenzuela et al., 2009). Given the strong arguments in favour of a link between offline Social Capital and offline Political Participation (e.g., Lake and Huckfeldt, 1998), scholars started to investigate whether Social Capital Online could be linked to participatory behaviour online and offline (Gil de Zuniga et al., 2012; Gil de Zuniga et al., 2016; Molyneux et al., 2015; Valenzuela et al., 2017).

Indeed, online and offline political activities tend to be closely interrelated (Bakker and de Vreese, 2011). It seems that political and civic organisations (and people in general) draw on their online social networks to implement offline action (Bennett and Segerberg, 2012; Rojas and Puig-i-Abril, 2009). Recent examples include the “Arab

Spring", the "Indignados" in Spain, the "Gilets Jaunes" protest movement in France and the "Black Lives Matter" movement. Even political parties, like the Five Star Movement in Italy, have recently mobilised their online networks for on-the-ground political action. Therefore, scholars have hypothesised that the Social Capital embedded in online social networks would foster not only online but also offline political actions (Gil de Zuniga et al., 2016).

However, extant research on this topic is very limited (Tsatsou and Zhao, 2016) and the few existing empirical studies have showed that this relationship is ambiguous and not always direct or positive. For instance, Gil de Zuniga et al. (2012) argued that Social Capital influences offline participation both indirectly and directly, whereas it only has an indirect effect on online participation through the use of the digital platforms for getting news. In a later study, Gil de Zuniga et al. (2016) found that online Social Capital was a significant predictor of online Political Participation. However, they found a negative relationship with offline activities like voting. Yet, Valenzuela et al. (2017) found that Facebook and Twitter are indirectly related to offline Political Participation through its association to information received from strong and weak ties. Other authors have shown that online Social Capital predicts only online participation (Valenzuela, 2013; Yamamoto et al., 2013). In contrast, Carr (2008) and Lohr (2012) found that associations and relations in online social networks have no impact on levels of participation. Valenzuela et al. (2009) found that Online Bridging Social Capital significantly predicts only Online Political Participation and that Online Bonding Social Capital has no effects on Political Participation whatsoever. Instead, Skoric et al. (2009) found that also the Bonding dimension of Social Capital significantly and positively affects Political Participation, but only in the offline environment. Meanwhile, Gibson and McAllister (2013) showed that only Online Bonding Social Capital is significantly and positively related to Political Participation and that Online Bridging Social Capital is not correlated with any political activities. However, those studies were focused on the usage of only one SNS, mainly Facebook (e.g., Valenzuela et al., 2009), and Internet use in general (Gibson and McAllister, 2013; Skoric et al., 2009). On the other hand, research on Twitter showed that it can positively affect both online and offline Political Participation (Graham et al., 2013; Jungherr, 2016).

The above discussion suggests that technology affordance could be a differentiating element of analysis, given that different characteristics and intrinsic

functions of different SNSs (e.g., Facebook and Twitter) could explain the different and opposing findings of empirical studies (see Chapter 3). Arguably, contrasting and inconsistent empirical findings regarding the effect of an independent variable (Online Social Capital) on the same dependent variable (Political Participation) raise the need to investigate whether a moderating effect can explain such differences (Memon et al., 2019). Yet to the best of our knowledge, none of the extant studies have considered the moderating effect that the use of different SNSs may exert on the relationship between Online Social Capital and Political Participation. This is surprising, given that Facebook technological affordances are found to facilitate the creation, maintenance and reinforcement of strong ties which lead to the creation of Online Bonding Social Capital, whereas Twitter can foster the reinforcement of weak ties which may enhance Online Bridging Social Capital (Valenzuela et al., 2014; Valenzuela et al., 2017). In turn, Online Bonding and Bridging Social Capital may be linked to different types of Political Participation. Indeed, Bonding Social Capital provides emotional connections reinforced by trust on closer individuals within the family and friends' networks. This provides the social weight and contagion effect needed for influencing individuals' behaviours and take collective actions which need greater moral support like protesting, marching etc. (Centola, 2011; Putnam, 2000). Bridging Social Capital is rather characterised by weak contacts and heterogeneous networks which allow for more novel and diverse information diffusion and political contacting (Somma, 2009). However, the level of trust and reciprocity embedded in Bridging Social Capital is much lower compared with Bonding Social Capital. Hence, its influence on political behaviour is limited to actions which do not require high moral support, like voting (Gladwell, 2010; Morozov, 2011). Arguably, the effect of Online Bonding and Bridging Social Capital on Political Participation may be moderated by the type of SNSs used, based on the principle of technological affordance. This argument is supported by recent meta-analyses in the field (e.g., Boulianne, 2009, 2015, 2019; Skoric et al., 2016) which found that not only there are very few attempts to investigate the effects of online networking on political engagement, but that extant research has neglected to investigate whether differences among SNSs exists with respect to such relationship.

Furthermore, nowadays a large majority of people use two or more SNSs simultaneously (Duggan, 2015; Halpern et al., 2017; Petrocch et al., 2015). Arguably, this is because each and any of those SNSs has its unique features and affordances and

therefore may satisfy different needs (Brandtzæg, 2012; Huberman et al., 2009; Petrocchi et al., 2015; Phua et al., 2017). Given that different SNSs have different affordances that can facilitate the creation and maintenance of different types of Social Capital (Section 4.4.2 and Section 4.4.3) and that can foster different types of participatory behaviour (Chapter 3) it is conceivable that the combined and not combined use of two different SNSs can moderate the relationship between Online Social Capital and Political Participation. Yet, to the best of our knowledge, no study has investigated such effect. However, it might be that the contrasting empirical evidence discussed earlier over the effects of the Online Social Capital on Political Participation depends on the combined use of different types of SNSs together which have different technological affordances and therefore can moderate the relationship between Social Capital and Political Participation.

Moreover, many studies investigated how the intensity of use of SNSs may be related to Social Capital (Section 4.4.3) and Political Participation (Chapter 3). Arguably, given that Facebook's affordances facilitate the maintenance and reinforcement of offline strong ties (Petrocchi et al., 2015; Nadkarni and Hofmann, 2012), the time spent on it may moderate the relationship between Online Bonding Social Capital and participatory behaviour that need high personal psychological and moral support to be undertaken mostly in the offline environment like protesting, marching, etc. (Valenzuela et al., 2017).

In contrast, Twitter is centred around information and opinions sharing and is better at fulfilling informational needs through weak ties which can create social support and develop a sense of reciprocity (Huberman et al., 2009; Petrocchi et al., 2015; Valenzuela et al., 2017). Thus, the time spent on Twitter may affect the relationship between Online Bridging Social Capital and participatory behaviour that need social support (creating petitions, join civic movements, etc.).

However, to the best of our knowledge, no extant study has investigated the possible moderating effect that the time spent on SNSs can have on the relationship between Online Social Capital and Political Participation.

4.6. SUMMARISING: IDENTIFIED GAPS

A systematic review of the literature on Social Capital highlighted several gaps concerning its relationship with the use of SNSs and with Political Participation.

Specifically, the literature review on the relationship between SNSs use and Social Capital revealed the contrasting findings yielded by empirical research. Indeed, while several studies found a positive relationship (e.g., Barkhuus and Tashiro, 2010; Brandtzaeg, 2012; Brandtzaeg et al., 2010; Burke et al, 2010; Burke et al., 2011; Ellison et al., 2007; Ellison et al., 2011; Hofer and Aubert, 2013; Johnston et al., 2013; kaigo, 2012; Lampe et al., 2013; Lee et al., 2014; Sajuria et al., 2015; Steinfield et al., 2008; Stutzman et al., 2012; Toriumi and Kamiko, 2017) others highlighted no effects (e.g., Brooks et al., 2014; Hofer and Aubert, 2013; Papacharissi and Mendelson, 2011; Vitak et al., 2011) or even a negative relationship (Bohn et al., 2014; Li et al., 2015; Li et al., 2018).

Scholars have ascribed such conflicting findings to several reasons but mostly to: (1) differences in technological affordances of different SNSs and to (2) levels of Intensity of use of those SNSs (Bohn et al., 2014; Boulianne, 2019; Hampton et al., 2011; Li et al., 2018; Su and Chan, 2017; Valenzuela et al., 2017).

Indeed, the literature review highlighted how studies have focused on one SNS or on all of them together and then have generalised the results to the whole category of Social Media. Yet, each SNS has unique features and affordances and therefore may satisfy different needs (Boulianne, 2019; Brandtzæg, 2012; Petrocchi et al., 2015; Phua et al., 2017). For instance, Facebook is more focused on reciprocal social interaction compared with Twitter which instead is more centred around information and opinions sharing (Petrocchi et al., 2015; Huberman et al., 2009). Hence, the former is better at satisfying the needs for belongingness, social connectedness, interaction and self-presentation (Nadkarni and Hofmann, 2012) while the latter is better at fulfilling informational needs (Petrocchi et al., 2015). At the same time research has shown that different types of needs are better satisfied by different types of Social Capital. Indeed, according to Putnam (2000) there are two types of Social Capital, namely Bridging and Bonding Social Capital. The latter is suitable for satisfying the need for social and psychological support through means of trust and solidarity embedded in mechanisms of social interactions. In contrast, Bridging Social Capital, is better for linkage to external

assets and for information diffusion" (Putnam, 2000: p. 22). Considering that different types of SNSs satisfy different needs and that different needs are met through different types of Social Capital, researchers inferred that different types of SNSs affect different types of Social Capital. Indeed, studies on online Social Capital identified through the literature review found that Facebook use predicts and increases both Bridging and Bonding online Social Capital but that the strongest connection is with the Bridging dimension (Donath and Boyd 2004; Ellison et al., 2007; Sckoric et al., 2009; Steinfield et al., 2008). Meanwhile, Twitter use has been associated with high levels of Bridging Social Capital online, but unlike Facebook it does not seem to influence the Bonding dimension of Social Capital (Hofer and Aubert, 2013). Accordingly, the time spent on different SNSs may lead to the dominance of different types of Social Capital (Bonding and Bridging) based on the specific affordance of the SNSs included in the analysis. Provided the logical link between SNSs' affordances and the time spent on them and their effect on Social Capital and that empirical evidence focusing solely on technology affordances or intensity of use of SNSs yielded contrasting results of their relationship with Social Capital, it can be argued that an interaction effect between the two could explain such opposing findings. Indeed, interaction effects could be at the basis of the mixed evidence provided in the literature review about the effect of the same antecedent (SNSs use) on the same outcome (Social Capital), (Field, 2013). Yet, to the best of our knowledge, no study has investigated such interaction effect and analysed how the number of different types of Social Capital (Bonding/Bridging) owned by users of different SNSs (Facebook/Twitter) varies across levels of intensity of use of those digital platforms. The identified gaps are supported by scholars in the field who recently called for research related to platforms effects following the affordance principle (Boulianne, 2019; Halpern et al., 2017; Valenzuela et al., 2017)

With respect to the relationship between Online Social Capital and Political Participation, the systematic literature review revealed contrasting empirical evidence too. For instance, Gil de Zuniga et al. (2016) found that Online Social Capital was a significant predictor of online Political Participation. However, they found a negative relationship with offline activities like voting. Yet, Valenzuela et al. (2017) found that Facebook and Twitter are indirectly related to offline Political Participation through their association to information received from strong and weak ties. Other authors have shown that online Social Capital predicts only online participation (Valenzuela, 2013;

Yamamoto et al., 2013). However, Carr (2008) and Lohr (2012) found that associations and relations in online social networks have no impact on levels of participation. Instead, research on Twitter showed that it can positively affect both the online and offline Political Participation (Graham et al., 2013; Jungherr, 2016). The above discussion suggests that technology affordance could be a differentiating element of analysis provided that different characteristics and intrinsic functions of different SNSs (e.g., Facebook and Twitter) could somehow explain the different and opposing findings of empirical studies. Arguably, inconsistent empirical findings regarding the effect of an independent variable (Online Social Capital) on the same dependent variable (Political Participation) call for an investigation of whether a moderating effect can explain such differences (Memon et al., 2019).

Yet to the best of our knowledge, no extant study has considered the moderating effect that the use of different SNSs may exert on the relationship between Online Social Capital and Political Participation.

Furthermore, nowadays a large majority of people use two or more SNSs simultaneously (Duggan, 2015; Hampton et al., 2011) to satisfy different needs (Brandtzæg, 2012; Huberman et al., 2009; Petrocchi et al., 2015; Phua et al., 2017). Provided that different SNSs have different affordances that can facilitate the creation and maintenance of different types of Social Capital and that can foster different types of participatory behaviour it is conceivable that the combined and not combined use of two different SNSs can moderate the relationship between Online Social Capital and Political Participation. Yet, to the best of our knowledge, no study has investigated such effect.

Also, many studies investigated how the intensity of use of SNSs may be related to Social Capital (Section 4.4.3) and Political Participation (Chapter 3). Arguably, given that Facebook's affordances facilitate the maintenance and reinforcement of offline strong ties (Petrocchi et al., 2015; Nadkarni and Hofmann, 2012), the time spent on it may moderate the relationship between Online Bonding Social Capital and participatory behaviour that need high personal psychological and moral support to be undertaken mostly in the offline environment like protesting, marching etc. (Valenzuela et al., 2017).

In contrast, Twitter is centred around information and opinions sharing and is better at fulfil informational needs through weak ties which can create social support and develop a sense of reciprocity (Huberman et al., 2009; Petrocchi et al., 2015; Valenzuela

et al., 2017). Thus, the time spent on Twitter may affect the relationship between Online Bridging Social Capital and participatory behaviour that need social support (creating petitions, join civic movements, etc).

However, to the best of our knowledge, no extant study has investigated the possible moderating effect of the time spent on SNSs on the relationship between Online Social Capital and Political Participation.

5. RESEARCH AIM, QUESTIONS AND THEORETICAL FRAMEWORK

The extensive review of the Political Marketing, Political Participation and Social Capital literature related to the use of SNSs has identified several gaps (Table 5.1).

Table 5.1. Gaps in extant literature.

STREAM OF LITERATURE	GAPS
Political Marketing	Political Marketing as a discipline: **1.** Has not engaged with theories of democracy, ethical questions and theories of participation attracting criticisms which have hindered the research in the field. **2.** Has been focusing on the welfare of political parties and relevant stakeholders and for this reason it has been the object of criticisms. Politics has a higher purpose than commercial profitability and should benefit society at large, rather than just parties and lobbies.
Social Capital and Political Participation	Empirical research on the effects of Online Social Capital on Political Participation both online and offline has yielded contrasting findings (positive/negative/no effect). Arguably a moderation effect on this relationship can be provided by: **3.** The specific technological affordance of each SNS. **4.** The intensity of use of the SNS. **5.** The combined or not combined use of the SNS.
SNSs use and Social Capital	Empirical studies on the effects of SNS use on Online Social Capital have yielded contrasting evidence (positive/ negative/no effect). Arguably, the amount of Online Social Capital owned by individuals may differ with respect to: **6.** An interaction effect between the type of SNS employed and its intensity of use.
SNSs use and Political Participation	Empirical studies on the effects of SNS use on Political Participation online and offline focusing solely on one SNSs or on its intensity of use have yielded contrasting evidence (positive/ negative/no effect). Arguably, the amount of Political activities performed by citizens online and offline may differ with respect to: **7.** An interaction effect between the type of SNS employed and its intensity of use.

The two gaps concerning Political Marketing are related to theoretical aspects and empirical process of research. Hence, to address those gaps, this study will investigate citizens' political participatory behaviours, providing a research framework based on Social Capital at the individual level (Chapter 4). Notably, Social Capital originates from

Sociology but is linked also to the Participatory Theories and the Communitarianism perspective of Politics and to Virtue Ethic (Chapter 3), because it embeds concepts like civic virtue, trust, reciprocity, social relationships and intimacy.

The remaining gaps are addressed through the following research questions:

Q1. Does the type of SNSs used moderate the relationships between Online Social Capital and Political Participation? To what extent?

Q2. Does the intensity of use of SNSs moderate the relationships between Online Social Capital and Political Participation? To what extent?

Q3. Does the combined use of SNSs moderate the relationships between Online Social Capital and Political Participation? To what extent?

Q4. To what extent do levels of Online Social Capital differ across different types of SNSs employed at different levels of their intensity of use?

Q5. To what extent do levels of Political Participation differ across different types of SNSs employed at different levels of their intensity of use?

To fill the gaps identified through the literature review and answer the proposed research questions, this study aims to investigate the impact of the affordances of different types of Social Network Sites (Facebook and Twitter) and their intensity of use (time spent online) on sharing cooperative and mobilising behaviours of people in the context of Social Capital and Political Participation. The broad setting is the growth of "*mediatisation*" and "*digitalisation*" of social interactions through social media, under the assumption of "*technological determinism*" and "*technology affordances*" (Chapter 3).

To investigate the above, this study employs three main concepts. Firstly, **Social Capital** which mirrors cooperative and sharing behaviour in social interactions based on norms of trust, solidarity and reciprocity (Chapter 4). Specifically, this research focuses on social interactions online. Hence, the focus is on Online Social Capital (Williams, 2006). The second concept is **Political Participation**, representing mobilised behaviour in the form of all the voluntary and purposeful activities, individually or collectively carried out by citizens, which target and affect the political and civic spheres, through both legal or illegal praxis online and offline (Ekman and Amna, 2012; Fox, 2014; Van

Deth, 2014), (Chapter 3). The third concept is **Online Social Networks** representing the "*mediatisation*" and "*digitalisation*" of social interactions through SNSs differentiated according to their affordance and their intensity of use (Chapter 3).

The underlying theoretical frameworks of this research which bring together the above concepts are: the ***Resource Mobilisation Theory*** (Zald and McCarthy, 2002) which is employed to answer research questions Q1, Q2 and Q3; the ***Social Capital Theory*** (Bourdieu, 1986; Coleman, 1988; Putnam, 2000) which is used to answer research question Q4; and the ***Social Network Theory*** to answer research question Q5. These theories are expanded with the "***Technology Affordance Principle***" (Norman, 1988) to test for interaction and moderating effects of the different types of SNSs employed and their intensity of use.

The *Resource Mobilisation Theory* refers to the "*instrumental rationality model*" and infers that resources such as money, education, skills, etc., affect Political Participation. According to this theory, Political Participation is a rational behaviour given by a desire for change. The resources available to people represent the link between that desire for change and the ability to mobilise around that specific desire (Zald and McCarthy, 2002). Therefore, those with more resources are more likely to participate in political activities. Following Bourdieu (1986), Bourdieu and Wacquant, (1992) and Lin (2001), Social Capital is hereby considered a resource like all other types of capitals (human, financial, etc.). Indeed, activated by human relationships, Social Capital fulfils productive activities when people use the relationships as resources to achieve their goals (Coleman, 1988). Specifically, in this study Social Capital is understood as a resource made of the sum of all types of actual and potential resources embedded in social networks and which can be accessed and mobilised on the basis of norms of trust and reciprocity (Bourdieu and Wacquant, 1992; Putnam, 2000). Trust and reciprocity facilitate cooperative behaviour among people of the network (Putnam, 2000; Norris, 2002). In turn, cooperative behaviour will facilitate the mobilisation of the resources present in the network which are needed to perform a specific action. Those resources can take the form of useful information, psychological help, advice, financial help, reference for a job, personal relationships, the capacity to organize groups etc. (Paxton, 1999). According to the literature review, it is possible to clarify the role of Social Capital as predictor of Political Participation based on three aspects:

- Trust.
- Interactions.
- Associations in Social Networks.

Trust reduces complexity for individuals while providing them with a sense of security which encourages interaction and cooperation (Warren, 1999), and make them willing to participate in the process of producing and bearing the cost of public goods through Political Participation (Park, 2004). Moreover, social networks function as a 'school' which educate people for civic virtues, encourage the spread of information and promote mobilisation. Indeed, Helliwell and Putnam (2007) and Campbell (2009) have shown that when individuals are members of a social network, they tend to participate more. Moreover, people are more likely to become involved in politics when they are asked to do so, especially if the request comes from someone they know within their social network (Campbell, 2013; McClurg, 2006).

Thus, following the Resource Mobilisation Theory, *Social Capital* created on SNSs and the amount of it "owned" by individuals is a predictor of Political Participation. However, Social Capital is a multidimensional concept made of two dimensions, namely Bonding and Bridging (Putnam, 2000). Such differentiation is relevant to the Resource Mobilisation Theory since several studies have demonstrated that Bridging and Bonding Social Capital give access to different resources and consequently may facilitate different kinds of political behaviours (Chapter 4). Moreover, the lack of differentiation between Bonding and Bridging dimensions was argued to represent one of the reasons for the contrasting results regarding the effects of Social Capital on Political Participation (Boulianne 2015; Gustafsson, 2012; Skoric et al., 2009; Williams, 2006). Furthermore, Political Participation is investigated in its conventional and unconventional forms in both the online and offline environments (Dalton, 2008; Dalton et al., 2010; Ekman and Amna, 2012; Norris, 2002; Parry et al., 1992; Van Deth, 2014). Such distinction between different forms of Political Participation is advocated by scholars who emphasise how the effects of the different types of Social Capital on Political Participation vary in relation to various political activities (Chapter 4, Section 4.5). Hence, the operationalization of such variable through one unique dimension could drive to misleading results and could

be at the basis of the divergent findings highlighted in the literature review (Boulianne, 2009; Gibson and Cantijoch, 2013; Nisbet and Scheufele, 2004; Vaccari, 2012).

Given that Online Social Capital is conceptualised through the Bonding and Bridging dimensions and that Political Participation is examined in its Online and Offline forms each of the five main research questions has several subsidiary questions which are formulated as reported in Table 5.2.

To account for inconsistent findings in the extant research about the effect of Online Social Capital on Political Participation (Chapter 4), the "*Technology Affordance*" principle is recalled (Norman, 1988) and the type of SNSs employed with their intrinsic affordances and their level of intensity of use are tested for moderation within the Resource Mobilisation Theory framework. Indeed, the existence of contrasting and inconsistent empirical findings regarding the effect of an independent variable (Online Social Capital) on the same dependent variable (Political Participation) calls for an investigation of whether a moderating effect can explain those differences (Memon et al., 2019). Given that different SNSs have different affordances and that people, usually, employ more than one SNS (Petrocchi et al., 2015), the combined use of SNSs is argued to moderate the relationship between Online Social Capital and Political Participation.

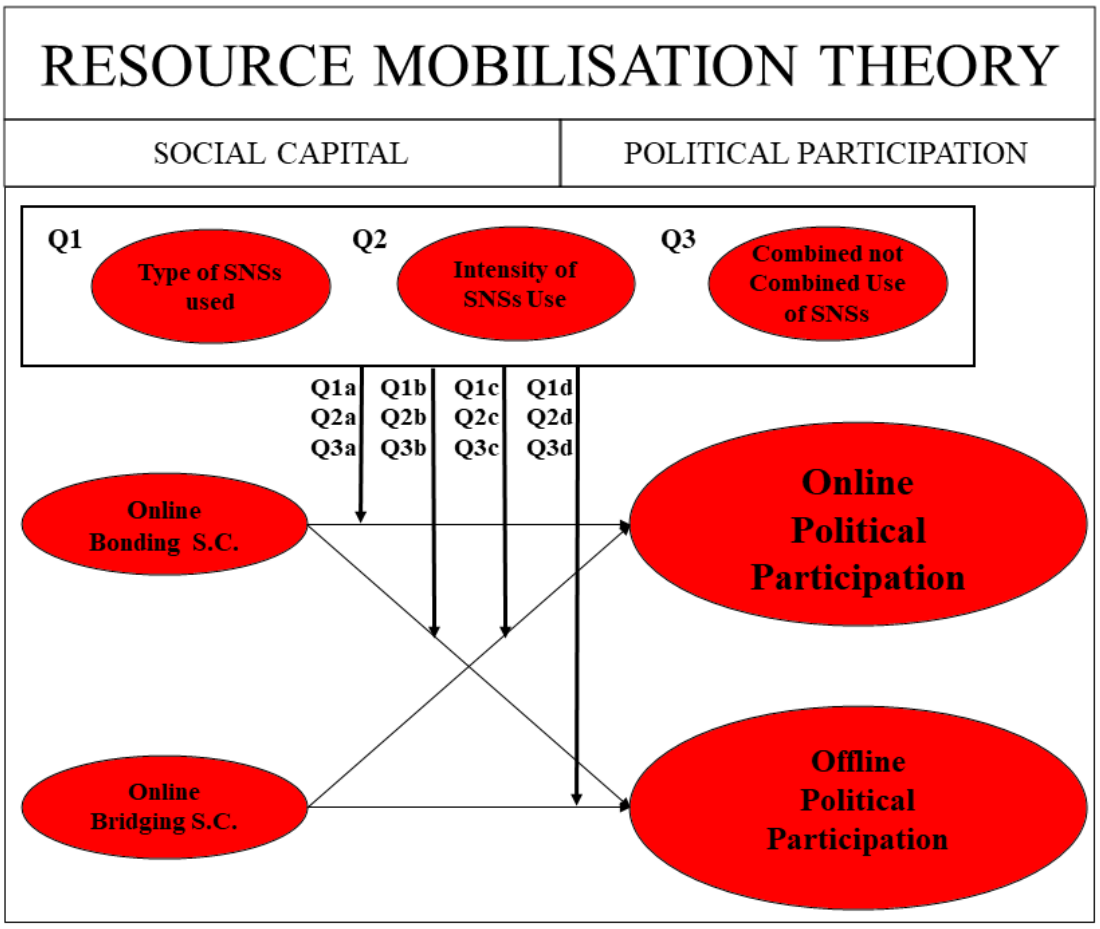
Therefore, the types of SNSs used, their intensity of use and their combined and not combined use are tested for moderation on the relationship between online Bonding and Bridging Social Capital and Political Participation online and offline.

Table 5.2. Main and Subsidiary Research Questions.

Main Question	Subsidiary Question
Q1. Does the type of SNSs used moderate the relationships between Online Social Capital and Political Participation? To what extent?	**Q1a.** Does the type of SNSs used moderate the relationships between Online Bonding Social Capital and Online Political Participation? To what extent? **Q1b.** Does the type of SNSs used moderate the relationships between Online Bonding Social Capital and Offline Political Participation? To what extent? **Q1c.** Does the type of SNSs used moderate the relationships between Online Bridging Social Capital and Online Political Participation? To what extent? **Q1d.** Does the type of SNSs used moderate the relationships between Online Bridging Social Capital and Offline Political Participation? To what extent?
Q2. Does the intensity of use of SNSs moderate the relationships between Online Social Capital and Political Participation? To what extent?	**Q2a.** Does the intensity of use of SNSs moderate the relationships between Online Bonding Social Capital and Online Political Participation? To what extent? **Q2b.** Does the intensity of use of SNSs moderate the relationships between Online Bonding Social Capital and Offline Political Participation? To what extent? **Q2c.** Does the intensity of use of SNSs moderate the relationships between Online Bridging Social Capital and Online Political Participation? To what extent? **Q2d.** Does the intensity of use of SNSs moderate the relationships between Online Bridging Social Capital and Offline Political Participation? To what extent?
Q3. Does the combined use of SNSs moderate the relationships between Online Social Capital and Political Participation? To what extent?	**Q3a.** Does the combined use of SNSs moderate the relationships between Online Bonding Social Capital and Online Political Participation? To what extent? **Q3b.** Does the combined use of SNSs moderate the relationships between Online Bonding Social Capital and Offline Political Participation? To what extent? **Q3c.** Does the combined use of SNSs moderate the relationships between Online Bridging Social Capital and Online Political Participation? To what extent? **Q3d.** Does the combined use of SNSs moderate the relationships between Online Bridging Social Capital and Offline Political Participation? To what extent?
Q4. To what extent do levels of Online Social Capital differ across different types of SNSs employed at different levels of their intensity of use?	**Q4a.** To what extent do the amounts of Online Bonding Social Capital differ across different types of SNSs employed, considering different levels of intensity of use of SNSs? **Q4b.** To what extent do the amounts of Online Bridging Social Capital differ across different types of SNSs employed, considering different levels of intensity of use of SNSs?
Q5. To what extent do levels of Political Participation differ across different types of SNSs employed at different levels of their intensity of use?	**Q5a.** To what extent do levels of Offline Political Participation differ across different types of SNSs, considering different levels of Intensity of use of SNSs? **Q5b.** To what extent do levels of Online Political Participation differ across different types of SNSs, considering different levels of Intensity of use of SNSs?

Figure 5.1 portrays the research framework of this thesis under the Resources Mobilisation Theory, expanded through the moderating effects proposed to answer research questions Q1, Q2 and Q3 and all their subsidiary questions.

Figure 5.1. Model with Moderation Effects.



However, having access to specific resources on social networks (in this instance to Social Capital) does not imply that people will be able or willing to perform a specific political behaviour (Lin, 2001). Indeed, one of the criticisms to the Resource Mobilisation Theory and Social Capital as related to Political Participation is that, rather than using their resources to participate in politics, people "*might be much more inclined or necessitated to use their resources for more important, more relevant, more pleasant, less threatening, or less demanding areas of life*" (Van Deth, 2000: p. 119-120). Moreover, according to Krishna (2002) "*the automaticity assumed in the Social Capital argument—namely, that high Social Capital leads directly to greater Political Participation—is not analytically or conceptually clear*" (p. 439).

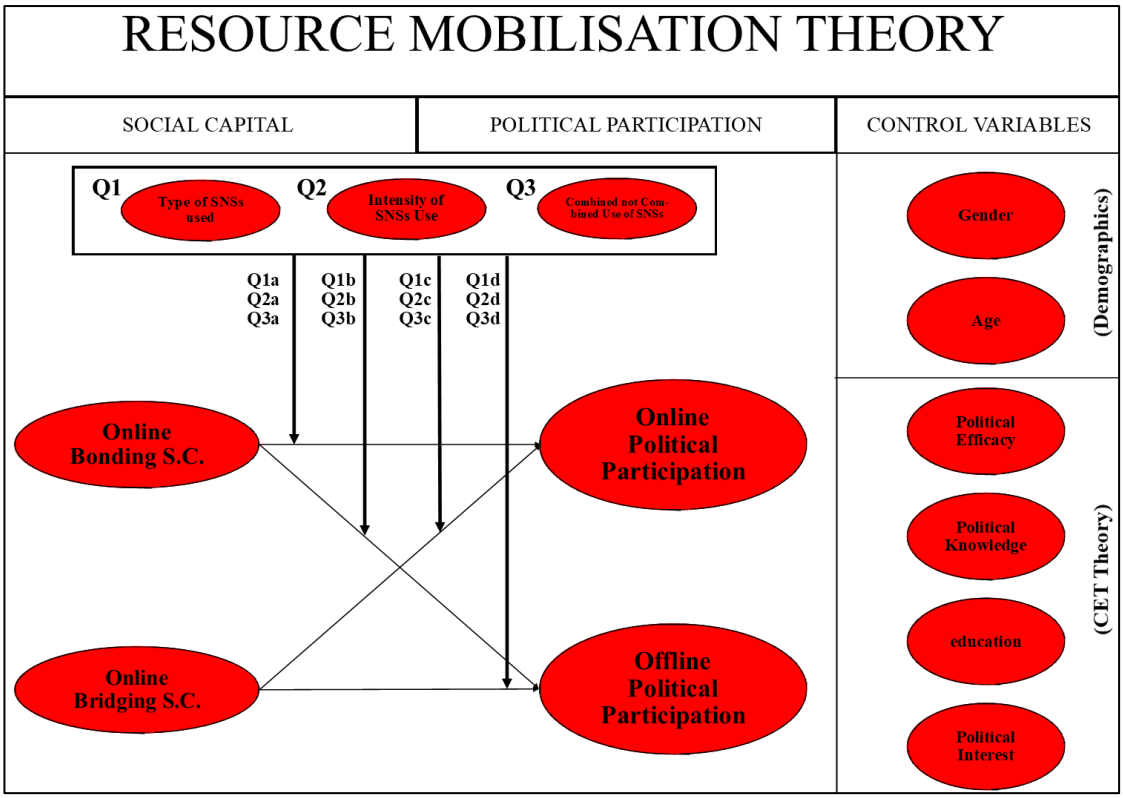
Arguably, other factors must be considered when studying Political participation. Indeed, political studies showed that people who are likely to perform political actions usually have high levels of political knowledge (Norris, 2000; Bimber, 1998), as they use SNSs to stay informed and receive political news (Gil de Zuniga et al., 2012), and also have high levels of political interest (Krueger, 2006; Melo and Stockemer, 2014; Skoric et al. 2009; Verba et al., 1995; Wolfinger and Rosenstone, 1980), education (Pattie et al., 2004) and internal political efficacy (Moeller et al., 2014; Beaumont, 2010).

Such results support the ***Cognitive Engagement Theory*** (CET) which proposes that an individual's Political Participation is the result of access to information and his levels of education, political interest and self-efficacy (Inglehart, 1977; Pattie et al., 2004). The underlying assumption is that the more people are interested (Political Interest) and informed about civic and political affair (Political knowledge), the more they believe they can succeed in performing a specific political behavior (Internal efficacy), and therefore they will participate in politics. However, citizens must possess a modicum of education and the capacity to think critically to be capable of engaging in the civic and political life (Comber, 2007; Morse, 1993). Moreover, the lower the cost of access to information, the more citizens consume information from the media and the higher the level of political knowledge and interest among citizens which further leads to increase in Political Participation. Arguably, the emergence of social media has reduced the cost of accessing political information. Therefore, given that this study is focused on the study of SNSs and on the level of Political Participation displayed by citizens, the CET theory is of particular relevance. Hence, the control variables Education (Education), Political Interest (PInt), Political Knowledge (Pknow) and Political Efficacy (PEff) are introduced in the proposed theoretical framework.

Furthermore, previous studies in the field of political and social engagement provided empirical evidence that age may affect the levels of an individual Political Participation (Eisenstadt, 1956; Franklin, 2004; Goerres, 2007; Inglehart, 1977; Marshall, 1952; Melo and Stockemer, 2012; Pattie et al, 2004; Quintelier, 2007) together with gender (Briggs, 2017; Burns et al, 2001; Childs, 2004; Karp and Banducci, 2008; Verba et al, 1997). Indeed, the literature suggests that men are more prone to participate in politics than women with respect to both conventional (i.e., party membership) and unconventional (i.e., cause-related NGOs) forms of Political Participation (Calenda and Meijer, 2009; Kaufhold et al., 2010). Moreover, several studies provide empirical

evidence that males are more eager to participate in online forms of political activities than women (Albrecht, 2006; di Gennaro and Dutton, 2006; Gibson et al., 2005). Additionally, while young individuals are usually the most disengaged, elderly people have shown higher levels of participatory behaviour in political and civic life and many studies in the field of Political Participation have controlled for it (Gil De Zuniga et al., 2012; Skoric et al., 2009; Valenzuela et al., 2009). Hence, this research also controlled for gender and age. The final model to answer research questions Q1, Q2 and Q3 and all the subsidiary questions is represented in Figure 5.2.

Figure 5.2. Model with Moderation Effects and Control Variables.



Social Capital Theory is employed to answer research question Q4 and all its subsidiary questions and ascertain whether the amount of Online Social Capital (Bonding and Bridging) owned by SNSs users differs across different types of SNSs employed and at different levels of their intensity of use. Although Social Capital Theory claims that association and interaction in social networks can foster the creation of Social Capital, the review of the literature has highlighted contrasting results with regards to the effect of online interactions. Indeed, it seems that the use of SNSs may increase, decrease or have no effect at all on Social Capital (see Chapter 4). Several reasons were identified

through the literature review to explain such conflicting findings, but this research focuses on the differences in the affordances of the type of SNSs used and their intensity of use. Given that extant studies focusing on one SNS (Facebook or Twitter) and their intensity of use yielded contrasting empirical evidence over the effect of SNSs on Social Capital, we argue that an interaction effect between the specific type of SNS employed and its intensity of use may exist. Hence, we integrate and expand the Social Capital Theory with the ***Technology Affordance Principle*** to contribute to the ongoing debate over the effect of online interaction on Social Capital. This reasoning is in line also with the principle of "Context Acquisition" arising from Social Capital Theory (Coleman, 1998). Indeed, as in the real world the Social Capital acquired at school is not the same as the Social Capital acquired, say, at the Church, so in the virtual world the Social Capital gained through the use of Facebook may differ from the Social Capital acquired on other SNSs. Arguably, this could be due to differences in the thematic focuses and functions of those SNSs (Petrocchi et al., 2015; Valenzuela et al., 2017).

To answer research question Q5 and all its subsidiary questions and to investigate to what extent Political Participation differs across different types of SNSs employed at different levels of their intensity of use, the ***Social Network Theory*** (Granovetter, 1973; Putnam 2000; Wellman, 1983) is expanded through the ***Technology Affordance Principle*** similarly to what discussed above for the Social Capital Theory. The Social Network Theory argues that direct participation in the social networks (even if online) of everyday life promotes Political Participation through several mechanisms. First, scholars found that association in online social networks may provide users with political news and mobilising information ((Dimitrova et al., 2014; Gil de Zuniga et al., 2013; Holt et al., 2013; Pasek et al., 2009; Tang and Lee, 2013; Towner, 2013; Xenos et al., 2014). This exposure to political content increases citizens' political knowledge. According to research on traditional offline media, the more knowledgeable individuals are more likely to participate in meaningful political actions (Boulianne, 2015). This holds true also for online social networks even when exposure to such information is accidental. Accidental information can still become influential because it has been filtered by trusted sources within users' networks like family members and friends (Bode, 2012). Secondly, online social networks offer the chance to develop ties with political or civic groups that seek volunteers for their respective causes (Bode et al., 2014; Musick and Wilson, 2008; Tang and Lee, 2013). Citizens who belong to civic or political associations are more likely to

be involved in politics because their memberships increase the chance of being asked to participate (Musick and Wilson, 2008; Verba et al., 1995). A third mechanism refers to the political discussion and deliberation which take place on SNSs and that has been shown to exert a positive effect on participatory political behaviour (Halpern and Gibbs, 2013; Vraga et al., 2015).

Furthermore, other scholars have focused on the processes of "social contagion," according to which a person tends to imitate social behaviour of close and trusted members of a network. Arguably, political expressions and opinions shared on online social networks may be contagious and may mobilise their users (Vitak et al., 2011). Lastly, Social Network Theory argues that, through interaction, people develop shared attitudes and norms based on social trust and reciprocity (Putnam 2000; Wellman, 1983), which ultimately promote Political Participation as a common good. Regardless of the mechanism, Social Network Theory argues that the attributes of individuals are less important than their relationships and ties with other actors within the network which can facilitate or hinder the above mechanisms (Burt, 1992; Granovetter, 1973; Lin, 2001). Therefore, different network structures can hinder or facilitate Political Participation. Yet, the network structures depend on the context on which those networks are formed (Coleman, 1988). Translated into the online environment of the SNSs that have different affordances, this is equivalent to say that different SNSs can facilitate different network structures and then different types of Political Participation.

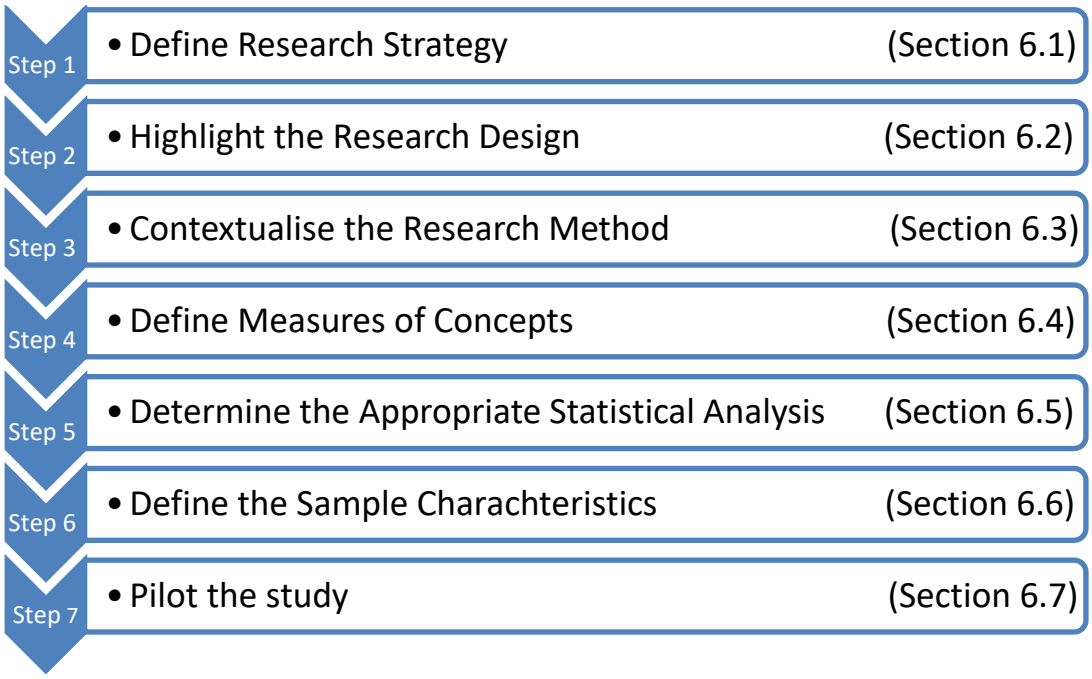
Some scholars in the field do support such argument. Indeed, Dimitrova et al. (2014), Woo-Yoo and Gil de Zuniga (2014), Skoric et al. (2016) and Valenzuela et al. (2017) highlighted the value of "Technology Affordance" to explain how different SNSs may facilitate different types of participation in relation to the intrinsic characteristics and functions of the SNSs considered. However, also in this case the literature review on the relationship between SNSs use and Political Participation highlighted the inconsistent findings in empirical studies (Chapter 3). Many authors blamed the lack of consideration of the intensity of use of SNSs in many studies as the reasons for the opposing empirical evidence (Valenzuela et al., 2009). Most importantly, even the few studies that focused on technology affordance and carried out cross-platforms investigation or those which focused on intensity of use provided inconsistent findings of the effect of SNSs use on Political Participation both online and offline (Skoric et al., 2016). Hence, this thesis will investigate whether the type of SNS used and the intensity of use of that specific SNS

interact in affecting Political Participation. In doing so, this research adheres to the argument that, to avoid misleading results (Chapter 3), "*a distinction between online and offline political activities should be maintained*" (Vissers and Stolle, 2014, p. 950).

6. RESEARCH STRATEGY, DESIGN, METHODS, MEASURES, SAMPLING AND TECHNIQUES OF ANALYSIS.

This chapter details the research approach taken in this study following the systematic procedure proposed by Bryman (2012) and reported in Figure 6.1.

Figure 6.1. Research Process



Source: adapted from Bryman (2012).

To tackle the research questions proposed in Chapter 5, we adopted a quantitative research strategy (Section 6.1) with a cross-sectional design (Section 6.2) employing an on-line self-administered questionnaire (Section 6.3) comprising measures used in previous studies (Section 6.4). PLS-SEM analysis and two-way parametric and non-parametric ANOVAs are employed to analyse the data (Section 6.5) gathered through a web panel sample (Section 6.6). The questionnaire was pre-tested through a pilot study (Section 6.7). Justification and limitations of the chosen approach are discussed in the related Sections.

6.1. RESEARCH STRATEGY

The choice of research strategy is linked to the research paradigm underpinning the researcher's beliefs in terms of knowledge development and interpretation. According to Bryman (2012) there are two main paradigms, Positivism and Interpretivism. They are characterised by different views related to the nature of reality (Ontology) and to what can be regarded as acceptable knowledge (Epistemology).

Ontologically speaking, Positivists believe that one objective and universal reality exists which is independent of social actors and their interactions (objectivism). In contrast, Interpretivists emphasize the subjective meaning of a reality relative to specific social settings and actors (Constructionism). Hence, there is no definitive reality.

With respect to epistemological views, positivists are concerned with the deductive approach, that is "*the purpose of theory is to generate hypotheses that can be tested…allowing explanations of laws to be assessed*" (Bryman, 2012: p. 28). Acceptable knowledge must be generated through measurement and observation directed by the human senses. Interpretivists instead are more concerned with the inductive approach that is, knowledge can be obtained through a deep and contextualised understanding of social interaction with the final aim to draw theoretical inferences out of observations (Bryman, 2012).

Differences in Ontological and Epistemological views have implications for the methodological approach to research. Indeed, Positivists tend to use quantitative research strategies where knowledge is deemed acceptable only if it can be verified through measurements and observations that can be quantified and expressed in numbers (Domholt 2005). Moreover, studies must be replicable and universally testable and findings generalisable. To achieve such objectives, researchers usually employ structured instruments of data collection such as structured interviews, surveys or laboratory experiments which allow for easier replication and large sample sizes (Orlikowski and Baroudi, 1991).

Interpretivists, instead, typically uses qualitative methods of research to explain social phenomena and uncover the reasons behind people behaviours investigating social constructions such as language, consciousness and shared values (Klein and Myers 1999). To this purpose interpretivists usually employ less structured instruments of data

collection like unstructured interviews, observations and focus groups which allow for deepness of information at the expense of (1) study generalisability, because of the use of small non-probability samples and (2) study reliability, due to the absence of standardized techniques of analysis (Bryman, 2012).

This study adopts a quantitative strategy underpinned by the positivism paradigm and the objectivism view of knowledge. There are three main reasons for this.

Firstly, the research follows a deductive approach. Research questions investigating the digital context of Social Media interactions have been generated following existing theories of Social Capital and Political Engagement as derived by Putman (2000) and Zald and McCarthy (2002). Hence, the study follows a confirmatory approach to theory. However, the conceptual model presented in Figure 5.2 (Chapter 5) can be considered as an extended version of the Resource Mobilisation Theory Framework as it introduces the "Time Spent on SNSs" and "Type of SNSs used" variables as moderators of the relationships between Social Capital and Political Participation online and offline. While the introduction of these two variables stems from considerations arising from the literature review, the analysis of their moderating role is exploratory. According to Bryman (2012) the distinction between confirmatory and exploratory research as linked respectively to quantitative and qualitative strategies "*should not be viewed as constituting hard-and-fast distinctions…. qualitative research can be employed to test theories, while quantitative research is often a good deal more exploratory than is typically assumed*" (p. 409).

Secondly the aim of this study is to test the relative importance of several different causes of political engagement. As suggested by Bryman (2012), a quantitative strategy is best suited for this type of objective as "*the assessment of cause is one of its keynotes*" (p. 41).

Thirdly, according to the literature review, previous studies on SNSs use, Social Capital and Political Participation mainly employed quantitative research strategies using large samples and survey instruments to gather data (Boulianne, 2015; Skoric et al., 2016).

Once the research strategy has been defined, the next step of the research process (Figure 6.1) is to determine the research design of a study. This is discussed in the next section.

6.2. RESEARCH DESIGN

According to Bryman (2012) a research design "*represents a structure that guides the execution of a research project*" (p. 45) in terms of data collection and analysis. This study adopts a cross-sectional design, which is preferred when the aim is to collect data on many individuals at a single point in time, for a quantitative type of study. Indeed, this study employs a large sample of 1212 respondents (Chapter 7) for which responses were collected at a single point in time between January and March 2019. Moreover, this research is underpinned by a quantitative approach. Hence, a cross-sectional design is appropriate for this research project.

Cross-sectional designs are usually characterised by high levels of replicability, provided that the researcher spells out all the procedures adopted in the study in terms of sampling, research instruments, measures of concepts used, and techniques of data analysis employed (Bryman, 2012). Accordingly, in-depth details of all the above listed procedures are provided in the following Sections.

However, cross sectional studies are typically weak in terms of internal validity, that is whether a conclusion relating to a causal relationship between two or more variables holds true (Bryman, 2012: p. 60). This limitation is common to studies of SNSs use, Social Capital and Political Participation because they mostly employ cross-sectional designs (Boulianne, 2015; Skoric et al., 2016). Following the suggestions of Bryman (2012) to reduce problems of internal validity, logical reasoning and established theoretical frameworks like the Social Capital Theory were used to inform casual directions within the theoretical model (see Chapter 5).

Once the appropriate research design is defined, Bryman (2012) suggest focusing on the research methods employed to collect the data. These are detailed in the next Section.

6.3. RESEARCH METHODS: RESEARCH INSTRUMENT DEVELOPMENT

Following Bryman (2012) a research method can be defined as the clusters of techniques employed in a study to collect data. The following sections present the details and justification of the research instrument employed in this study, namely online self-completion questionnaire.

This research employs a self-completion online questionnaire (see Appendix H) created and hosted online on Qualtrics (www.qualtrics.com/uk) and administrated by the data collection company Pure Profile (www.pureprofile.com) to its respondents' panel (see Section 6.6). The survey took around 8 minutes to complete. The questionnaire was developed according to Bryman's (2012) and Rea and Parker's (2014) recommendations and followed the stages below:

1. Evaluate the appropriateness of the instrument for the focus of the study and the chosen method of research (Section 6.3.1.).
2. Designing the survey instrument considering the following:
    a) Mode of administration (Section 6.3.2).
    b) Structure of the questionnaire: questions' sequence, wording, format and level of measurement (Section 6.3.3).
    c) Length of the questionnaire and response rate (Section 6.3.4).
3. Minimise Common Method Bias (Section 6.3.5).

6.3.1. APPROPRIATENESS OF THE RESEARCH INSTRUMENT FOR THIS RESEARCH: RATIONALE, ADVANTAGES AND ISSUES.

The self-completion questionnaire is an instrument commonly employed in quantitative cross-sectional studies to collect data about people's perceptions, opinions, knowledge, attitudes and behaviour (Bryman, 2012). Indeed, it is generally employed in studies of SNSs, Social Capital and Political Participation (Boulianne, 2015; Skoric et al., 2016). It is preferred to other types of data collection instruments like interviews because it is cheaper and quicker to administer and convenient for respondents as they can complete the questionnaire when they want and at their own pace. Furthermore, it

lacks the "*interviewer bias effect*" minimising the chances that the interviewers may affect the respondents' answers (Bryman, 2012) and allowing higher response rates to sensitive questions like political behaviour (Rea and Parker 2014). For all these reasons, the self-completion questionnaire is an appropriate instrument of data collection for this study, although with limitations.

Firstly, in self-completion questionnaires respondents cannot be prompted or helped to answer questions they struggle with (Bryman, 2012). To minimise the "prompting" problem this study reduced to a minimum the use of open-ended questions (Rea and Parker, 2014) and tested the level of clarity of the survey through a pilot study (see Section 6.7).

Secondly, Bryman (2012) warn against the "question order effect". Indeed, if respondents can read the whole questionnaire before answering the first question, none of the questions asked is "truly independent" from the others. This is particularly important for studies like the current one, where there are sensitive questions related to political attitudes and behaviours. Indeed, those kinds of questions may negatively affect the completion rate of a survey as respondents could feel uncomfortable answering them (Bryman, 2012). Following Bryman's (2012) suggestions to minimise the order effect bias, respondents could see on the screen only one question at a time and could not progress further into the questionnaire unless they had answered all the questions provided at each stage of the survey.

The next section details reasons, advantages and disadvantages of the chosen online mode of administration.

6.3.2. DESIGN THE SURVEY INSTRUMENT: ONLINE MODE OF ADMINISTRATION: RATIONALE, ADVANTAGES AND ISSUES.

The online administration method was preferred to other forms of survey implementation like mail-out, telephone or in-person interviews because:

1. The main variables under investigation relate to the online environment.
2. The target population comprises Facebook and Twitter users.

3. It represents a more convenient, efficient and cost-effective way of reaching respondents (Rea and Parker, 2014).
4. It saved time in the preparation process of data as Qualtrics was set to automatically convert information into an excel file ready for the analysis.
5. It was convenient for respondents, who could take the survey at anytime and anywhere, using any device of their choice.
6. Extant research shows that respondents to online surveys are more prone to use all points of likert-type scale questions (employed in this study) because of the absence of an interviewer that minimise "social desirability biases" (Bryman, 2012).
7. Follow-up messages reminding respondents to complete the questionnaire with the aim to increase response rate are easy and fast to deliver (Van Der Stede et al., 2005; De Leeuw and Dillman, 2008).

However, online surveys also have some disadvantages. Firstly, there is a self-selection bias that in this case is exacerbated by using a web-panel sample, as only those people who are willing to enlist onto the panel of the data collection agency can be reached. This poses a limit to the generalisability of the study and therefore to its *external validity* (Bryman, 2012; Rea and Parker, 2014). Moreover, online surveys may affect the *ecological validity* of the research because the very instruments disrupt the "natural habitat" of the respondents (Bryman, 2012: p. 48). Yet, the degree of ecological validity is still superior to other techniques like experiments, focus groups or face-to-face interviews where the researcher heavily intervenes in natural settings creating laboratories or special rooms.

Details of each part of the questionnaire are provided in later sections; the rationale underpinning the development of the survey is presented in the next section.

6.3.3. DESIGN THE SURVEY INSTRUMENT: STRUCTURE OF THE QUESTIONNAIRE.

Following the suggestions of Rea and Parker (2014) the survey comprised 4 sections:

1. Information sheet.
2. Informed consent.
3. Main questionnaire body.
4. Thanking Sheet.

The information sheet (Appendix H) served three main objectives. First, it helped to increase the credibility and trustworthiness of the study by providing the researcher's and the University's contact details. Second, it informed respondents about the purpose and the importance of the study, aiming to increase their motivation to take part in the survey and to complete it. Third, it allayed the concerns that the respondents might have in terms of inconvenience, risks, disadvantages, confidentiality, data storage and safety. This last point was supported by the ***informed consent*** form which highlighted that respondents' participation was voluntary and anonymous, following the directives of the "Ethics Guidance of Kingston University" and the 2018 Data Protection Act. This reassurance aimed to reduce Common Method Bias (CMB) related to participants not speaking their true feelings because of concerns of being identified and judged according to the so-called "Social Desirability Bias" (Bryman, 2012: p. 227). We thanked respondents at the end of the survey encouraging them to get in touch if they wanted to know the results of the study. The development of this questionnaire is detailed in the next section.

6.3.3.1. MAIN QUESTIONNAIRE BODY

The development and editing of the questionnaire (Appendix H) followed the suggestions of Bryman (2012) and Rea and Parker (2014) in terms of:

1. Questions type sequence.
2. Questions wording.
3. Questions format and measurement.

Questions type sequence.

Following the categorisation of Bryman (2012: p. 253), this study employed "*questions about attitude and beliefs*", "*knowledge questions*" and "*personal factual questions*" (Table 6.1).

Attitude and Beliefs questions relating to Social Capital, Political Interest and Political Efficacy were placed towards the beginning of the survey. This is because it is believed that attitudinal and opinion questions are less affected by question order than those that touch upon knowledge or behaviour (Bryman, 2012: p.222). Accordingly, *Knowledge questions* (Political Knowledge) were placed towards the end of the survey but before more sensitive *Personal factual questions* including online and offline political behaviours, the time respondents spent on selected SNSs and demographics (Bryman, 2012). The only exception concerns the *screening question* related to the use of Facebook and Twitter which was placed at the start of the survey to establish the respondents' credentials for inclusion in this study. This question order setting should help to reduce drop-out and increase the response rates (Bryman, 2012).

Table 6.1. Survey Measures' Format, Types and Measurements.

Questions Order in survey*	Source	Format	Type	Measurement
SNSs Use	Author	Closed-ended	Personal Factual	4 options
Bonding Social Capital	Williams (2006)	Closed-ended	Attitudinal	7 points Likert-type items
Bridging Social Capital	Williams (2006)	Closed-ended	Attitudinal	7 points Likert-type items
Political Interest	Brady et al. (1995)	Closed-ended	Attitudinal	7 points Likert-type items
Internal Political Efficacy	Niemi et al. (1991)	Closed-ended	Attitudinal	7 points Likert-type items
Political Knowledge	BES (1997) Larcinese (2007, 2009)	Closed-ended	Knowledge	Trichotomous type (True/False/Don't know)
Online Political Participation	Gil de Zuniga et al. (2015)	Closed-ended	Personal Factual	11 points Likert-type items
Offline Political Participation	Gil de Zuniga et al. (2012)	Closed-ended	Personal Factual	11 points Likert-type items
SNSs Intensity of Use	Adapted from Ellison et al. (2007)	Open-ended	Personal Factual	Self-reported hours and minutes
Demographics (Gender, Age and Education)	Several sources**	Closed-ended except Age open-ended	Personal Factual	Gender: Trichotomous Age: Respondents' years Education: 5 options.

** The scale items of each construct are reported in Section 6.4.*
*** Refer to Section 6.4.*

Source: see in-table reference.

Moreover, following the suggestions of Conway and Lance (2010), all the questions measuring a specific construct were generally arranged in the same section of the questionnaire. Different sections were separated and characterised by distinct headings and introductory statements (i.e., "*Now some questions about your interactions on Facebook!*") to help respondents to "*focus and concentrate on a specific issue at a time and without distractions*" (Rea and Parker, 2014: p. 43). However, this practice could lead to patterned responses due to the "*response sets bias*" (Bryman, 2012: p. 226), that is the propensity of respondents to answer to a battery of interrelated questions on a same topic in a consistent way (i.e., marking all high or low values). Following Rea and Parker (2014) and Bryman (2012), two measures were taken to reduce the "response sets bias". First, five reliability checks questions like, "*Please, select: 'Strongly agree' for this statement*" were scattered across the questionnaire to check respondents' commitment and attention to the questionnaire. Second, respondents could see only one Likert item at a time to avoid patterned responses.

Questions' wording.

Questions' wording is bound to the measures employed in previous studies. This helps to increase the reliability of the research and to facilitate comparisons of findings through replicability of the study (Bryman, 2012). Also, it allows to establish "measurement validity" as there is already evidence that the scales used to measure the concepts under investigation in this study have already been successfully employed to capture the same domains in previous research. However, two originally reverse coded items of the Bonding Social Capital scale which included negatives (not, no) were transformed in affirmative sentences as the pilot study revealed that some respondents missed those negatives (see Section 6.7)

Questions' format and measurements

This study mostly employs closed-ended questions measured through Likert-type items (Table 6.1). The use of closed-ended Likert-type items is in line with the objective of this study and the type of analysis employed. Indeed, their use is recommended when there is the need to quantify variables related to people's attitudes, opinions and behaviour like Social Capital and Political Engagement (Bryman, 2012). Moreover, the type of analysis employed, namely PLS-SEM, (see Section 6.5) can easily handle Likert-type measures (Hair et al., 2017). The use of closed-ended questions is recommended in

self-administered surveys to increase response rates since they make the meaning of questions clearer and reduce respondents' mental fatigue (Rea and Parker, 2014: pp. 50-51).

Yet, those advantages come with limitations. Indeed, "*there is always the possibility that the respondent is unsure of the best answer and may select one of the fixed responses randomly*" (Rea and Parker, 2014: p. 52). To reduce this risk, all the Likert type scales were anchored at their extreme to meaningful labels (i.e., "Strongly Disagree" and "Strongly Agree").

There is also the risk of errors in terms of answers selection, meaning that a respondent could inadvertently checkmark a response next to the one that was intended. Moreover, respondents may lack a common understanding of the meaning of each response category. For instance, the "Strongly agree" option could mean different things to different people and its distance from other labels could not be consistent for all respondents. This raises problems in terms of measurement validity (Bryman, 2012; Rea and Parker, 2014). Following Knapp (1990) and Rea and Parker (2014), to minimise those risks, adequate space between the possible ratings was provided and categories were made mutually exclusive and equidistant by assigning numerical values to each of them. Moreover, following Carifio and Perla (2007; 2008), a visual analogue response (VAR) was employed as visual measurement instrument for all the Likert type items (Figure 6.2). Finally, following Bishop and Herron (2015) all the Likert-type items have a neutral point and are balanced to either side adopting odd points ranges. All those precautions should provide the appearance and the perception of equal distance among response options and should help to minimise validity problems and answers selection errors (Rea and Parker, 2014).

Figure 6.2. Visual Analogue Response of Survey Questions.

6.3.4. LENGTH OF THE QUESTIONNAIRE AND RESPONSE RATES

According to Bryman (2012) one of the problems with online self-completion questionnaires is low response rates, which can increase the risk of non-response bias. The evidence suggests that the level and pace of response rates depends on several factors like the questionnaire length, aesthetics, layout consistency, variety of response formats and incentives offered to respondents (Bryman, 2012: p. 236).

Questionnaire length

To increase response rate the questionnaire should take less than 15 minutes to complete (Rea and Parker, 2014) . The average time needed to answer the questionnaire of this research was measured through the pilot study, carried out in December 2018. The respondents (n = 314) spent on average 517.31 seconds (SD = 250.89) completing the questionnaire which is equal to 8 minutes and 37 seconds. This is below Rea and Parker's (2014) rule of thumb even though the mean was inflated by extreme values which produced a positively skewed distribution (Skew = 1.537, SE = .256; Min = 152; Max = 1468).

Following Bryman's (2012: p. 675) suggestions to minimise non-response bias, the information sheet mentioned the time needed to complete the survey (Appendix H) and a progress bar indicator was shown to the respondents as they progressed through the questionnaire.

Questionnaire aesthetics

With respect to aesthetics this research followed Bryman's (2012) guidelines who recommended darker and/or larger font for questions and lighter and/or smaller font for response categories (Figure 6.2). Numbers anchored to each category were bigger to improve clarity and minimise response selection errors.

Layout consistency

Fonts and colours pattern were kept consistent across all the survey to help respondents to speed up the process of questions and answers recognition allowing them to finish the survey earlier than expected.

Response variety

As mentioned in Section 6.3.3. this study employs almost completely closed-ended questions to minimise response fatigue and increase response rate. However, different types of visual analogue responses were employed to make the survey more dynamic and interesting.

Incentives

Following Bryman's (2012) guidelines to increase response rate, economic incentives and personalised follow-ups were provided to respondents by the data collection agency Pure Profile.

Once the questionnaire was created, we further tested it for clarity, comprehensiveness and acceptability through a pilot study (Rea and Parker, 2014). Details are provided in Section 6.7.

6.3.5. COMMON METHOD BIAS PRECAUTIONS

When employing research instruments like surveys, it is necessary to take precautions against Common Method Bias (CMB), that is the "*variance that is attributable to the measurement method rather than to the constructs the measures represent*" (Podsakoff et al., 2003: p.879). CMB can artificially inflate or deflate the relationships between constructs providing misleading findings. Hence, researchers should try to minimise CMB during the process of research instrument design.

Conway and Lance (2010) suggested that studies employing surveys using self-reported measures should indicate how the researchers have taken a proactive approach to minimise CMB by:

1. Providing an argument for why self-reported measures are appropriate.
2. Showing that there is no overlap in items of different constructs.
3. Providing evidence of reliability and validity of the instrument of research adopted.

Appropriateness of self-reported Likert scales for this study.

This research involves studying SNSs users' perceptions of levels of trust, reciprocity, political interest and political self-efficacy. There is no alternative source for such personal information to the users' own reports. Likert scales are considered reliable and convenient to use when the aim is to translate psychometric and attitude measures into pragmatic values (Waples et al., 2010). Furthermore, the use of self-reported measures is in line with previous studies in the field of Political Engagement (e.g., Gil de Zuniga et al., 2012, 2013, 2015; Jung et al., 2011; Lin and Chiang, 2017; Saldaña et al., 2015; Weeks et al., 2015) and is dictated by the practicality and minimum effort required by the respondents to complete the survey.

Absence of overlapping.

By conducting the pilot study, we were able to empirically ascertain that no overlap was present among variables by assessing the discriminant validity of the different constructs involved in the analysis through the evaluation of the cross-loadings values, the Fornell-Larcker criterion and the Heterotrait-Monotrait Ratios (HTMT).

Evidence of reliability and validity of the instrument of research adopted.

Several measures were taken to improve reliability and validity of the study. First, the use of scales already employed in previous research helped to establish the *face validity* of the constructs being measured and to ensure their measurements reliability as they have been already tested for stability and consistency over time. Second, reliability and validity of the measurements were further improved by setting the appropriate questions order, format and instructions as already discussed in Section 6.3.3.1. Further,

a pilot study was employed to check the clarity of the questionnaire and the levels of reliability and validity of the constructs (Section 6.7).

The above actions indicate that this study has adopted a proactive approach to CMB minimisation, as suggested by Conway and Lance (2010). Appendix I provides a table that summarises the factors identified by MacKenzie and Podskoff (2012) that have the potential to increase CMB and indicates the actions implemented in this study to tackle them.

Moreover, following Kock (2015), a full collinearity assessment (FCA) test in PLS-SEM was performed to empirically test for CMB contamination a posteriori of data collection. The FCA tests for both vertical and lateral collinearity. Vertical collinearity is present "*when two or more predictors measure the same underlying construct, or a facet of such construct*" (Kock, 2015: p. 6). Rather, lateral collinearity occurs when "*a predictor variable measures the same underlying construct, or a facet of such construct, as a variable to which it points in a model*" (Kock, 2015: p. 6). The FCA computes the Variance Inflation Factor (VIF) for all latent constructs of a model. The VIF provides an index that measures how much of the variance of an estimated regression coefficient is increased because of collinearity. If all VIFs of the latent constructs are equal to or lower than 3.3, the model is considered free from CMB (Kock, 2015). This method will be employed in Chapter 7 when performing the statistical analysis of data.

6.4 OPERATIONALIZATION OF RESEARCH CONSTRUCTS

The fourth step of the systematic research process presented in Figure 6.1 consists of defining the measures for operationalizing the constructs of a proposed theoretical model. While some constructs in social science research, such as a person's age, income, or gender, may be easy to measure, because they are directly observable, other constructs, such as Social Capital and Political Interest, may be considerably harder to gauge, because they cannot be directly and uniquely observed and may have several dimensions (Bryman, 2012). Therefore, concepts indicators must be used. "*An indicator is […] an indirect measure of a concept*" (Bryman, 2012: p. 164) usually artificially coded (i.e., Likert-type items) that can explain only part of the variance of the concept being

measured. For this reason, many theoretical constructs are measured through multiple indicators so to capture much of their variance and touch upon all their dimensions. This research employs multiple indicators in the form of Likert-type items for many of the constructs included in the proposed theoretical framework (Table 6.1). The following Sections focus on the operationalisation of the constructs included in the theoretical framework. For each construct/variable, the corresponding section presents a review of its use in the literature, a specification of its measurement indicators and its suitability for this study.

6.4.1. OPERATIONALISATION OF SOCIAL CAPITAL

This Section presents the main perspectives existing for measuring Social Capital and discusses the method that has been selected for this research.

As with the definitions of Social Capital (Chapter 4, Section 4.3), its measurements are interrelated to the goal of each study. Through an extensive literature review two methodological approaches were identified:

1. The first approach is focused on the structure of social networks (Burt, 1988, 2000; Lin, 2001, 2008), where size, density, quality (strong/weak ties) and frequency of social contacts are considered as the principal aspects for measuring Social Capital. This approach mirrors the theoretical arguments of the "Structural View" of Social Capital and is more concerned with an analysis at the individual rather than collective level (Chapter 4, Section 4.2).
2. The second approach is more concerned with the Cultural Perspective of Social Capital (Chapter 4, Section 4.2). Authors in this tradition consider civic membership, trust, integration and reciprocity as proxies of Social Capital at both individual (Bourdieu, 1986; Coleman, 1990) and collective levels (Ostrom and Ahn, 2003; Putnam, 2000; Woolcock, 1998).

The first approach has been largely criticised since it focuses on measuring social networks' size, density and frequency of contacts, which do not indicate anything about resources' availability and accessibility in a specific network (Fiori, Smith and Antonucci, 2007), nor whether people are willing to use or share such resources

(Obukhova and Lan, 2013), which in turn should imply mechanisms of trust and reciprocity (Coleman 1988; Finsveen and Van Oorschot 2008; Putnam, 2000; Van Der Gaag and Snijders, 2005).

However, also the second approach by itself is not sufficient to provide a clear operationalisation of Social Capital. For instance, the concept of group closure plays a critical role in both Bourdieu's (1986) and Coleman's (1990) conceptualisations of Social Capital. A social structure is closed if all the individuals in a group are connected to each other by some kind of relations. The level of closure is considered to have a positive correlation with the level of Social Capital possessed within the groups. Indeed, closed groups facilitate the creation of strong relations or ties that allow to access information and establish reputation, trust and reciprocity that maximise Social Capital. Accordingly, only strong ties are included in Social Capital (Coleman, 1988; Bourdieu, 1986). However, closed structures prevent the entry of valuables resources like heterogeneous information and innovation that could derive from weak ties (Portes, 1998; Stanton-Salazar and Dornbush, 1995). Putnam (2000) acknowledged this limitation and recognised the importance of week ties by introducing the concept of Bridging Social Capital in his "cultural" analysis. Yet, as Lin (2001) pointed out, Putnam's (2000) conceptualisation is focused on norms of trust and reciprocity which lead to the identification of Social Capital mainly with cultural aspects, neglecting the structural asset of networks which can affect the creation and maintenance of such norms.

To overcome the above limitations, a possible alternative approach, suggested by Williams (2006), is that of considering networks and their structures (strong/weak ties) as agents that facilitate the creation and maintenance of trust and reciprocity that determine access to resources ultimately defining Social Capital. This means that the Social Capital owned by individuals is not the network itself (Structural Perspective). Rather, networks' structures are considered at the basis of the creation of those norms of trust and reciprocity which facilitate people in mobilising their resources (Cultural Perspective). This study follows the latter approach and considers Social Capital as the resources embedded in social relations that can be mobilised on the basis of norms of trust and reciprocity. Hence, this study employs the Internet Social Capital Scale (ISCS) devised by Williams (2006) to operationalise online Bonding and Bridging Social Capital (Figure 6.3).

Figure 6.3. ISCS (Internet Social Capital Scale)

Bonding Subscale

1. There are several people online/offline I trust to help solve my problems.*
2. There is someone online/offline I can turn to for advice about making very important decisions.*
3. There is no one online/offline that I feel comfortable talking to about intimate personal problems. (reversed)*
4. When I feel lonely, there are several people online/offline I can talk to.
5. If I needed an emergency loan of $500, I know someone online/offline I can turn to.*
6. The people I interact with online/offline would put their reputation on the line for me.
7. The people I interact with online/offline would be good job references for me.
8. The people I interact with online/offline would share their last dollar with me.
9. I do not know people online/offline well enough to get them to do anything important. (reversed)
10. The people I interact with online/offline would help me fight an injustice.

Bridging Subscale

1. Interacting with people online/offline makes me interested in things that happen outside of my town.
2. Interacting with people online/offline makes me want to try new things.
3. Interacting with people online/offline makes me interested in what people unlike me are thinking.
4. Talking with people online/offline makes me curious about other places in the world.
5. Interacting with people online/offline makes me feel like part of a larger community.
6. Interacting with people online/offline makes me feel connected to the bigger picture.
7. Interacting with people online/offline reminds me that everyone in the world is connected.
8. I am willing to spend time to support general online/offline community activities.
9. Interacting with people online/offline gives me new people to talk to.
10. Online/Offline, I come in contact with new people all the time.

Source: Williams (2006): p.602.

An outline of Williams' (2006) scale is presented next, to provide more context and specify the reasons for which his approach fits this study.

William (2006) distinguished between two dimensions of Social Capital, namely *Bonding* and *Bridging*, in the offline and online environments.

To measure ***Bonding Social Capital***, Williams (2006) identified 5 criteria: (1) emotional support, (2) access to limited resources, (3) capacity to mobilise solidarity, (4) out-group antagonism and (5) homogeneity. As Putnam (2000) had argued, the Bonding dimension represents an exclusive type of Social Capital since it is mainly associated with networks of like-minded people bonded by kinship, ethic, religion and cultural or ideological ties. Hence, Williams (2006) considered out-group antagonism and

homogeneity as criteria of Bonding Social Capital, linking it to the *resources* accessible in the individual's "strong ties" (Hampton, 2011). This definition closely reflects the Structural Perspective of Social Capital (quality of the tie structure). By including also emotional support in Bonding Social Capital (Items 1, 2, 3 and 4), Williams (2006) attempted to measure trust in others, that is a typical component of the Cultural Perspective of Social Capital and a central element of the definition of Social Capital provided in this study. Furthermore, when considering access to limited resources, Williams (2006) considers not only material resources like money (Item 5) but also symbolic resources like job references and reputation (Items 6 and 7). This fits the discussion over the conceptualisation of Social Capital in this study, which considers both types of resources (see Chapter 4). The remaining items of the Bonding scale (8, 9 and 10) measure the ability of individuals to mobilise solidarity, which is at the basis of the Cultural Perspective of Social Capital.

To measure ***Bridging Social Capital***, Williams (2006) considered 5 criteria: (1) outward looking, (2) contact with a broader range of people, (3) view of oneself as part of a broader group, (4) diffuse reciprocity within a broader community and (5) heterogeneity (as meeting new people). Indeed, Bridging Social Capital is regarded as "inclusive" Social Capital as it bridges across gender, race, geographical space, and ethnicity. It is related to more heterogeneous and diverse groups when compared to the Bonding dimension (Putnam, 2000) and it is characterised by "week ties". For these reasons, in his scale of Bridging Social Capital, Williams (2006) included 'outward looking' items, that is the predisposition to look outside one's group, being more open minded (Items 1, 2, 3 and 4). He also devised items tapping on contacts with a broader range of people (Items 9 and 10) and items measuring heterogeneity which indicates whether people view themselves as part of a broader group (Items 5, 6 and 7). Also, by looking at diffuse reciprocity (Item 8), Williams (2006) addresses the idea stemming from the cultural perspective of Social Capital that a general sense of "*givingness*" (p. 600) would help the exchange of resources within a network. However, this sense of "*givingness*" must be based on reciprocity without immediate gain which means that people must be willing to give to others without expecting something back from them. This concept is in line with the definition of reciprocity provided in this study and with the framework of civic virtue upon which this research is based.

Based on the above discussion, the ISCS measure developed by Williams (2006) fits this study particularly well because (1) the items were created specifically for measuring online Social Capital and (2) it is in line with the definition of Social Capital adopted in this study. Indeed, the ISCS measures resources, trust, and reciprocity, also accounting for the quality of the relationships. These are concepts relevant to both the Structural and the Cultural perspectives of Social Capital.

All the items of Williams' (2006) scale were employed verbatim in this study, except for questions 3 and 9 of the Bonding section (Table 6.2) which were rephrased to eliminate the need for reverse coding and reduce response errors (see Section 6.7).

Table 6.2. Online Bonding Social Capital Indicators and Respective Labels.

Labels Indicators*	Items**
Bond_1	There is someone on Facebook I can turn to for advice about making very important decisions.
Bond_2	There is someone on Facebook that I feel comfortable talking to about intimate personal problems.
Bond_3	When I feel lonely, there are several people on Facebook I can talk to.
Bond_4	If I needed an emergency loan of £ 500, I know someone on Facebook I can turn to.
Bond_5	The people I interact with on Facebook would put their reputation on the line for me.
Bond_6	The people I interact with on Facebook would provide good job references for me.
Bond_7	The people I interact with on Facebook would share their last pound (£) with me.
Bond_8	I know people on Facebook well enough to get them to do something important.
Bond_9	The people I interact with on Facebook would help me fight an injustice.
Bond_10	There are several people on Facebook I trust to help solve my problems.

** Used to identify indicators in Statistical Analysis.*
*** The items were also adapted to tap on Twitter and Facebook and Twitter combined users.*

Source: adapted from Williams (2006).

Table 6.3. Online Bridging Social Capital Indicators and Respective Labels.

Labels Indicators*	Items**
Brid_1	Interacting with people on Facebook makes me interested in things that happen outside of my town.
Brid_2	Interacting with people on Facebook makes me want to try new things.
Brid_3	Interacting with people on Facebook makes me interested in what people unlike me are thinking.
Brid_4	Talking with people on Facebook makes me curious about other places in the world.
Brid_5	Interacting with people on Facebook makes me feel like part of a larger community.
Brid_6	Interacting with people on Facebook makes me feel connected to the bigger picture.
Brid_7	Interacting with people on Facebook reminds me that everyone in the world is connected.
Brid_8	I am willing to spend time to support general Facebook community activities.
Brid_9	Interacting with people on Facebook gives me new people to talk to.
Brid_10	On Facebook, I come in contact with new people all the time.

** Used to identify indicators in Statistical Analysis.*
*** The items were also adapted to tap on Twitter and Facebook and Twitter combined users.*

Source: adapted from Williams (2006).

6.4.2. OPERATIONALISATION OF OFFLINE AND ONLINE POLITICAL PARTICIPATION

Consistently with the definition of Political Participation provided in Chapter 3, this research investigates Political Participation in both the offline and online environments in its conventional and unconventional forms (Ekman and Amna, 2012; Van Deth, 2014).

Offline Political Participation (Off_PP) is operationalised through a scale developed by Gil de Zuniga et al. (2012) for Structural Equation Modeling (SEM) analysis and further used in the SEM context by Gil de Zuniga et al. (2013) and Gil de Zuniga et al. (2014b). In all those studies, the scale yielded good reliability values (respectively Cronbach's α=.82, Cronbach's α=.82 and Cronbach's α=.87). The scale showed sufficient reliability as well as discriminant and convergent validity also in the pilot study conducted for the current research (Section 6.7). Gil de Zuniga et al.'s 11-point scale (Table 6.4) consists of nine items anchored from 0 = "Never" to 10 = "Every

time I could have a chance". Each item concerns a specific offline political activity engaged by the respondents in the past 12 months.

Table 6.4. Offline Political Participation Indicators and Respective Labels.

Labels Indicators*	Items
Off_PP_1	Attended a public hearing, town hall meeting, or city council meeting.
Off_PP_2	Called or sent a letter to an elected public official.
Off_PP_3	Spoken to a public official in person.
Off_PP_4	Posted a political sign, banner, button or bumper sticker.
Off_PP_5	Attended a political rally.
Off_PP_6	Participated in any demonstrations, protests, or marches.
Off_PP_7	Written a letter to a news organisation.
Off_PP_8	Participated in groups that took local actions for social or political reforms.
Off_PP_9	Been involved in public interest groups, political action groups, political clubs, or party committees.
** Used to identify indicators in Statistical Analysis.*	

Source: adapted from Gil de Zuniga et al., 2012.

Consistently with Van Deth's (2014) categorisation of political activities, the scale items tap on both conventional (items 1, 2, 3, 4, and 5) and unconventional (items 6, 7, 8 and 9) forms of Political Participation relating to voluntary activities conducted by citizens, individually or collectively, with the aim to affect the political sphere. Hence, the scale covers all the main theoretical domains of Political Participation provided in the definition.

Because of its employability in SEM analysis, the good level of reliability shown in previous studies and for its alignment to the conceptualisation of Political Participation adopted in this study, the scale of Gil de Zuniga et al. (2012) is considered an appropriate operationalisation of the offline Political Participation variable.

Online Political Participation (On_PP) is operationalised through a scale of six items, concerning how often respondents engage in a series of political activities on the Internet (Table 6.5). The items are measured on eleven points ranging from 0 to 10 where 0 = "Never" and 10 = "Every time I could have a chance". The scale, developed by Gil de Zuniga et al., (2015), was used in a SEM context and showed high reliability (Cronbach's α=.81). Among others, the scale was also employed by Lin and Chiang

(2017) in SEM analysis, showing high reliability (Cronbach's α=.97). Furthermore, the scale was pre-tested for this research through a pilot study and showed adequate internal consistency reliability, and discriminant and convergent validity (Section 6.7). Item On_PP_5 of the original scale was re-worded from "*used a mobile phone to donate money to a campaign or political cause*" to "*donated money online to a campaign or political cause*", reflecting the focus of this study on online Political Participation. This amendment is consistent with other studies employing the same scale in a similar context (e.g., Lin and Chiang, 2017).

Table 6.5. Online Political Participation Indicators and Respective Labels.

Labels Indicators*	Items
On_PP_1	Created an online petition
On_PP_2	Signed a petition online.
On_PP_3	Participated in an online question-and-answer session with a politician or public official.
On_PP_4	Signed up online to volunteer to help with a political cause.
On_PP_5	Donated money online to a campaign or political cause.
On_PP_6	Started a political or cause-related group online.
* *Used to identify indicators in Statistical Analysis.*	

Source: adapted from Gil de Zuniga, Garcia-Perdomo and McGregor (2015)

The items of the On_PP scale include both conventional (items 3, 5 and 6) and unconventional (items 1, 2 and 4) online forms of voluntary political actions as identified by Barrett and Brunton-Smith (2014), Ekman and Amna, 2012 and Van Deth (2014). Hence, the scale is in line with the definition of Political Participation adopted in the current study.

Due to its comprehensiveness, its suitability to SEM analysis, the good level of reliability showed in previous studies and in the pilot study of this thesis, the scale of Online Political Participation devised by Gil de Zuniga et al. (2015) is deemed appropriate for the current study.

6.4.3. OPERATIONALISATION OF MODERATOR VARIABLES

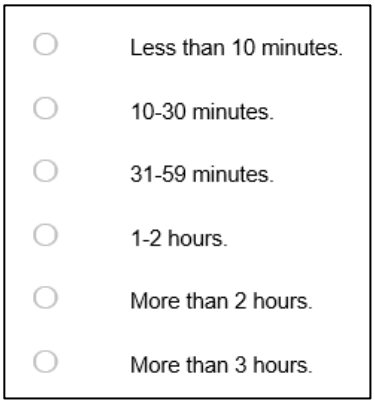
One of the aims of this study is to ascertain the moderating effects of time spent on SNSs, type of SNSs used and combined and not combined use of SNSs on the

relationships between online Bonding and Bridging Social Capital and online and offline Political Participation.

For type of SNSs used and combined and not combined use of SNSs, the operationalisation process is straightforward. Indeed, they are categorical variables, operationalised by asking respondents whether they were Facebook users or Twitter users or whether they used both Facebook and Twitter.

With regards to "time spent on SNSs", one of the operationalisation methods commonly employed by researchers is based on self-reported measures of time spent on the Internet in hours or minutes per day (Becker et al., 2012; Carrier et al., 2009; Ellison et al., 2007; Junco, 2013; Kimbrough, et al., 2014; Padilla-Walker and Coyne, 2011; Pea et al., 2012; Reich et al., 2012; Rosen et al. 2013; Turner and Croucher, 2013). This research employs the same method. However, to help respondents in the process of recalling the amount of time spent online, and consistently with other studies in the field (i.e., Ellison et al., 2007), before asking respondents to indicate the time in hours and minutes spent on the selected SNS, we provided them with categories (Figure 6.4). Indeed, Araujo et al. (2017) argued that it is of crucial importance to help respondents to overcome recall and estimation problems related to media use, for instance, by developing anchors and categories that are targeted at those problems.

Figure 6.4. Fixed Choice Option for Time Spent on SNSs for this Study (Copy)



Source: adapted from Ellison et al. (2007)

6.4.4. OPERATIONALISATION OF CONTROL VARIABLES

According to the literature, a control variable is a variable that has an impact, typically over the dependent variable, that cannot be ignored (Becker, 2005; Becker et al., 2016; Breaugh and Arnold, 2007). However, its theoretical background is usually not explored as a part of the main relationships under investigation in a study. Indeed, the results for control variables are usually not further interpreted (Hair et al. 2017). Yet, their inclusion is believed to strengthen the explanatory power of a conceptual model.

As outlined in Chapter 5, the CET framework proposes that an individual's Political Participation is a result of his/her education, political knowledge, political interest and internal political efficacy. Moreover, empirical studies in the field of political and social engagement provided evidence that age may affect individual levels of Political Participation, together with gender (see Chapter 5). Hence, all the above variables have been controlled in this study. The following sections deal with the operationalisation of those control variables.

6.4.4.1. OPERATIONALISATION OF POLITICAL INTEREST

Extant literature defined and operationalised Political Interest (PInt) in different ways (see Sigel and Hoskin, 1981; Bennett, 1984; Gabriel, 1986; Van Deth, 1990; Zaller, 1992). In the current study, political interest is defined as the "*degree to which politics arouses a citizen's curiosity*" (Van Deth 1990: p. 278). This definition fits this study particularly well. Indeed, according to Van Deth (1990) political interest is not a form of political behaviour. This is consistent with the CET assumption that Political Interest is part of the Cognitive dimension of people and cannot represent a behaviour, rather it is an individual intrinsic factor which can shape a behavioural pattern.

In line with this definition, is the scale devised by Brady et al. (1995) who operationalised Political Interest through 3 averaged items anchored from 1 = "Strongly disagree" to 7 = "Strongly agree" (Table 6.6).

The scale has been widely used in previous research (e.g., Brady et al., 1999; Dawes et al., 2011; Oliver, 2000 and Scheufele, 2002) and has always shown Cronbach's alpha above 0.7. The scale was pre-tested through the pilot study and displayed good levels of internal reliability, discriminant and convergent validity (Section 6.7). It was

also used in the SEM analysis context by Bell et al. (2009), Carter (2006), Fowler et al. (2008) and Gastil and Xenos (2010). For all these reasons, the scale of Brady et al. (1995) was deemed appropriate for the current study.

Table 6.6. Political Interest Indicators and Respective Labels.

Labels Indicators*	Items
PInt_1	In regards to my local community, I am interested in local community politics and local community affairs.
PInt_2	I am interested in national politics and national affairs.
PInt_3	In general, I am interested in politics.
** Used to identify indicators in Statistical Analysis.*	

Source: adapted from Brady et al. (1995).

6.4.4.2. OPERATIONALISATION OF INTERNAL POLITICAL EFFICACY

Because of the CET's emphasis on individual intrinsic factors, many studies have paid attention to the notion of Internal Political Self-Efficacy, which is here defined as: "*individuals' self-perceptions that they are capable of understanding politics and competent enough to participate in political acts*" (Miller et al., 1980: p. 253). It consists of a self-appraisal of political competence and capabilities linked to the individual's belief that he/she can be successful in performing a specific political behaviour (Gil de Zuniga et al., 2012; Jung et al., 2011; Velenzuela et al., 2012).

Internal Political Efficacy (PEff) is operationalised with Niemi et al.'s (1991) four-items seven-point scale anchored from 1 = "Strongly disagree" to 7 = "Strongly Agree". (Table 6.7). The scale has been widely employed in previous studies using SEM analysis techniques either in its original form or slightly adapted to the researchers' aims (e.g., Anim et al., 2019; Ardèvol-Abreu et al., 2019; Park and Karan 2014; Ritter, 2008; Warner, 2018; Yang and DeHart, 2016). In all those studies, the scale showed good reliability and validity. The scale was pre-tested through the pilot study and displayed good levels of internal consistency reliability, discriminant and convergent validity (Section 6.7). Moreover, as Niemi et al. (1991) argued, the items of the scale touch upon an individual's self-perceptions of being capable of understanding politics and feeling competent enough to participate. Hence, the scale is a good operationalisation of the definition provided by Miller et al. (1980).

Table 6.7. Political Efficacy Scale Indicators and Respective Labels.

Labels Indicators*	Items
PEffic_1	I consider myself to be well qualified to participate in politics.
PEffic_2	I feel I have a pretty good understanding of the important political issues facing our country.
PEffic_3	I feel that I could do as good a job in public office as most other people.
PEffic_4	I think that I am better informed about politics and government than most people

** Used to identify indicators in Statistical Analysis.*

Source: adapted from Niemi et al. (1991).

6.4.4.3. OPERATIONALISATION OF POLITICAL KNOWLEDGE

According to the CET framework, politically knowledgeable citizens are more likely to participate in politics (Delli Carpini and Keeter, 1996; Galston, 2001). Hence, Political Knowledge must be controlled for, in studies focusing on Political Participation.

In this study, Political Knowledge is defined as "*the range of factual information about politics that is stored in long-term memory*" (Delli Carpini and Keeter, 1996, p. 10). In line with this definition, the Political Knowledge construct (Pknow) was operationalised as the additive score of the responses to a battery of seven *factual* political questions to which respondents answered either "True", or "False" or "Do not Know" (Table 6.8). Respondents scored one point for each correct answer and zero for each wrong or "do not know" answer. Points were added up to create an index of Political Knowledge ranging from zero to seven (Larcinese, 2007, 2009). Notably, PLS supports single-item constructs (Hair et al., 2011). Also, additive scoring methods as part of an index or scale of multiple items are considered to yield good content validity and measures reliability (Rossiter, 2002, 2008).

This measure has been employed in several studies concerned with "*factual*" political knowledge (i.e., British Election Study, 1997; Chan and Clayton, 2006; Larcinese, 2007, 2009; Sturgis et al., 2008). The items of the scale touch upon the most important categories identified by Delli Carpini and Keeter (1996: p. 65) as the governing principles of what people should know about politics and that are "the rules of the game" (questions 2, 3, 4, 5, 6, and 7) and "people and parties" (question 1).

Table 6.8. Political Knowledge Questions Battery.

Labels Indicators*	Items
Quest_1	Margaret Thatcher was a Conservative prime minister.
Quest_2	The number of members of parliament is about 100.
Quest_3	The longest time allowed between general elections is four years.
Quest_4	Britain's electoral system is based on proportional representation.
Quest_5	MPs from different parties are on parliamentary committees.
Quest_6	Britain has separate elections for the European Parliament and the British Parliament.
Quest_7	No one may stand for parliament unless they pay a deposit.
** Used to identify indicators in Statistical Analysis.*	

Source: Adapted from British Election Study (1997) and Larcinese (2007, 2009).

Given that the above scale is in line with the conceptualisation provided in this research and since it has been employed in several studies concerned with the *factual* level of political knowledge, the scale is deemed appropriate for this study.

6.4.4.4. OPERATIONALISATION OF SOCIO-DEMOGRAPHIC VARIABLES: AGE, EDUCATION AND GENDER

As mentioned in Chapter 5, socio-demographic variables like age, education and gender may affect levels of Political Participation (Gil De Zuniga et al., 2012; Melo and Stockemer, 2014; Quintelier, 2007; Skoric et al., 2009; Velenzuela et al., 2009).

In this study, age is measured with an open-ended question asking: "Please, indicate what was your age on your last birthday (in years)". This formulation has been widely employed in previous studies related to Political Participation and media use (see among the others Gil de Zuniga et al., 2012; Jung et al., 2011; McCluskey et al., 2004).

The operationalisation of educational level included five options: [1] "Less than high school", [2] "High School", [3] "Bachelor's degree", [4] "Master's degree", [5] "Doctoral degree". To facilitate the analysis and interpretation of results (Field, 2013), the variable Education was dummy coded with 2 categories where 0 = "Low Education" comprised options one and two and 1 = "High Education" comprised options three to five.

To operationalise Gender, respondents had to indicate whether they were Males, Females or whether they preferred not to say. No respondents selected the last option. A dummy coded variable was created, where 0 = “Males” and 1 = “Females”.

6.5. STATISTICAL METHODS OF ANALYSIS

Following the systematic approach to the research process reported in Figure 6.1, once the appropriate research strategy and design, instrument and related measures have been discussed, researchers should address the appropriateness of the statistical method of analysis chosen for answering the research questions.

This study adopts the Structural Equation Model (SEM) with the Variance Structure Analysis technique (PLS) to answer research questions Q1, Q2 and Q3. A series of parametric and non-parametric ANOVAs analysis (Table 6.9) address research questions Q4 and Q5, respectively. Reasons and justifications for the chosen techniques of analysis are discussed in the following Sections.

Table 6.9. Research Questions and Statistical Techniques of Analysis.

Research questions	Statistical aims	Statistical techniques	Software
Q1. Does the type of SNSs used (**Type_SNSs_Used**) moderate the relationships between Online Bridging (**Brid_SC**) and Online Bonding (**Bond_SC**) Social Capital with Online and Offline Political Participation **(On_PP** and **Off_PP)**? To what extent?	Reveal the significance of the moderating effects of the type of SNSs employed on the relationship between Online Bonding/Bridging Social Capital and Online/Offline Political Participation.	Multi-Group analysis (MGA) in SEM-PLS through pairwise comparison of Permutation tests	SmartPLS version 3.2.8
Q2. Does the intensity of Use of SNSs (**Int_SNS_Use**) moderate the relationships between Online Bridging (**Brid_SC**) and Online Bonding (**Bond_SC**) Social Capital with Online and Offline Political Participation (**On_PP** and **Off_PP**)? To what extent?	Reveal the significance of the moderating effect of intensity of SNSs used on the relationship between Online Bonding/Bridging Social Capital and Online/Offline Political Participation.	Moderation Analysis through the Two-stage Approach in SEM-PLS	SmartPLS version 3.2.8
Q3. Does the combined and not combined use of SNSs (**Comb_SNS_Use**) moderate the relationships between Online Bridging (**Brid_SC**) and Online Bonding (**Bond_SC**) Social Capital with Online and Offline Political Participation (**On_PP** and **Off_PP**)? To what extent?	Reveal the significance of the moderating effects of the combined use of SNSs employed on the relationship between Online Bonding/Bridging Social Capital and Online/Offline Political Participation.	Multi-Group analysis (MGA) in SEM-PLS through pairwise comparison of Permutation tests	SmartPLS version 3.2.8
Q4. To what extent do the amounts of Online Bridging (**Brid_SC**) and Bonding (**Bond_SC**) Social Capital differ across different types of SNSs employed (**Type_SNSs_Used**) and across different levels of Intensity of SNSs used (**Int_SNS_Use**)?	Ascertain whether there are any statistically significant differences in the amount of Social Capital owned by different users of different SNSs, who show different levels of intensity of SNSs use.	Two-way ANOVA	SPSS version 24

Research questions	Statistical aims	Statistical techniques	Software
Q5. To what extent do the amounts of Online and Offline Political Participation (**On_PP** and **Off_PP**) differ across different types of SNSs employed (**Type_SNSs_Used**) and across different levels of Intensity of SNSs used (**Int_SNS_Use**)?	Ascertain whether there are any statistically significant differences in the amount of Political Participation reported by different users of different SNSs, who show different levels of intensity of SNSs use.	Two-way non-parametric ANOVA with Aligned Rank Test (ART)	R software

6.5.1. RESEARCH QUESTIONS Q1, Q2 AND Q3: THE USE OF PLS-SEM

Research questions Q1, Q2 and Q3 will be addressed through Structural Equation Modeling (SEM) with the Variance Structure Analysis technique using the SmartPLS software version 3.2.8. There are three main reasons why SEM analysis is considered appropriate for the purpose of this research in comparison to other multivariate techniques, such as multiple regression analysis.

First, SEM analysis allows to estimate the impact of both categorical and continuous moderating variables within a single model (Hair et al., 2017) and on multiple relationships at the same time, allowing for more complex Modeling like moderation which is one of the aims of this study (Hair et al., 2018). This provides a more realistic reflection of theory but at the same time allows for simplified testing procedures.

Second, SEM analysis allows to test models which include latent constructs and their relationships using multiple indicators (MacKenzie et al., 2005) which allows for more precise specification of results, as in this way reliance is not placed on a single response (Hair et al., 2017). Additionally, SEM technique enable the establishment of the convergent and discriminant validity of measures.

Thirdly, SEM allows to test the theoretical structure of constructs for non-random measurement error that is the difference between a measured quantity and its true value associated with factors that systematically affect the measurement of a variable across

the sample (Bollen, 1989; Hair et al., 2006; Steenkamp and van Trijp, 1991; Schumaker and Lomax, 2004). This systematic error could be due to: **(**1**)** items characteristics, like when a measure of a construct is omitted by error or to **(**2) respondents' characteristics, like when respondents are more inclined to agree with a specific question item because of personal biases (Byrne, 2012).

Considering the advantages discussed above, SEM is widely regarded as the key methodological approach to theory development and testing (Anderson and Gerbing, 1988; Deshon, 1997; Hair et al., 2017; Steenkamp and Trijp, 1991) and fits the purpose of this research.

There are two main approaches to SEM analysis: Covariance Based analysis (CB) and Variance Based approach, known as Partial Least Squares (PLS), (Gefen et al., 2000; Hair et al., 2012). CB-SEM techniques estimate path coefficients and loadings by minimizing the difference between observed and predicted variance–covariance matrices. The observed variance–covariance matrix is calculated by the covariance structure of the Manifest variables. PLS is a component-based SEM technique which estimates parameters similar to the principal component analysis with a multiple regression approach. Specifically, PLS analysis operates a series of ordinal least squares (OLS) interdependent regressions (Fornell and Bookstein, 1982). In this research, the proposed model will be tested using PLS analysis. Following Hair et al. (2017), this choice was made with reference to some aspects of this study that can be better handled by PLS-SEM. These include:

1. The complexity of the proposed model.
2. The small sample size.
3. The type of data used.
4. The non-normal distribution of data.
5. The need to use latent variable scores in subsequent analyses.

Extant literature suggests that the PLS technique yields more reliable results compared to CB when dealing with complex models which include also indirect and moderating effects (Hair et al., 2018). A model can be considered complex when it has 10 or more constructs and/or 50 or more items (Akter et al., 2017; Chin 2010). The model

of this study has 10 constructs that increase to 14 when testing for the moderation of "Intensity of SNSs Use" (research question Q2), because of the inclusion of the interaction terms created for the moderation analysis though the two-stage approach (see Section 6.5.1.5). Hence, following Hair et al. (2017), PLS must be preferred to CB in this study.

Moreover, PLS-SEM was shown to reliably estimate a model with many latent variables and indicators even with a small sample size, for all those situations where CB-SEM provides inadmissible solutions (Chin et al., 2008; Henseler et al., 2014). As shown in more details in Section 6.6.3 and following the rule of thumb to determine the adequate sample size for PLS-SEM analysis, this research employs a smaller sample of the one required for CB analysis due to limited amount of financial resources.

Concerning the type of data, PLS has been shown to be more reliable than CB when Likert type measures and single items constructs are employed (Fornell and Bookstein 1982; Haenlein and Kaplan 2004; Reinartz et al., 2009). In this study, most of the indicators of the constructs use Likert-type items (Section 6.4) and some of the constructs (i.e., Political Knowledge and the interaction term created for the moderation analysis through the two-stage approach - Section 6.4.4.3) have just one indicator.

Moreover, when the data is not normally distributed, PLS-SEM must be preferred to CB-SEM analysis because it employs non-parametric techniques of analysis like bootstrapping or permutation procedures (Hair et al., 2017; Vinzi at al., 2010; Wong, 2010). As reported in Chapter 7, most of the indicators and variables of this study are non-normally distributed. Hence, PLS-SEM should be preferred to CB-SEM as method of analysis.

Moreover, when one of the aims of the study is to use latent variable scores in subsequent analyses, PLS should be preferred to CB analysis. Indeed, a final aspect of this study is to check whether the Social Capital and the Political Participation displayed by respondents differ on the basis of the type of SNSs employed and their usage level. This can be checked by analysing the different (unstandardised) Latent Variable Scores of each group of SNSs user (i.e., Facebook and Twitter) based on the time spent on those SNSs. The latent variable scores are automatically created when using the PLS algorithm but not in CB analysis.

For all the reasons stated above, PLS-SEM was chosen as the analytical technique to answer the proposed research questions of this study. Following best practice guidelines on how to conduct PLS-SEM (e.g., Anderson and Gerbing, 1988; Bagozzi and Yi, 2012; Chin, 1998; Hair et al., 2017), the analysis was performed in two stages. The first step involves defining and analysing the measurement model to establish the reliability and validity of the measures, while the second step involves testing the structural model, which allows to delineate relationships among latent constructs. The following Sections discuss the two-steps approach and provide the metrics employed to assess and validate the proposed model of this study at each stage.

6.5.1.1. DEFINING AND ASSESSING THE MEASUREMENT MODEL

The first stage of the PLS-SEM two-step approach consists of defining and assessing the measurement model. A measurement model specifies the relationship between the observable indicators and each latent construct (Hair et al., 2017). The literature distinguishes between reflective and formative measurement models (Figure 6.5)

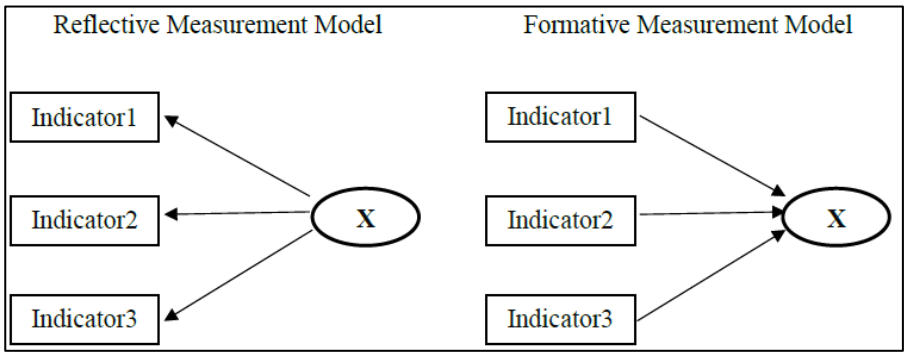
In reflective measurement models, the indicators are considered the effects of a latent construct (Chin, 1998), meaning that the causality is from the construct to its measures. This implies that all indicators of a constructs should be highly and positively correlated because they stem from the same domain and therefore are interchangeable (Hair et al., 2017).

With respect to formative measurement models, the causality of the relationship goes from the indicators to the latent constructs that they measure. Therefore, the indicators *form* the constructs and represent different aspects of it. This implies that the formative indicators may not correlate or may even be inversely related and are not interchangeable (Bollen, 1984).

Following Hair et al. (2017), the decisions on how to model the constructs and its indicators was taken considering how the constructs were modelled in previous studies and by looking at their conceptualisation in this thesis. In addition, a pre-test of the instruments through a pilot study to check validity and reliability of the indicators and their level of correlation was performed (Section 6.7). Moreover, a Confirmatory Tetrad Analysis in PLS-SEM (CTA-PLS) was conducted to empirically substantiate the

specification of measurement models (Hair et al., 2017). The CTA-PLS "*relies on the concept of tetrads that describe the difference of the product of one pair of covariances and the product of another pair of covariances*" (Hair et al., 2019: p. 14). The CTA-PLS analyses only "Non-Redundant Tetrads".

Figure 6.5. Reflective Measurement Models Vs Formative Measurement Models Operationalisation.



Source: adapted from Hair et al. (2017).

Redundancy exists when a tetrad can be represented by two other tetrads. In a reflective measurement model, tetrads are expected to have a value of zero and vanish because reflective indicators should represent one specific construct equally well, since they are assumed to stem from the same domain (Nunnally and Bernstein, 1994). The CTA-PLS draws on the bootstrapping procedure and calculates the bias-corrected Bonferroni-adjusted confidence intervals. If the confidence interval includes zero, then the tetrad is not significantly different from zero (the tetrad vanishes) and the model can be specified as reflective. Conversely, the model should be modelled as formative. However, the CTA-PLS can be performed only for constructs that have four or more indicators. Hence, the Political Interest construct that has three indicators has not been included in this kind of empirical analysis. However, whenever the above procedure cannot be implemented, Hair et al. (2017) provide some general guidelines summarised in Table 6.10 to help the researcher decide whether to measure a construct in a reflective or formative mode.

This study adopts reflective measurements for all the latent constructs measured through multiple indicators. In particular, the ISCS devised by Williams (2006) and used

in this study to operationalise Bond_SC and Brid_SC has been employed in previous research in a reflective manner (see among the others Alves et al., 2016 and Liu et al., 2014). Williams (2006) himself conceptualises Social Capital as the element which causes and increases trust, reciprocity and emotional support. These are all aspects measured through the indicators of the scale, implying a causal direction from the construct to its indicators. Moreover, the scale was pre-tested through a pilot study and a CTA-PLS was carried out which confirmed the reflective measurement specification of Bond_SC and Brid_SC. Indeed, all the tetrad reported in Table 6.11 vanished since all the 90% bias-corrected Bonferroni-adjusted confidence intervals of the non-redundant tetrad contain the 0. To carry out the CTA-PLS, procedure and settings suggested by Hair et al. (2018) with the SmartPLS software 3.2.8 have been applied (see Appendix K). All the other CTA-PLSs performed during the pilot study for the remaining constructs are provided in Appendix J.

Table 6.10. General Guidelines to Choose the Measurement Model Mode.

Criterion	Decision	Reference
Causal priority between the indicator and the construct	• From the construct to the indicators: reflective • From the indicators to the construct: formative	Diamantopoulos and Winklhofer (2001)
Is the construct a trait explaining the indicators or rather a combination of the indicators?	• If trait: reflective • If combination: formative	Fornell and Bookstein (1982)
Do the indicators represent consequences or causes of the construct?	• If consequences: reflective • If causes: formative	Rossiter (2002)
Is it necessarily true that if the assessment of the trait changes, all items will change in a similar manner (assuming they are equally coded)?	• If yes: reflective • If no: formative	Chin (1998)
Are the items mutually interchangeable?	• If yes: reflective • If no: formative	Jarvis, MacKenzie, and Podsakoff (2003)

Source: Hair et al. (2017: p 52).

Table 6.11. Bias-Corrected and Bonferroni-Adjusted Confidence Intervals of the CTA-PLS analysis for Bond_SC of the Facebook Users Only Sample (n = 101).

CTA – Bond_SC Non-Redundant Tetrad	CI Low adj.	CI Up adj.	Tetrad Vanish
1: Bond_1,Bond_10,Bond_2,Bond_3	-2.671	0.744	Yes
2: Bond_1,Bond_10,Bond_3,Bond_2	-1.506	1.643	Yes
4: Bond_1,Bond_10,Bond_2,Bond_4	-2.476	0.695	Yes
6: Bond_1,Bond_2,Bond_4,Bond_10	-1.922	1.698	Yes
7: Bond_1,Bond_10,Bond_2,Bond_5	-2.044	0.111	Yes
10: Bond_1,Bond_10,Bond_2,Bond_6	-2.280	0.244	Yes
13: Bond_1,Bond_10,Bond_2,Bond_7	-2.460	0.370	Yes
17: Bond_1,Bond_10,Bond_8,Bond_2	-2.290	0.937	Yes
20: Bond_1,Bond_10,Bond_9,Bond_2	-1.514	0.581	Yes
29: Bond_1,Bond_10,Bond_6,Bond_3	-1.678	1.447	Yes
31: Bond_1,Bond_10,Bond_3,Bond_7	-1.533	1.238	Yes
35: Bond_1,Bond_10,Bond_8,Bond_3	-2.459	1.310	Yes
41: Bond_1,Bond_10,Bond_5,Bond_4	-1.146	1.323	Yes
43: Bond_1,Bond_10,Bond_4,Bond_6	-1.253	2.086	Yes
47: Bond_1,Bond_10,Bond_7,Bond_4	-0.754	2.367	Yes
50: Bond_1,Bond_10,Bond_8,Bond_4	-0.953	1.941	Yes
60: Bond_1,Bond_5,Bond_7,Bond_10	-1.394	1.207	Yes
64: Bond_1,Bond_10,Bond_5,Bond_9	-1.208	1.594	Yes
66: Bond_1,Bond_5,Bond_9,Bond_10	-0.404	1.781	Yes
71: Bond_1,Bond_10,Bond_8,Bond_6	-1.086	2.373	Yes
80: Bond_1,Bond_10,Bond_9,Bond_7	-0.136	2.324	Yes
91: Bond_1,Bond_2,Bond_3,Bond_6	-0.504	3.044	Yes
120: Bond_1,Bond_5,Bond_6,Bond_2	-0.652	1.187	Yes
169: Bond_1,Bond_3,Bond_5,Bond_8	-0.896	1.826	Yes
182: Bond_1,Bond_3,Bond_9,Bond_6	-0.407	2.368	Yes
205: Bond_1,Bond_4,Bond_6,Bond_7	-0.995	2.139	Yes
233: Bond_1,Bond_5,Bond_8,Bond_7	-1.737	0.671	Yes
236: Bond_1,Bond_5,Bond_9,Bond_7	-0.833	1.573	Yes
248: Bond_1,Bond_6,Bond_9,Bond_8	-1.133	1.544	Yes
281: Bond_10,Bond_2,Bond_8,Bond_4	-0.866	2.823	Yes
324: Bond_10,Bond_4,Bond_7,Bond_3	-1.570	1.147	Yes
358: Bond_10,Bond_3,Bond_8,Bond_9	-0.502	2.192	Yes
395: Bond_10,Bond_5,Bond_8,Bond_6	-1.123	1.631	Yes
434: Bond_2,Bond_3,Bond_9,Bond_4	-0.941	2.012	Yes
526: Bond_3,Bond_4,Bond_5,Bond_6	-1.589	1.497	Yes

The six-item Online Political Participation scale, adopted from Gil de Zuniga et al. (2015) was originally devised for the SEM context and has been employed (among others) by Lin and Chiang (2017), with a reflective measurement specification. Offline Political Participation was operationalised through the nine-item scale devised by Gil de Zuniga et al. (2012) for SEM analysis and further used in the SEM context by Gil de Zuniga et al. (2013) and Gil de Zuniga et al. (2014b). Both scales were pre-tested through a pilot study and CTA-PLS was performed which confirmed the reflective measurement specification of the two constructs (Appendix J).

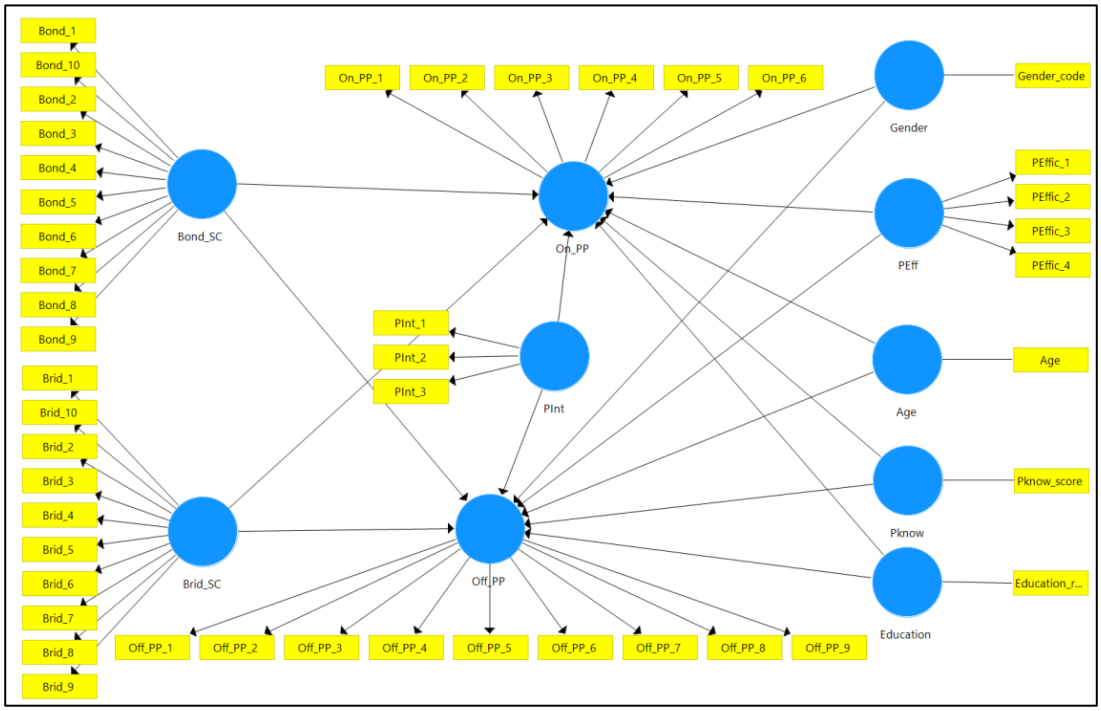
Political Interest (PInt)was measured through the scale devised by Brady et al. (1995) and employed in CB-SEM analysis by Bell et al. (2009), Carter (2006), Fowler et al. (2008) and Gastil and Xenos (2010), always in a reflective manner. The scale was tested through a CTA-PLS during the pilot study which substantiated the reflective measurement specification of PInt.

Niemi et al.'s (1991) Political Efficacy four-item scale adopted in this study has been employed in numerous previous studies using SEM (e.g., Anim et al., 2019; Ardèvol-Abreu et al., 2019; Park and Karan 2014; Ritter, 2008; Warner, 2018; Yang and DeHart, 2016). Park and Karan (2014), who used PLS technique and SmartPLS software, modelled the scale as reflective. Moreover, this study's conceptualisation of Political Efficacy as the "*individuals' self-perceptions that they are capable of understanding politics and competent enough to participate in political acts*" (Miller et al., 1980; p. 253) implies that the construct is a trait explaining the indicators, in line with reflective measurement specifications. A CTA-PLS analysis performed for the pilot study empirically confirmed the reflective specification of PEff (Appendix J).

All other variables included in the model are measured either at the categorical level or through a single item and therefore do not require any reflective/formative specification. The general reflective measurement model is reported as displayed in SmartPLS in Figure 6.6.

Once the measurement model has been specified it must be assessed and validated in terms of reliability and validity. The next Section deals with this issue.

Figure 6.6. General Measurement Model.



Note: the moderator variables "Type of SNSs Used" and "Combined/not-Combined Use of SNSs" are not included in the model as they will be used as grouping variables to allow for the comparison of the proposed model across different groups to answer research questions Q1 and Q3. Also, "Intensity of SNS Used" will be successively included as interaction term in moderation analysis to answer research question Q2

ASSESSING THE MEASUREMENT MODEL

Following Hair et al. (2017), reflective measurement models must be assessed with respect to their internal consistency reliability, convergent and discriminant validity.

Internal consistency reliability refers the degree to which all the indicators appointed to measure the same construct are interrelated (Hair et al., 2017). Following best practices in PLS-SEM, the internal consistency reliability is assessed using Cronbach's Alpha (CA) and Composite Reliability (CR) (Hair et al., 2017; Nunally and Bernstein 1994). CA yields an estimate of the reliability based on the inter-correlations of the indicator variables of a construct. However, CA tends to inflate as the number of scale items increases (Henseler et al., 2009). For this reason, researchers called for the use of a more robust indicator like the CR which provides the shared variance among a set of indicators measuring an underlying construct (Hair et al. 2017). Hair et al. (2017: p.112) suggest that values of CA and CR above 0.7 are satisfactory.

Convergent validity is the extent to which an indicator correlates positively with other indicators and share a high proportion of the variance of a construct. To evaluate convergent validity the outer loadings (OLs), the communality of the indicators and the average variance extracted (AVE) are employed (Hair et al., 2017).

The OLs refer to the correlation between an indicator variable and the theoretical construct it represents (Chin 1998). A common rule of thumb is that the standardised OLs should be 0.6 or higher (Hair et al., 2017). Following Hair et al. (2017), the communality of the indicators is computed as the square of a standardized indicator's outer loading which specifies how much of the variation in an item is explained by the construct. An established rule of thumb is that a latent variable should explain at least 50% of each indicator's variance (Hair et al., 2017: p. 113). The AVE measures the amount of explained variance that a construct obtains from its indicators relative to the amount of variance due to measurement errors (Fornell and Larcker, 1981). As a rule of thumb, AVE should be higher than 0.5 (Henseler et al., 2009).

Discriminant Validity is "*the extent to which a construct is truly distinct from other constructs by empirical standards*" (Hair et al., 2017: p. 115). Following best practices in PLS-SEM, this research employs several tests to empirically assess discriminant validity (Henseler et al., 2015).

First, the Cross Loadings are assessed to ascertain whether each indicator's loading with its associated latent construct is higher than its loadings with all the other constructs (Chin 1998). In that case, discriminant validity is established at the indicator level. Second, the Fornell–Larcker criterion (Fornell and Larcker, 1981) is employed to ascertain if a latent construct shares more variance with its assigned indicators than with another construct. Accordingly, the AVE of each latent construct should be greater than the latent construct's highest squared correlation with any other latent variable. Lastly, Henseler et al. (2015) suggest using the heterotrait-monotrait ratio (HTMT) of indicators correlations to estimate what the true correlation between two constructs would be if they were perfectly measured. Henseler et al. (2015: p. 121) suggest that if the HTMT value is below 0.90, discriminant validity has been established between a given pair of reflective constructs. Furthermore, the HTMT can serve as the basis of a statistical discriminant validity test carried out through the bootstrapping procedure to derive a

distribution of the HTMT statistic assuming a two-tailed 95% confidence interval level and generated using 5000 subsamples (Hair et al., 2017). As a rule of thumb, discriminant validity is established, if the HTMT confidence intervals do not contain the value 1.

All the above metrics will be provided by the SmartPLS software 3.2.8 when running the PLS-SEM algorithm. If the measurement model does not meet the indicated thresholds, some modifications can be made to fit the guidelines provided as reported in Table 6.12.

Table 6.12. Measurement Model Assessment Problems and Solutions.

Problem	**Possible Solutions**	**Source**
Outer loading between .40 and .70	Remove indicator only if deletion leads to an increase of either the CR or the AVE.	Hair et al. (2017)
Outer loadings < .40	Always remove item from the model unless deletion jeopardise the content validity of the construct.	Hair et al. (2017, 2018)
Indicators Communality < .5	Accepted if removing indicator does not lead to an increase of CR and AVE or if deletion compromise content validity.	Hair et al. (2017)
AVE < .5	Option 1: if CR > 0.6, the convergent validity can be still considered adequate.	Fornell and Larcker, 1981. Lam, 2012. Malhotra and Dash, 2011.
	Option 2: check VIF to see if multicollinearity is an issue of the model and consider combining high correlated constructs into second order constructs.	Hair et al. (2010)
	Option 3: remove the problematic construct or the items with low loading values if theory support it and if face validity is not jeopardised.	
HTMT > .90	Option 1: delete items that shows low correlations with other items of the same construct.	Hair et al. (2017)
	Option 2: remove those items that are strongly correlated with other items in different constructs.	
	Option 3: merge the constructs that are strongly correlated if measurement theory support this step.	

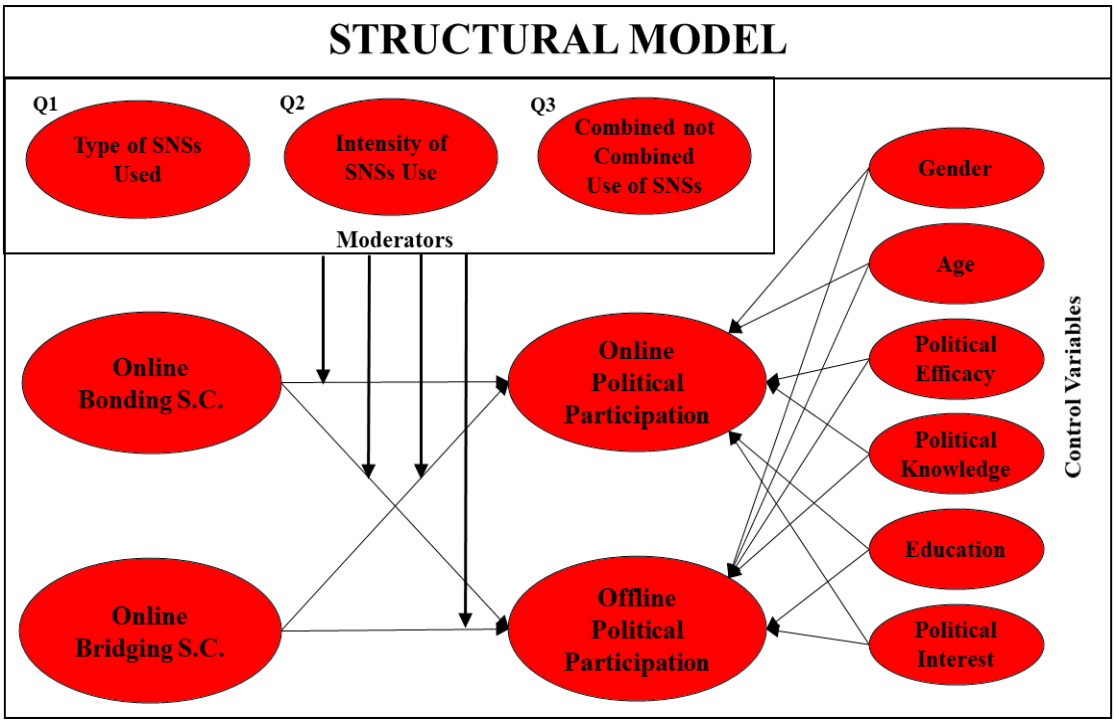
Source: see references in table.

Once the measurement model is assessed, the next step of PLS-SEM analysis involves defining and assessing the structural model (Hair et al., 2017). The next two Sections deal with this second step.

6.5.1.2. DEFINING AND ASSESSING THE STRUCTURAL MODEL

The structural (inner) model of this research stems from the theoretical frameworks of the Resource Mobilisation Theory applied within the context of Social Capital and Political Participation as discussed in Chapter 5 and which is represented in Figure 6.7. However, it must be highlighted that for each research question Q1, Q2 and Q3 separate structural models will be provided, according to the type of moderation analysis performed (see Chapter 7). Indeed, when multiple moderators are included in the structural model, Hair et al. (2013) suggest considering one moderator at a time to maintain interpretability of the results.

Figure 6.7. General Structural Model.



ASSESSING THE STRUCTURAL MODEL

Following Hair et al. (2017), assessing the structural model means to determine the predictive capability and accuracy of the model with respect to the endogenous

variables and ascertain the magnitude and significance of the relationships between constructs. Accordingly, several criteria were employed to assess the inner models of this study.

Firstly, the Variance Inflation Factor (VIF) which indicates whether collinearity exists between variables (multicollinearity) was assessed. Collinearity would increase variables' standard errors affecting the ability to spot any significant effects of the path coefficients. As a rule of thumb, if VIF coefficients are below 5.0, the model is considered free of multi-collinearity issues.

Then, the standardised values of the path coefficient between the latent variables were evaluated with respect to their: (1) algebraic sign (positive/negative), (2) magnitude (the closer to +1 or -1 the stronger the relationship), and (3) significance. To ascertain the significance of the path coefficients, this study relies on the bootstrapping procedure suggested by Hair et al. (2017) that generates confidence intervals (CI) for each path estimate through 5000 random samples assuming a 95% level of confidence. If a path coefficient CI does not include zero, we can assume that a significant effect exists. Following Hair et al.'s (2017) recommendations, this study employs the Bias-Corrected and accelerated Confidence Intervals (BCa) because the model is relatively complex and the data is critically skewed (see Chapter 7).

To further strengthen confidence in the results and control for type II error, we ascertained whether any non-significant effects were due to the lack of statistical power (false negative) conducting post-hoc power tests (1-β) as a function of significance level α, sample size, and variables' effect size f^2 using the G*Power 3.1.9 software (Faul et al., 2007, 2009). The recommended statistical power value is 0.80 or higher (Cohen, 1988).

Furthermore, the R^2 or coefficient of determination was assessed to estimate a latent variable explained variance to its total variance (Hair et al., 2017: p. 198). The R^2 value ranges from 0 to 1, with higher levels indicating greater predictive accuracy. Hair et al. (2017) suggest referring to the appropriate research discipline and practices to establish which R^2 values can be considered acceptable in any study. In particular, Sarstedt and Mooi (2019) pinpointed that in cross-sectional designs like the one of this thesis, values of 0.30 are common and therefore "*R^2 values of 0.50, 0.30, and 0.10 can, as a rough rule of thumb, be respectively described as substantial, moderate, and weak*"

(p. 229). However, Rovai et al. (2013) and Tokunaga (2018) claim that Cohen's (1988) R^2 thresholds of 0.02 (weak) 0.13 (moderate) and 0.26 (substantial) are an accepted rule of thumb, in social and behavioural research. Nonetheless, there is apparent consensus among researchers that the values of R^2 should be sufficiently high (at least 0.10) for the model to have a minimum level of explanatory power (Falk and Miller, 1992). Provided that this threshold is above the minimum value of R^2 suggested by Cohen (1988), this research adopted the rule of thumb suggested by Sarstedt and Mooi (2019) and supported the R^2 with a measure of precision coming from Ohtani (2000) and Streukens and Leroi-Werelds (2016). They proposed to construct BCa CI around the estimated R^2 value to formally assess whether an endogenous construct's R^2 value is significantly different from zero. If the *p* value of the bootstrap distribution of the observed value of R^2 is below 0.05 level of significance, then the obtained R^2 is significantly different from 0 and the model has significant explanatory power. The bootstrap procedure is preferred to other test of significance like the "*F-test* of significant deviation from zero" because it does not rely on distributional assumption of normality. Thus, it is considered adequate for this research. BCa Bootstrap confidence intervals are obtained in SmartPLS through the bootstrapping procedure suggested by Hair et al. (2017).

However, according to Hair et al. (2017), the R^2 is not a reliable measure when the aim is to compare and select different models according to their predictive accuracy (in this thesis we aim to compare moderated and non-moderated relationships). Indeed, the R^2 coefficient increases with the number of variables used. Therefore, "*it has an inherent bias toward selecting models with many predictor variables, including those that may be only slightly related to the endogenous constructs*" (Hair et al., 2017: p. 199). Rather, for comparisons purposes it is recommended to use the Adjusted Coefficient of Determination (R^2_{adj}) which recalculates the R^2 values accounting for the number of exogenous variables of a model and the relative sample size.

To properly assess the structural model, we also tested for the size of the impact of the predictor variables on the endogenous constructs by means of Cohen's f^2 effect size (Cohen 1988) which shows changes in the R^2 value of an endogenous construct when an exogenous variable is removed from the analysis (Hair et al., 2017). As a rule of thumb, values of .02, .15 and .35 represent respectively "small", "medium" and "large" effects (Cohen, 1988).

Moreover, to evaluate the predictive ability of the structural model, the Stone-Geisser's Q^2 value was obtained using the blindfolding resampling technique. The blindfolding procedure deletes every d^{th} data points in the endogenous construct's indicators and estimates the parameters with the remaining data points. The omission distance d must be chosen between the values of 5 and 10 so that the number of data points divided by d is not an integer (Hair et al., 2017). The deleted data points are then predicted through the estimates obtained from the blindfolding procedure. The difference between the original (deleted) and the predicted value is called prediction error and serves as input of the Q^2 measure. As a rule of thumb, Q^2 values larger than zero indicate good predictive relevance for the specified endogenous constructs.

Linked to the Q^2 value is the q^2 effect size, which measure the relative impact of the predictive relevance of each exogenous variable on the endogenous constructs (Hair et al., 2017) through the following formula:

$$q^2 = \frac{Q^2_{\text{included}} - Q^2_{\text{excluded}}}{1 - Q^2_{\text{included}}}$$

Equation 6.1

where Q^2_{included} is the computation of the Q^2 value with all the constructs of model included and Q^2_{excluded} is the predictive relevance value obtained when the construct of which we want to detect the relative predictive relevance is excluded. As a rule of thumb, values of .02, .15, and .35 indicate that an exogenous construct has a small, medium, or large predictive relevance, respectively (Hair et al., 2017).

However, one of the objectives of this thesis is to compare different models (moderation/non-moderation) and ascertain which one shows higher predictive accuracy meanwhile retaining acceptable "fit" levels. Prior research in PLS-SEM has demonstrated that the R^2, Q^2 and related statistics are not reliable enough when the objective is model's comparison and selection according to their predictive relevance (Berk, 2008; Evermann and Tate, 2010; Henseler et al., 2014; Rönkkö and Evermann, 2013; Sharma et al., 2019b). Hence, the criteria employed to compare models are presented in the following Section.

MODEL SELECTION CRITERIA

Although PLS-SEM was initially devised for prediction purposes, in recent years academics extended its application to theory testing by developing model fit measures (Hair et al., 2017) to be used especially when the path model includes reflectively measured constructs like the one proposed in this study (Dijkstra and Henseler, 2015; Hair et al., 2011, Henseler et al., 2014). These measures provide an indication of how well a model fits the empirical data and therefore allow to identify any model misspecifications.

Specifically, Henseler et al. (2014) found that the Standardised Root Mean Square Residual (SRMR) index can be used to successfully avoid model misspecification in PLS-SEM and to make the right selection among competing models. Indeed, researchers have adopted this model fit index for PLS-SEM (e.g., Gaskin et al., 2018). The SRMR index allows the assessment of the average magnitude of the discrepancies between observed and expected correlations as an absolute measure of model fit criterion. As a rule of thumb, values below 0.10 are generally considered good fit (Hair et al., 2017).

Also, the Root Mean Square Residual Covariance (RMS_{theta}) performs well with reflective measurement models. This index assesses the degree to which the residuals of the measurement model correlate. As such, the RMS_{theta} should be close to zero to indicate good model fit, because it would imply that the correlations between the outer model residuals are very small. Henseler et al. (2014) suggest that values below 0.12 indicate a well-fitting model.

However, researchers should try to strike a balance between predictive power and model fit when analysing different competing models (Sharma et al. 2019a,b). Accordingly, Shmueli et al. (2016) and Sharma et al. (2019a, b) proposed a series of *in-sample* and *out-of-sample* criteria to analyse the predictive capability of structural models that must be used in combination with the model fit measures discussed and with the R^2, Q^2 and R^2_{adj} metrics.

In-sample prediction measures are helpful in the explanatory modelling context. To generate in-sample prediction measures, the parameters of a PLS model are estimated using a given dataset and then the same hypothesised model is used to predict values for

cases from the same sample (Shmueli et al., 2016). Typical in-sample measures are R^2 and R^2adj (Hair et al., 2017). However, through a Monte Carlo study, Sharma et al. (2019b) found that other criteria like the Akaike's (1973) information criterion (AIC) corrected by Sugiura's (1978) (AICc), the McQuarrie and Tsai's (1998) unbiased AIC (AICu) and the Bayesian information criterion (BIC) achieved significantly better model selection success rates than R^2 and R^2adj. The AIC helps to estimate the relative amount of information lost when a given model estimated from data is compared to a "true" but unknown data generating process. The BIC metric instead "*provides an estimate of the posterior probability of a model being true and chooses the model that maximizes this probability on a given data set*" (Sharma et al., 2019a: p. 4). As a rule of thumb, researchers should select the models which show lower values of AICu, AICc and BIC as those models have superior explanatory power.

However, as Shmueli et al. (2016) stated: "*fundamental to a proper predictive procedure is the ability to predict measurable information on new cases*" (p. 4553). For this purpose, *out-of-sample criteria* are helpful as they involve "*estimating the model on a training sample that excludes the cases to be predicted. The model is then used to predict new cases*" (Shmueli et al., 2016: p. 4555).

In particular, the use of the Root Mean Squared Error (RMSE), the Mean Absolute Deviation (MAD) and the Q^2 values are encouraged. The RMSE is the standard deviation of the residuals and indicates the prediction errors that is how spread out those residuals are. The MAD is the average of the absolute differences between prediction and actual observation where all individual differences have equal weight. The Q^2 metric has been already discussed. As a rule of thumb researchers should select the model, which minimises RMSE and MAD values in the latent variable scores (Sharma et al., 2019a).

In this thesis, the "PLS predict procedure" was used in the SmartPLS software to obtain RMSE and MAD (Shmueli et al., 2016). Specifically, out-of-sample predictive validity measures are obtained using the k-fold cross-validation procedure with holdout samples which splits the sample into k equally sized subsamples of data. The PLS algorithm then predicts each fold (hold-out sample) with the remaining k-1 subsets, which, in combination, become the training sample. To obtain more stable results of the

predictive relevance of the model, the k-fold cross-validation procedure is repeated several times with different random data partitions. Then, the average across the repetitions is computed. Following Shmueli et al. (2016), k and the number of repetitions are set at 10 when running the PLS Predict procedure in SmartPLS.

Also, a significance test ascertaining whether the change in R^2 due to the introduction of new variables in the model (control variables or moderators) is significant will be provided. The test is commonly known as F-test (Field, 2013) and is computed through the following formula:

$$F = \frac{(R_L^2 - R_S^2)/(df_L - df_s)}{(1 - R_L^2)/(N - df_L - 1)}$$

Equation 6.2

where R^2_L is the R-squared of the endogenous variable from the model with more variables, and R^2_S is the R-squared of the predicted variable from the model with fewer variables. The quantity df_L-df_S is the difference in the number of variables between the two models. N is the sample size.

However, some precautionary notes must be made. Firstly, the in-sample and out-of-sample selection criteria discussed should not be considered as substitute of the commonly used PLS criteria (R^2, R^2adj and Q^2) but rather as complementary measures useful for models' comparisons (Sharma et al., 2019a). Secondly, Sharma et al. (2019b) advise that "*model selection criteria are not meant to automate model selection with minimal thought. Rather, […] selecting one model over another should proceed primarily on the basis of theoretical arguments aided by empirical evidence*" (p. 379). Even the priority that researchers should give to all the in-sample and out-of-sample criteria whether they provide discordant results is disputed (Sharma et al., 2019a, b). Moreover, the strike of a balance between adequate model fit and good predictive relevance is left to the researcher who should always take into consideration the main objective of the study and whether it focuses on explanatory power or predictive relevance or both like in the case of this thesis. Hence, in the process of model selection when comparing structural models with and without control variables and with and without moderators, we prioritised the model that showed good predictive relevance while retaining acceptable "fit" levels.

6.5.1.3. ANSWERING RESEARCH QUESTIONS Q1, Q2, AND Q3 AND TESTING FOR MODERATION

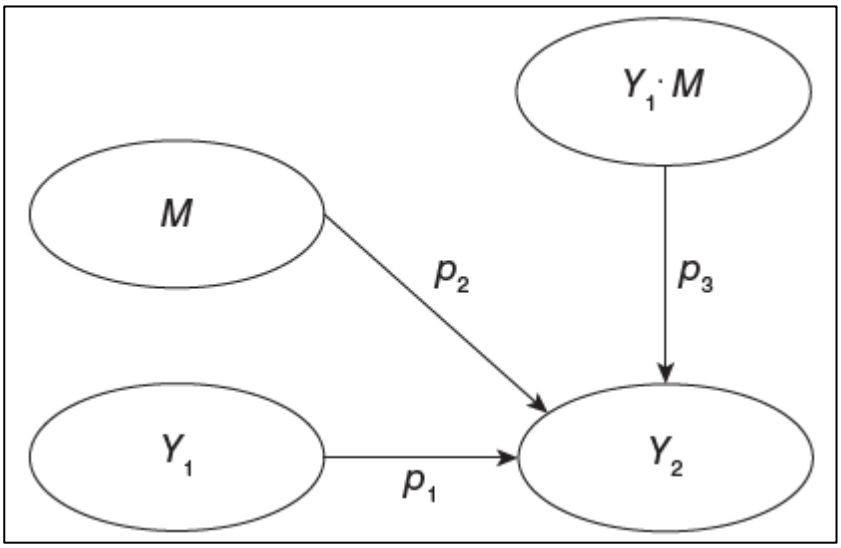
A moderator variable can be defined as a "*variable that affects the direction and/or strength of the relation between an independent variable and a dependent variable*" (Baron and Kenny, 1986: p. 1174). Following Hair et al. (2017) two approaches can be employed to examine moderating effects in PLS-SEM depending on the purpose of the moderation and the type of moderator variables to test:

1. The Interaction Term Moderation approach (ITM).
2. The Multi-Group Analysis approach (MGA).

Both approaches are employed in this thesis to answer different research questions as discussed in the following Sections (See also Table 6.9, Section 6.5).

The ITM approach should be employed when very few relationships within a structural model are moderated by a third variable that is a metric or quasi-metric continuous or scaled variable (Hair et al., 2017). Given an exogenous (Y_1) and an endogenous (Y_2) variable, the ITM (Figure 6.8) creates a third variable (interaction term) computed as a mathematical product of the moderator (M) and Y_1 that is theorised to affect the path between Y_1 and Y_2.

Figure 6.8. Interaction Term Moderation Approach.



Source: Hair et al. (2017, p. 248).

Researchers have proposed several statistical techniques for creating the interaction term (Table 6.13) like the product indicator approach, the orthogonalising approach, and the two-stage approach (Hair et al., 2017).

Table 6.13. Interaction Term Approaches Characteristics.

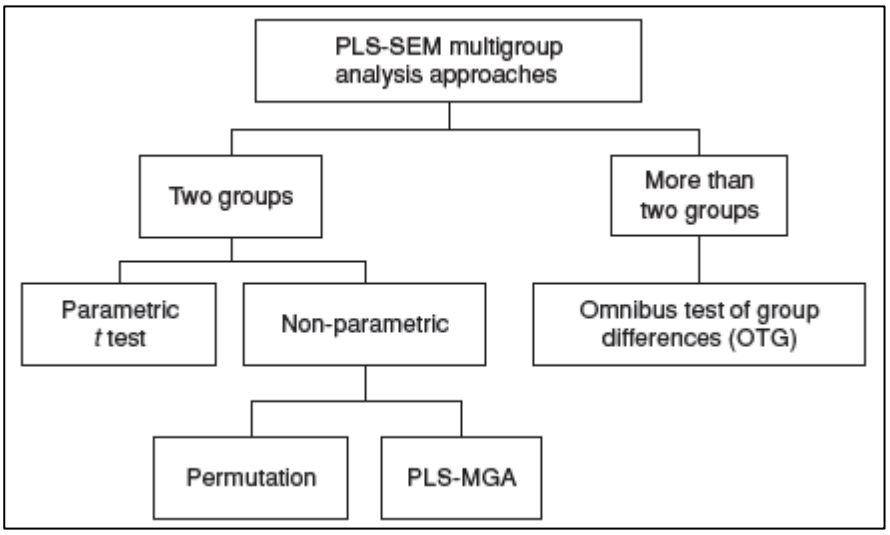
Approaches	Interaction Term Computational Technique	Advantages	Disadvantages
Product Indicator	Multiplies each indicator of the exogenous latent variable with each indicator of the moderator variable. The product indicators become the indicators of the interaction term.	– Easy to implement.	– Works only with reflective constructs. – Produces collinearity yielding inflated standard errors and biased path coefficient estimates. – Variables standardisation prevent from easily compare the main effect with the simple effect.
Two-Stage	Runs the PLS algorithm for the model with no moderation to obtain the latent scores of the exogenous and moderating variables (stage 1) and then multiply those scores to create a single item measure that is the interaction term.	– Works with reflective and formative constructs. – Higher levels of statistical power compared to the other two approaches maximising chances to find moderation effects.	– Does not maximise prediction.
Orthogonalizing Approach	Creates all product indicators of the interaction term like the product indicator approach and then regresses each product indicator on all indicators of the exogenous construct and the moderator variable. Then, uses the standardized residuals "*e"* as indicators for the interaction term.	– Prevent any collinearity issues. – Maximise prediction. – Facilitates the interpretation of the moderating effect's strength compared to product indicator approach.	– Lower statistical power than other approaches.

Source: adapted form Hair et al. (2017).

This thesis employs the two-stage approach proposed by Chin et al. (2003) to answer research question Q2. The moderator variable "Int_SNS_Use" is a metric measure operationalised through the amount of time spent on the SNSs gauged in minutes. Accordingly, an interaction term approach must be preferred to MGA techniques. Moreover, in a Monte Carlo study comparing the statistical power, predictive accuracy and reliability of the above interaction term approaches, Henseler and Chin (2010) suggest using the two-stage approach when the objective of the analysis is to ascertain whether a moderating effect is significant or not because it yields higher levels of statistical power.

The MGA approach should be preferred when the researcher needs to test all the relationships of a model (or many of them) for the moderating effects of a categorical moderator variable (Vinzi et al., 2010). Categorical variables (like "Type of SNSs Used" and "Combined/not Combined Use of SNSs" in this study) are employed as grouping variable which split the data into subsamples to be compared to investigate any significant differences in the path coefficients of the relationships of the structural model. Following Hair et al. (2017) several types of non-parametric MGA can be used to test for moderating effects depending on the number of groups that must be compared (Figure 6.9).

Figure 6.9. MGA Approaches in PLS-SEM



Source: Hair et al. (2017, p. 293).

In particular, when the aim is to test difference across two groups and data are non-normally distributed like in this study (see Chapter 7), either the Permutation test or the Partial Least Square Multigroup Analysis (PLS-MGA) can be employed. The former works by permuting "*observations between the groups and re-estimating the model for each permutation*" for both groups (Hair et al., 2017, p. 294). Then, the differences for the path coefficients of the two models are computed for each permutation and a two-tailed 95% CI of the differences is created. If the original difference of a specific path coefficient does not fall within the CI range, then the moderation effect is statistically significant.

The PLS-MGA works on the bootstrapping procedure by comparing "*each bootstrap estimate of one group with all other bootstrap estimates of the same parameter in the other group. By counting the number of occurrences where the bootstrap estimate of the first group is larger than those of the second group, the approach derives a probability value for a one-tailed test*" (Hair et al. 2017, p. 294).

Extant PLS-SEM literature (e.g., Ernst, 2004; Hair et al., 2018; Sarstetd et al., 2011) provides evidence that the permutation test controls very well for type I error, performs well across a wide range of conditions, and must be preferred when two-tailed tests are performed. Provided the categorical nature of the moderator variable "Type of SNSs Used" and "Combine and not Combined Use of SNSs", given the non-directional nature of the hypothesis to be tested and provided the advantages in controlling for type I error of the permutation test over PLS-MGA, this research employed the permutation procedure to answer research questions Q1 and Q3.

However, before conducting a Permutation test, the ***measurement invariance*** among the constructs of the different groups to be compared must be established to ensure the validity of outcomes and conclusions (Hair et al., 2017). *Measurement invariance* indicates that the same constructs which are being measured across different groups have the same meaning for all the groups compared (Hair et al., 2017). Hence, "*failure to establish data equivalence is a potential source of measurement error*" (Hult et al., 2008: p. 1028) which could lead to misleading interpretation of the results. To test measurement invariance, Henseler et al. (2016) proposed the Measurement Invariance of Composite Models (MICOM) procedure consisting of the three hierarchical stages:

1. **Establish configural invariance,** that is constructs must be equally parameterised (identical measures) and estimated (identical PLS algorithm setting) across groups.
2. **Establish compositional invariance,** meaning that the composite scores of the latent variables are the same across groups.
3. **Ensuring equality of composite mean values and variances** across groups.

Following Henseler et al. (2016), configural invariance was assessed through a qualitative inspection of the composites' specifications and algorithm settings across all

the groups. Compositional invariance was assessed through a permutation test examining whether the correlation (*c*) between composite score of the same constructs across different groups was equal to 1. Otherwise, "*if c is significantly different from one, we must […] conclude that there is no compositional invariance*" (Henseler et al., 2016: p. 414). To run the test in SmartPLS 300 iterations, with stop criterion of $1*10^{-7}$ with a number of 5000 permutations and a significance level of 5% as suggested by Sarstedt et al. (2011) were employed.

When configural and compositional invariance are established, then partial measurement invariance is confirmed. Accordingly, MGA and the comparison of path coefficients is meaningful. If the composites have also equal means and variances across the groups, full measurement invariance is confirmed, and researchers can pool the data of different groups and carry out an aggregate analysis benefiting from the increase in statistical power. However, given that the main concern of this study is not to carry out an analysis on the pooled level of the data of the groups but rather account for heterogeneity of respondents, the measurement invariance analysis will be conducted till step 2 of the MICOM procedure.

For reasons of convenience and ease of consultation all the metrics and procedures to assess the measurement and the structural model and the related SmartPLS algorithm settings are summarised in tables reported in Appendix K.

6.5.2. RESEARCH QUESTION Q4: TWO-WAY ANOVA

Research question Q4 investigates significance differences in the amount of Bond_SC and Brid_SC owned by users of different SNSs (Facebook and Twitter) according to the intensity of use of those SNSs (light, mild and heavy users). This means testing for the "interaction effect" of those categorical variables (Field, 2013). For this purpose, a two-way (factorial) analysis of variances (ANOVA) is recommended (Field, 2013). Following best practice guidelines in research, separate ANOVAs for each dependent variable were performed (Field, 2013; George and Mallery, 2020). Although this practice ignores any relationship between the dependent variables and can increase the Type I error because multiple tests are carried out on the same data and groups, the literature legitimate it in the name of clarity, ease of interpretation of results and parsimony (George and Mullary, 2020: p. 300). Researchers suggested to control for

Type I error inflation (familywise error rate) using procedures like the Sidak correction (Hair et al., 2018) which tests each individual hypothesis at a significance level of 1-(1-alpha)$^{1/m}$ where m is the number of comparisons and alpha is the initial established level of significance. The Sidak correction was preferred to other procedures like the Bonferroni correction as it achieves a higher statistical power (Hair et al., 2018).

Yet, some limitations must be highlighted. The variable "Time Spent Online" is a ratio variable, therefore it had to be rearranged into three categories (light, mild and heavy users) through the quartile split method, so that it could be included as a categorical variable in the analysis and meet assumption 2 of the ANOVA. This entailed that part of its variance was lost (Henseler and Fassott, 2010). However, transforming a ratio variable to a categorical one is a common approach in research, especially when the use of more complicated statistical techniques of analysis like the Analysis of Covariances (ANCOVA) is not feasible. Indeed, although ANCOVA allows to test for interaction effect of ratio variables it was not employed in this study because its many assumptions were not met. Also, as a rule of thumb the quartiles employed to split the variable "Time Spent Online" should not be included into any of the groups created because they are used as splitting points (Field, 2013). This means that information is lost. However, this is a problem common to any other type of splitting procedure, like the Median or the Mean split methods.

Before carrying out the two-way ANOVA analysis the following assumptions must be met (Field, 2013):

1. **Assumption 1**: the dependent variable should be measured at the continuous or discrete level and should be either interval or ratio variables. Specifically, Bond_SC and Brid_SC are measured at the interval level using the unstandardized variable scores obtained from the analysis carried out in PLS-SEM. The use of Unstandardized Scores was preferred to the sum score procedure because it accounts for differences in the individual item weights (Henseler et al., 2014) that if ignored can produce "*substantial biases in the parameter estimates*" (Hair et al., 2017: p. 30) as the researcher would not account for measurement error (Section 6.5.1).

2. **Assumption 2**: the independent variables should each consist of two or more categorical, independent groups. In this study, the variable "Type of SNSs Used" has two categories (Facebook users and Twitter Users) and the variable "Intensity of SNSs Used" is split in three categories (Light, Mild and Heavy users).
3. **Assumption 3**: the groups of analysis must be independent. Also in this case the assumption is met; Facebook users are not in the group of Twitter users and vice versa. Also, light, mild and heavy users' samples of Facebook and Twitter include different respondents.
4. **Assumption 4**: There should be no significant outliers in the data. Outliers will be investigated through scatter plot diagrams. As Chapter 7 demonstrates, this assumption is also met for both dependent variables (Bond_SC and Brid_SC).
5. **Assumption 5**: the dependent variable should be approximately normally distributed for each combination of the groups of the two independent factorial variables. However, the two-way ANOVA is quite "robust" to violations of normality (Field, 2013; George and Mallery, 2020). This is particularly true with studies that employ samples with more than 30 respondents (like this study) (Field, 2013). The normality of variables is assessed by looking at the values of Skewness and Kurtosis. To be normal, a distribution should have values of Skewness between ±1 (Hair et al., 2017) and Kurtosis between ±2 (George and Mallery, 2020). The observation of those metrics was preferred to normality tests like the Kolmogorov–Smirnoff test, the Shapiro–Wilk test and the significance tests of skewness and kurtosis because in large samples like that of Mild Facebook users (n = 162) "*they can be significant even for small and unimportant effects*" (Field, 2013; p. 184).
6. **Assumption 6**: there must be homogeneity of variances of the dependent variables (Bond_SC and Brod_SC) for each combination of the groups of the two independent variables (Time Spent Online and Type of SNSs Used). This assumption was tested through the Levene's test (Field, 2013). If the Levene's test is significant ($p < .05$) then the assumption of homogeneity of variances is violated. However, when the sample size is large, small differences in group variances can produce a Levene's test that is significant (Field, 2013). Moreover, the two-way ANOVA is robust against violations of the assumption of

homogeneity of variances if sample sizes are roughly equal (Field, 2013). In the case of this study, samples sizes of groups are not equal. Hence, violation of this assumption could provide unreliable results.

Notably, assumptions 1, 2 and 3 have been met. Assumptions 4, 5 and 6 are tested using the SPSS 24 software and the outcomes are reported in Chapter 7, Section 7.4.

6.5.3. RESEARCH QUESTION Q5: NON-PARAMETRIC TWO-WAY ANOVA

Research question Q5 investigates whether there are any statistically significant differences in the amount of offline and online Political Participation reported by different users of different SNSs (Facebook and Twitter) who show different levels of intensity of SNSs use (Light, Mild and Heavy). Following the rationale provided in the previous Section, for reasons of clarity of interpretation of the results and parsimony (Field, 2013; George and Mallery, 2020), the Online and Offline Political Participation dependent variables will be analysed separately.

However, in this case a non-parametric version of the two-way ANOVA is employed. This is because the two dependent variables did not meet the assumptions of normality and homogeneity of variances across groups (Chapter 7, Section 7.5). Although the two-way ANOVA is robust against small variation from normality or when homogeneity of variances is not met, empirical evidence suggests that when sample sizes of the groups to be compared are not similar (like in the case of this study) then ANOVA can yield unreliable results (Field, 2018). Hence, a non-parametric alternative must be considered, unless data transformation and deletion of outliers are used.

"*A very popular method for a nonparametric analysis of variance judging from the number of publications…is the Aligned Rank Transformation (ART)*" (Luepsen, 2017: p. 6924). This procedure was devised by Hodges and Lehmann (1962) and was extend to the factorial design (two-way) by Higgins and Tashtoush (1994). The ART procedure transforms the dependent variable into ranks and reorders them by giving the smallest observation the rank 1, the second smallest the rank 2, etc., but only after an

alignment of the dependent variable is performed according to the effect of primary interest. Then, a two-way ANOVA can be performed (Salter and Fawcett, 1993).

The ART procedure is run through the "R" software employing the ARTool package (Wobbrock et al., 2011; Kay and Wobbrock, 2016) which is recommended for between x between factorial designs like the one of this study (Feys, 2016). Notability, being a non-parametric statistical method of analysis, the ART test does not require to meet any distributional assumption.

6.6. SAMPLING

Once the appropriate statistical techniques of analysis have been defined, the next step is the decision of the sampling technique to be employed and the sample size required (Bryman, 2012). Accordingly, the target population is defined in Section 6.6.1., then the advantages, limitations and source of errors of using a web panel sample are discussed (Section 6.6.2). Finally, the appropriate sample size is determined, considering the type of analysis carried out in this study (Section 6.6.3).

6.6.1. TARGET POPULATION

A clear identification of the target population of any research is important to reduce inaccurate response and minimise the *response error* bias (Bryman, 2012). Following Malothra et al. (2017, p. 414) the target population of this study (Table 6.14) was defined accordingly to four criteria:

1. **The element** from which information is sought.
2. **The sampling unit** or element that can be selected for the purpose of the research.
3. **The geographical extent** of interest to the research.
4. **The timeframe** within which the sampling units are relevant for the research.

Table 6.14. Target Population of the Study

Target Population of the Study	
Element	Citizens
Sampling Unit	Citizens aged over 18, who use Facebook, Twitter or both.
Geographical Extent	Living in the UK
Timeframe	Jan-19

6.6.2. WEB PANEL SAMPLE ADVANTAGES, LIMITATIONS AND SOURCES OF ERROR

This study employed a web panel sample, that is as a bank of potential survey respondents who are recruited to participate in various online surveys (Rea and Parker, 2014). For the collection of the data, the web agency Pure Profile (www.pureprofile.com) was selected after an extensive evaluative process of due diligence, whereby costs and benefits of multiple options were considered. Pure Profile was chosen for its large panel sample including more than 700,000 UK respondents and its lower cost per complete response, compared with other UK-based data collection agencies at the time of this study. Other aspects were considered, like compliance with data protection legislation, panel representativeness of the target population, and quality assurance process of respondents' reliability.

The use of a web panel sample was deemed suitable, because the target population and most of the variables investigated in this study pertain to the online world. Moreover, web panel samples are easy to access, promptly available and reduce the resources needed for participants screening. The socio-demographic information provided by respondents before joining the panel were used to screen respondents who qualified to participate in this study (Facebook and Twitter users).

Yet these advantages come with some limitations. For instance, Rea and Parker (2014) and Williams (2012) highlight that:

1. *Participant self-selection negates pure random selection*. Facebook and Twitter accounts holders who do not feel comfortable answering online survey or who

are not aware of Pure Profile and have not been recruited by the agency will not be included in the panel sample. The absence of such individuals creates a systematic bias in the sample population or what is called *error of non-observation*, which may increase *sampling error*. Hence, the sample is usually not representative of the target population. This may limit the generalisation of the findings to the entire population of Facebook and Twitter UK users. However, in a study comparing results from surveys adopting online web panels and random sampling techniques, Williams (2012) found that the correlations and relationships between survey estimates were similar, whether drawn from the online panel or a probability sample. Accordingly, online panels can be considered as a reliable option for generating statistics very close to outputs provided by random sampling techniques.

2. *Non-response error is difficult to control*. This problem arises when respondents either do not agree to participate in the survey or leave the questionnaire incomplete. As with all surveys (whether online or via traditional methods) it is difficult to rule out *non-response bias*, since we cannot be sure that those who respond are not in some unknown way different, to those who choose not to (Bryman, 2012). However, some steps were taken in this study to minimise this bias (Section 6.3.4).
3. *Respondent identity is difficult to establish*. The researcher is not able to control who responds (i.e., the person at whom the questionnaire is targeted is the person who answers). This may affect the reliability and validity of the findings.

6.6.3. SAMPLE SIZE

Prior to gathering data, the appropriate sample size was calculated according to the type of analysis performed (Field, 2013). As mentioned in Section 6.5, this research employs PLS-SEM to answer research questions Q1, Q2 and Q3, and a series of two-way parametric and non-parametric ANOVAs to answer research questions Q4 and Q5. The following Sections discuss the appropriate sample size needed to generate adequate statistical power for each type of analysis.

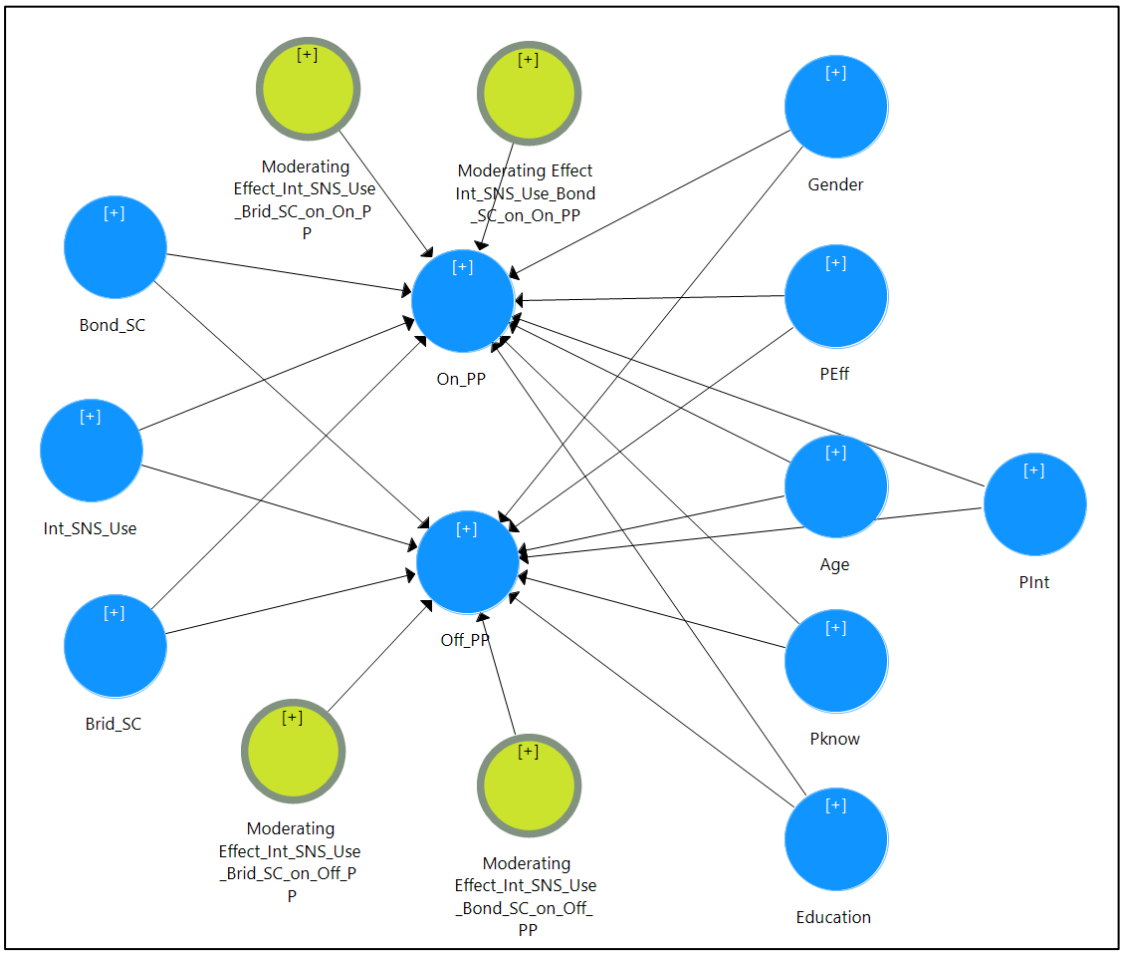
6.6.3.1. SAMPLE SIZE IN PLS-SEM

To determine the appropriate sample size in PLS-SEM two approaches were followed:

1. Rule of thumb.
2. A priori statistical power analysis.

Regarding the *rule of thumb* in PLS-SEM, several authors (e.g., Bentler and Chou, 1987; Bollen, 1989; Nunnally, 1967) have tried to identify the approximate sample size required in PLS-SEM based on model complexity. The general advice is that models with more parameters, variables and indicators require larger samples (Hair et al., 2011). Accordingly, Nunnally (1967) and Barclay et al. (1995) suggest that the sample size should be equal to 10 times the largest number of structural paths directed at a particular construct in the structural model. The largest number of structural paths in the proposed model are directed at both On_PP and_Off_PP when testing for the moderation of "Int_SNS_Use" (Chapter 7, Section 7.2). They both have 11 structural paths directed at them (9 paths of the basic model plus 2 interaction terms. See Figure 6.10). Accordingly, the minimum sample size for the model should be 110 (10x11). This minimum sample size is considered adequate also for the MGA conducted through permutation tests employed to answer research questions Q1 (Chapter 7, Section 7.1) and Q3 (Chapter 7, Section 7.3) which does not require the creation of any interaction terms.

Figure 6.10. Structural Model of the Two-Stage Moderation Analysis of Int_SNS_Use.



Note: The green circles represent the interactions terms created between Bond_SC and Brid_SC with Int_SNS_Use as displayed in SmartPLS.

Further, a *priori statistical power analysis* was conducted through G*Power (Faul et al., 2007) which is a popular software employed in several scholarly articles for sample size computation (Hair et al., 2017). The level of significance set in the study, the effect size, the statistical power sought, and the numbers of parameters and observations included in the model were considered when computing the adequate sample size in PLS-SEM. While the α level of significance sets the threshold, which determines whether an effect exists, the effect size reveals the importance of that effect and the statistical power represents the probability that the effect is found (Field, 2013). Following best practice in PLS-SEM, a statistical power of 80% and a significance level of 0.05 were set (Cohen, 1992; Hair, 2017). With respect to the minimum effect size f^2, Cohen (1988) suggests

that small effect sizes are 0.02, medium effect sizes are 0.15, and large effect sizes are 0.35. Since we are testing for moderation which is usually linked to small/medium effect sizes (Hair et al., 2017; 2018) we set $f^2 = 0.085$ as a value which is in-between small and medium effect. To compute sample size the option "Linear multiple regression: Fixed model, single regression coefficient" is selected (Faul et al., 2007) and the “a priori” type of power analysis is requested. Accordingly, G*Power calculated a target sample sizes of 95 respondents (Figure 6.11).

Yet, when conducting moderation analysis by means of permutation test (Section 6.5.1.4) the aim is to test differences in the path coefficients of different groups. Hence, the minimum sample size should be reached for each group. For this study we have three groups of respondents categorised according to the type of SNS used, namely Facebook, Twitter, and Facebook and Twitter combined. Then each of those groups is further divided according to the intensity of use in three subgroups, namely light, mild, and heavy users. Therefore, we have 9 groups as reported in Table 6.15. To categorise the variable “Intensity of SNSs Use” into three categories, we employed the “Quartile Split Method”. Accordingly, all observations below the first quartile would be considered light users and all those above the third quartile would be considered heavy users. All those in between are considered mild users. Following the rule of thumb discussed above to have at least 110 respondents in both the light and heavy users, 440 respondents for each of the three types of SNSs users considered are needed. Hence, the final sample size should be 1320 (440x3) respondents. Following to G*Power’s computation we would need a final sample size of 1140 respondents. Due to financial constraints and considering that PLS-SEM provides reliable results also with small sample sizes (Hair et al., 2017), we accepted G*Power’s threshold.

Figure 6.11. Minimum Sample Size Computed in G*Power for PLS-SEM Moderation Analysis.

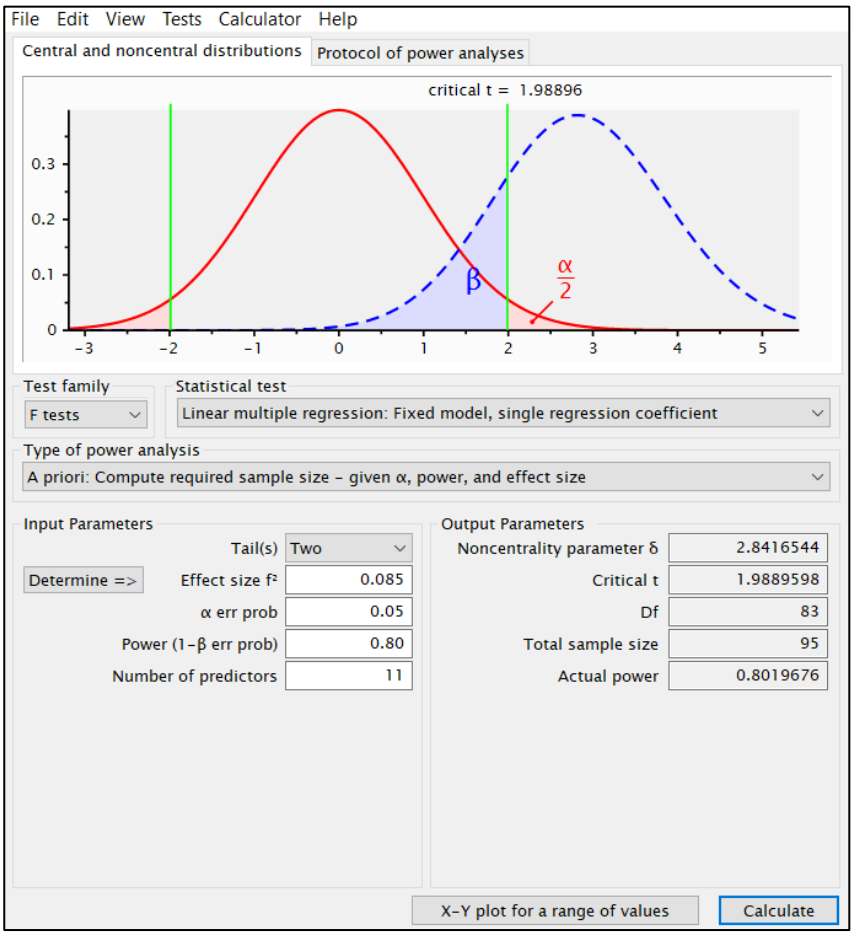


Table 6.15. Number of Groups for MGA analysis.

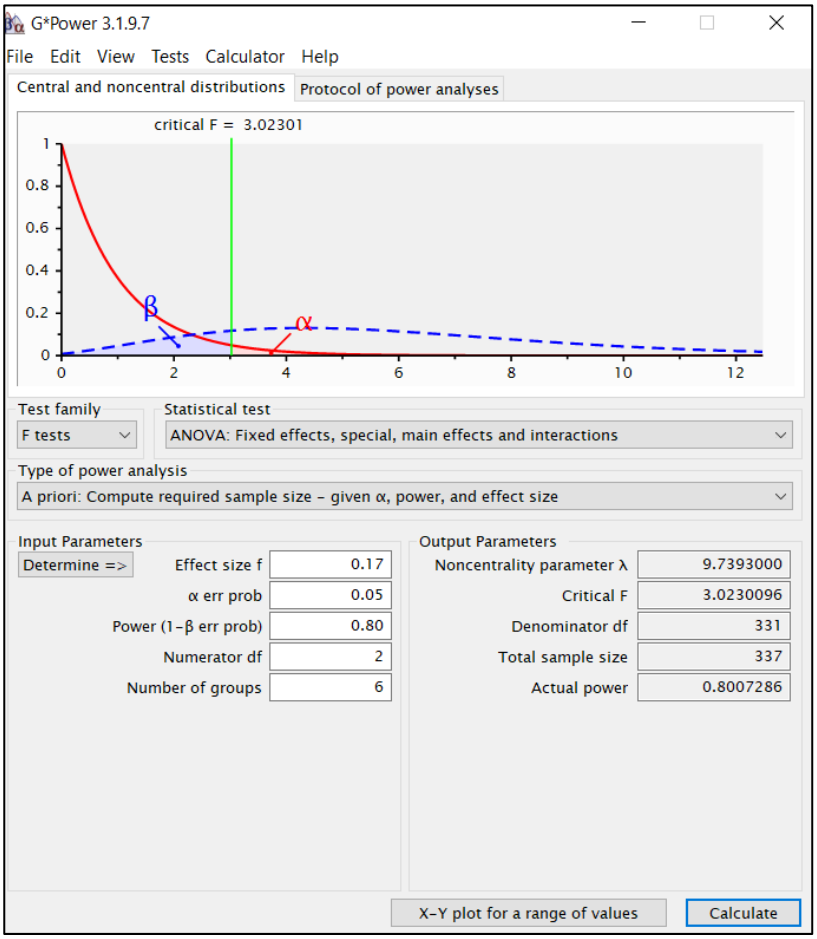
SNS_Used	Heavy Users	Mild Users	Light Users	Grand Total
Facebook and Twitter combined	x	x	x	3
Facebook	x	x	x	3
Twitter	x	x	x	3
Grand Total	3	3	3	9

6.6.3.2. SAMPLE SIZE FOR THE TWO-WAY ANOVA ANALYSIS

To compute sample size for the two-way ANOVA, this study follows the recommendations of Field (2013) and Faul et al. (2007) according to whom the level of significance set for the analysis, the effect size, the statistical power required, the degree of freedoms of the numerator and total amount of groups to include in the analysis are

the parameters to consider when computing sample size. Accordingly, the F-test family is selected from the G*Power main menu and the option "ANOVA: fixed effects, special, main effects and interactions" is chosen. The significance level is set at 5% and the desired level of power at 80%. The effect size is here set at 0.17 which according to Cohen (1988; 1992) mirrors a small to medium effect size. This is in line with previous research conducted in the field of Social Capital as related to SNSs studies (Boulianne, 2009; 2015; Skoric et al., 2016). The degree of freedom is set to be 2 (degree of freedom of the interaction term). Finally, we specified six as the total number of groups involved in the analysis (Facebook and Twitter users divided in light, mild and heavy). Hence, the sample size was computed (Figure 6.12). The power analysis indicates that at a 5% level of significance there is an 80% chance of finding an effect size as low as 0.17 if we recruit a total of 337 respondents. Considering the threshold set earlier for the PLS-SEM analysis of 1140 the minimum sample size required for the two-way ANOVA analysis is met (1140/3 = 380).

Figure 6.12. Sample Size Computation for the Two-Way ANOVA analysis.



6.6.3.3. SAMPLE SIZE FOR THE ART TEST

As discussed in Section 6.5.3, to answer research questions Q5 a non-parametric two-way ANOVA through the ART test is performed. The ART test performs well when sample sizes are small (lower than 50). The general rule of thumb is that the ART test can provide reliable results even with smaller samples than those required for the equivalent parametric test (Fagerland, 2012; Kelley and Sawilowsky, 1997; Sawilowsky, 1990). Hence, the sample size computed earlier for the two-way ANOVA is considered adequate.

6.7. PILOT STUDY: TESTING FOR QUESTIONNAIRE CLARITY. COMPREHENSIVENESS, ACCEPTABILITY AND FOR PSYCHOMETRIC PROPERTIES OF MEASURES

Before launching any online survey, Bryman (2012) and Rea and Parker (2014) suggest conducting a pilot study to:

1. Ensure that the questionnaire is free from any mistakes which can compromise its clarity, comprehensiveness and acceptability.
2. Confirm the psychometric properties of the measures employed in this thesis and conduct a preliminary assessment of the structural models.

The pilot study of this research was launched in December 2018. A total of 314 respondents aged over 18 and belonging to the panel sample of the data collection agency Pure Profile took part in the pilot study. The respondents were randomly selected from the population of individuals using Facebook and/or Twitter. The validity of completes was checked against time employed to complete the survey (see Section 6.3.4), response set biases and suspicious response patterns. Accordingly, 9 respondents were eliminated and a total of 305 respondents were retained, divided according to the different groups of users as shown in Table 6.16.

Table 6.16. Sample Size Pilot Study.

Sample Size Pilot Study	
Groups	**N**
Facebook Users (F_U)	102
Twitter Users (T_U)	103
Facebook and Twitter Combined (F+T_U)	100
Total	**305**

The size of the sample for the pilot study was set following best practice guidelines with respect to: (1) the type of instrument of data collection employed and (2) the type of analysis conducted in this study. A sample size in the range of twenty to forty respondents was considered adequate to pre-test a questionnaire for clarity and

acceptability (Rea and Parker, 2014; Cocks and Torgerson, 2012). With respect to the type of analysis employed, to compute the adequate sample size we followed the recommendations discussed in Section 6.6.3. Accordingly, a total sample size of 300 respondents was deemed appropriate (100 per each group of Facebook, Twitter and Facebook and Twitter Combined). Notably, for the preliminary analysis of the moderating effect of "Int_SNS_Use", only the two-stage interaction approach was employed, and the groups were not split into light, mild and heavy users. This was done only successively in the main statistical analysis to get a deeper insight on our findings (see Chapter 7). Splitting the users groups according to their level of intensity of use of the SNSs would have required a much larger sample size, which for the purpose of the pilot was not considered necessary.

Ensure questions clarity, comprehensiveness and acceptability.

Regarding *question clarity*, the pilot study highlighted no significant problems. Indeed, all questions were answered by all respondents. However, upon completion of the questionnaire, respondents were asked to provide qualitative feedback on the questionnaire, reporting any difficult or ambiguous questions. Although respondents did not report any issues, we identified some problems with respect to comprehensiveness and reverse coding.

With respect to comprehensiveness, researchers must ensure that, for each question, the response choices cover a reasonably complete and mutually exclusive range of alternatives. In the pilot study, when asking respondents how much time they spent on the SNSs used, the fixed choices options of Ellison et al. (2007) were provided (Figure 6.13).

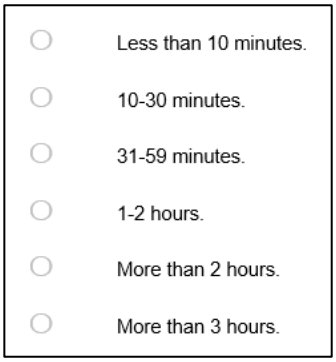
Figure 6.13. Fixed Choice Response Options for Time Respondents Spent on SNS in Ellison et al. (2007).

In the past week, on average, approximately how many minutes per day have you spent on Facebook? 0 = less than 10, 1 = 10–30, 2 = 31–60, 3 = 1–2 hours, 4 = 2–3 hours, 5 = more than 3 hours

Source: Ellison et al. (2007, p. 1150).

The pilot study revealed that some respondents reporting to spend 1 hour on the selected SNS placed themselves in the 31-60 minutes category meanwhile others selected in the 1-2 hours category. The same happened for those who reported to spend 2 hours. This problem was spotted thanks to a follow-up open question asking respondents to specify hours and minutes spent on the selected SNS, on a typical day. This question was asked to facilitate the moderation analysis in PLS-SEM using "time spent on SNSs" as a ratio continuous moderator rather than as a categorical one. Indeed, the use of continuous moderators is encouraged because allows the researcher to carry out the analysis just once on the entire sample. Meanwhile, using categorical moderators would force the researcher to use group comparison techniques, which require more time and effort in terms of analysis. Also, by dividing the sample in different groups the variable variance is lost. Accordingly, the options provided were changed, resulting in mutually exclusive categories (Figure 6.14).

Figure 6.14. Fixed Choice Option for Time Spent on SNSs for This Study



These amendments to the response categories are in line also with changes reported in other studies (i.e., AlAteeq et al., 2016; Fullwood et al., 2016; Lou et al., 2012) which adopted the scale of Ellison et al. (2007).

Another problem became evident with the reverse coded questions of the Bonding Scale of Williams (2006) employed to operationalise online Bonding Social Capital (Figure 6.15).

Figure 6.15. Online Bonding Scale

Bonding Subscale

1. There are several people online/offline I trust to help solve my problems.*
2. There is someone online/offline I can turn to for advice about making very important decisions.*
3. There is no one online/offline that I feel comfortable talking to about intimate personal problems. (reversed)*
4. When I feel lonely, there are several people online/offline I can talk to.
5. If I needed an emergency loan of $500, I know someone online/offline I can turn to.*
6. The people I interact with online/offline would put their reputation on the line for me.
7. The people I interact with online/offline would be good job references for me.
8. The people I interact with online/offline would share their last dollar with me.
9. I do not know people online/offline well enough to get them to do anything important. (reversed)
10. The people I interact with online/offline would help me fight an injustice.

Source: Williams (2006, p.602).

Question 3 and 9 are reversed coded questions and when analysing the pilot data, it was evident that some of the respondents (10%) who scored high values on all the other questions had low values in those questions (once they were reversed coded). This could be due to the presence of negatives like "no" and "not" which are sometimes easy for respondents to miss in a self-completion questionnaire (Bryman, 2012). On the other hand, these respondents answered correctly all the attention checks questions and the time they spent completing the survey was close to the average. Hence, after consulting with experts within the Faculty and following the suggestions of Bryman (2012) and Rea and Parker (2014) the words "not" and "no" were dropped, to avoid any misinterpretation and minimise any problems related to the reliability and validity of the study. Hence, questions 3 and 9 were rephrased using a positive formulation as follow:

- **Question 3** → When I feel lonely, there are several people on Facebook I can talk to.
- **Question 9** → I know people on Facebook well enough to get them to do something important.

With respect to questionnaire *acceptability*, Rea and Parker (2014) claims that it can decrease when: (1) the questionnaire is too long, or (2) it contains questions that are perceived as too invasive and violating ethical and moral standards, or (3) when

respondents are concerned with anonymity and protection of the data provided. Considering that all the respondents completed the survey, it could be safe to assume that they were not particularly concerned about those aspects and that the instructions provided in the information sheet concerning the above issues were clear and exhaustive.

Confirm the psychometric properties of the measures employed and conduct a preliminary assessment of the structural models.

Another important aim of a pilot study is to test the reliability and validity of the questionnaire items (Bryman, 2012). Such assessment followed established guidelines in conducting PLS-SEM analysis for reflective measurement models employing the metrics discussed earlier. The main output of the analysis in reported in Appendix J. Here, it is worthy to mention that for all the groups in Table 6.16, the constructs demonstrated adequate internal consistency reliability, convergent and discriminant validity. Also, we carried out CTA-PLSs (see Section 6.5.1.1) which empirically ascertained that the constructs were correctly defined as Reflective. Further, FCAs (see Section 6.3.5) confirmed that the study was free from CMB. All models showed between moderate and substantial predictive accuracy and adequate predictive relevance.

6.8. SUMMARISING

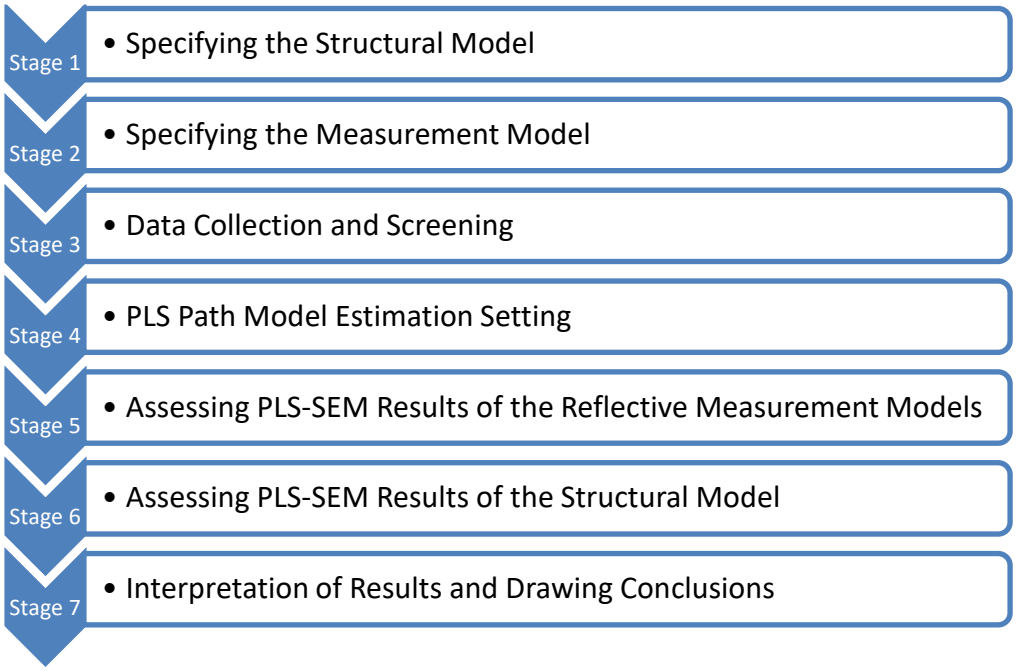
This study adopted a quantitative research strategy to address the research questions, employing a cross-sectional design where data was collected through an online survey hosted on Qualtrics and administered by the data collection agency Pure Profile to its web panel. The minimum sample size (n = 1140) required to achieve sufficient statistical power was determined considering rule of thumbs for the type of statistical analysis employed and performing a priori statistical power analysis. PLS-SEM analysis, two-way ANOVA and the ART test were chosen to answer the research questions. Assumptions, metrics and algorithm setting for the validation process of the chosen statistical approach were discussed. The questionnaire was piloted and designed to minimise CMB, social desirability and acquiescence biases. The measures employed in this research have all been adopted in previous academic peer-reviewed articles. This was meant to increase the reliability of the research, facilitate study replicability and establish face and measurement validity. In the next chapter, the results of the analysis carried out to answer the proposed research questions are provided.

7. DATA ANALYSIS

This chapter provides the results of the data analysis carried out to investigate the research questions presented in Chapter 5. Different techniques of analysis are employed for each research question as discussed in Chapter 6, Section 6.5 and summarised in Table 6.9. To recapitulate, research questions Q1, Q2 and Q3 will be investigated using PLS-SEM through the SmartPLS software 3.2.8 version following a multistage procedure (Figure 7.1), as suggested by Hair et al. (2017). Questions 1 to 3 aim to test the significance of different moderating effects on the relationships between Bond_SC and Brid_SC with Off_PP and On_PP. In particular, to answer research question Q1 (Section 7.1) a Multi-Group Analysis (MGA) by mean of a permutation test is employed because the moderator variable "Type of SNSs Used" (**Type_SNSs_Used**) is operationalised as a categorical grouping variable [Group 1 = Facebook Users only (**F_U**) and Group 2 = Twitter Users only (**T_U**)]. Research question Q2 (Section 7.2) is investigated using the two-stages approach for the moderation analysis of "Intensity of SNSs Use" (**Int_SNS_Use**) which is a ratio measure operationalised through the length of time spent on the SNSs gauged in minutes. Research question Q3 (Section 7.3) involves testing for the significance of the moderating effect of the combined and not Combined use of Facebook and Twitter (**Comb_Use_SNSs**) which is a categorical variable. Hence, a MGA by mean of permutation test is employed. Questions Q4 (Section 7.4) and Q5 (Section 7.5) are investigated through a series of parametric two-way ANOVAs using SPSS 24 and non-parametric two ways ANOVAs employing the "R" software version 3.6.0. Validation, interpretation and discussion of the results are based on the metrics and procedures discussed in the previous Chapter.

For convenience and ease of consultation, the criteria discussed in Section 6.5.1.1 and Section 6.5.1.2 to assess respectively the measurement and the structural models to answer research questions Q1, Q2 and Q3 have been schematically summarised in tables and reported in Appendix K together with the algorithm settings employed in SmartPLS software to get all those assessment metrics.

Figure 7.1. A Systematic Procedure for Applying PLS-SEM.



Source: Adapted from Hair et al., 2017, p. 30.

7.1. INVESTIGATING THE MODERATING EFFECT OF TYPE OF SNS USED

This Section and its sub-sections present the results obtained through the empirical analysis of the moderating effect of the Type of SNSs used (**Type_SNSs_Used)** on the relationships between Bond_SC and Brid_SC with On_PP and Off_PP. This section and its sub-sections are arranged in a sequential order that follows the systematic procedure to apply PLS-SEM analysis reported in Figure 7.1.

The structural model to answer research question Q1 (Figure 7.2) stems from the theoretical frameworks of the Resource Mobilisation Theory, within the context of Social Capital and Political Participation as discussed and presented in Chapter 5.

Following the scheme proposed by Hair et al. (2017) in Figure 7.1, the second stage of the procedure for applying PLS-SEM analysis consists of determining the Measurement (or outer) model which illustrates the relationships between the latent constructs and their corresponding indicator variables. As discussed in Section 6.5 this study adopts reflective measurements for all the latent constructs (Figure 7.3).

Figure 7.2. Structural Model Research Question Q1.

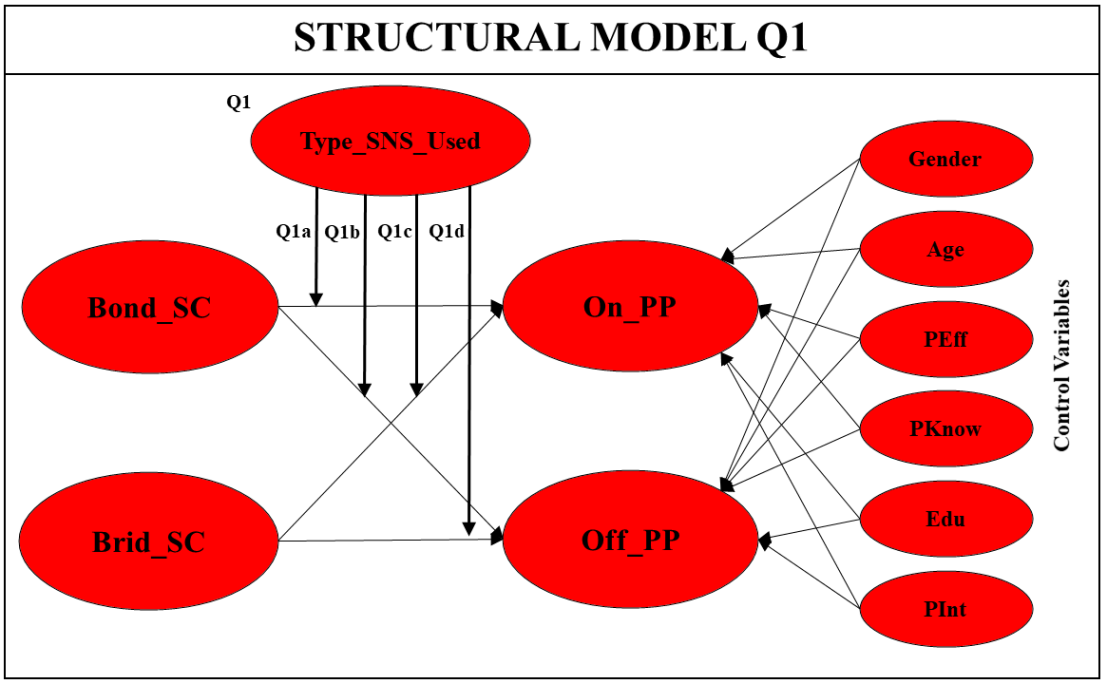
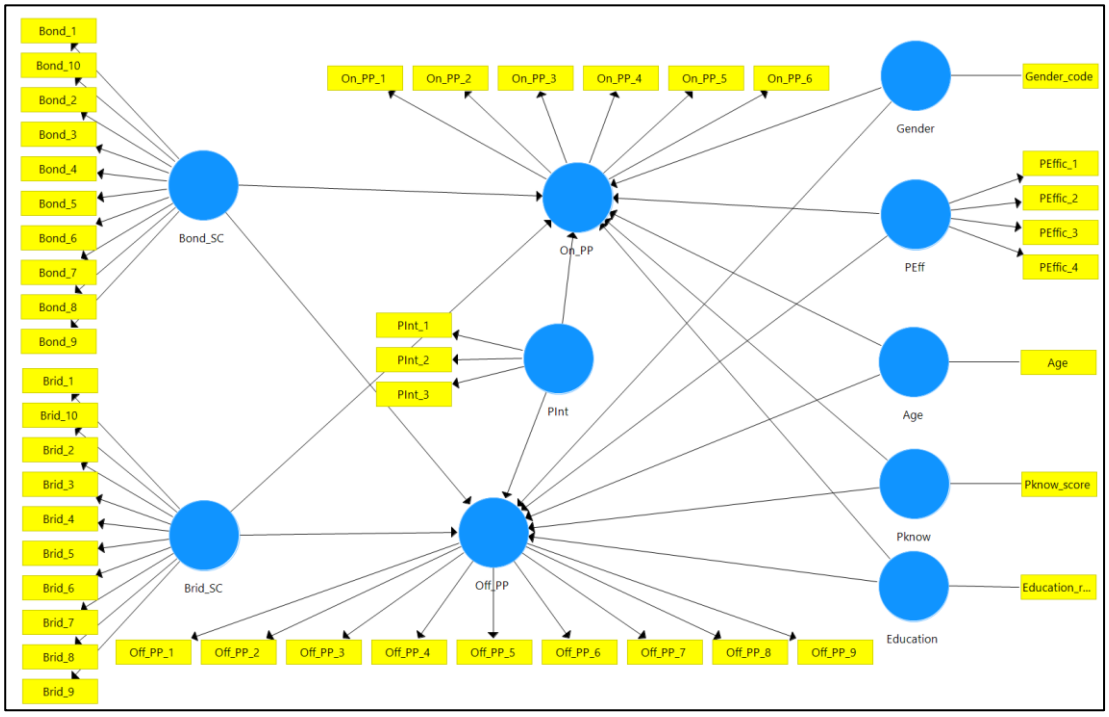


Figure 7.3. Proposed Measurement Model for Research Question Q1.



Note: the moderator variable "Type_SNS_Used" is not represented in the measurement model as it is employed as grouping variable for the Permutation test.

The next few Sections (and relating sub-sections) are organised as follows. Section 7.1.1 and its sub-sections deal with data screening. Section 7.1.2. discusses the technique of analysis, the options and the parameter settings required to run the PLS-SEM algorithm. Section 7.1.3 and its sub-sections assess the internal consistency, reliability, convergent validity and the discriminant validity of the measurement model. Section 7.1.4 assesses the structural model predictive capability and accuracy and provides the results of the MGA by mean of permutation test employed to ascertain the moderating effect of "Type_SNS_Used". Also, CMB empirical test and post-hoc Power analysis are run.

7.1.1. DATACOLLECTION AND SCREENING

The third stage of the systematic procedure for applying PLS-SEM consist of data collection and screening (Hair et al., 2017). Details about instrument and methods of data collection were provided in Chapter 6. Hence, this Section and its sub-sections outline the procedures for screening the data and for dealing with any missing values (Section 7.1.1.1), suspicious response patterns (Section 7.1.1.2) descriptive statistics and outliers (Section 7.1.1.3) (Tabachnick and Fidell 2007, Hair, et al., 2010).

7.1.1.1. MISSING DATA

The collected data, especially when using survey instruments, may present some missing values due to errors in data-entering, data-collection or simply due to the purposely or inadvertently omission made by the respondents (Hair et al., 2010). This might affect the validity and the reliability of the study depending on the amount of missing data values and their patterns.

This study presents no missing data because it took a forced answer approach to the questions. Although this approach may spur some people to leave the survey, research suggest that it will help the respondents to complete the questionnaire "*because more often than not the reason for skipping questions is inadvertence*" (Hair et al., 2017: p. 57). However, a forced-answer approach may produce inaccurate data because people may lie to go ahead with the survey and skip sensitive questions. Nonetheless, this study employs a panel from the data collection agency Pure Profile and a forced answer approach should not represent a problem. Indeed, potential panel recruits must provide

sensitive information like their demographics (gender, income, age), their political beliefs or their use of the internet when enlisting. Therefore, most of the information required for this survey had already been made available by the respondents willingly. Moreover, following Rea and Parker (2014) the questionnaire included some reliability checks to minimise any problems with the forced-answer approach (see Chapter 6, Section 6.3.3.1).

7.1.1.2. SUSPICIOUS RESPONSE PATTERNS

A further step involved in data screening is the analysis of suspicious response patterns in the data collected. Firstly, the data was screened to eliminate all respondents who failed to answer the reliability check questions like "Please, select strongly agree for this statement (this is a system check)". Next, all respondents who showed inconsistent response patterns were highlighted. For instance, in the Political Interest scale (Table 6.6, Chapter 6) those who answered that they were strongly interested in local community affairs (item 1) and also in national politics (item 2) but that in general they were not interested in politics (item 3) were considered not reliable and considered for removal. The literature review highlighted that high levels of Political Participation are positively correlated with political interest (Krueger, 2006; Melo and Stockemer, 2014; Pattie et al., 2004; Skoric et al. 2009; Verba et al., 1995; Wolfinger and Rosenstone, 1980). Therefore, all the respondents displaying high levels of participation in politics but very low interest in politics raised a red flag and were considered for removal. Overall, only 6 respondents exhibited such inconsistent patterns and were discarded.

Following Hair et al. (2017) and Field (2013), the dataset was then visually examined in excel to identify straight lining, diagonal lining and alternating extreme pole responses. Although several respondents (~10% of the sample) showed some straight lining in some scales of the questionnaire, no one was dropped from the study. This is because their response patterns were consistent and because they passed all other reliability checks meaning that their answers were likely to be genuine. For instance, respondents who reported low levels of Offline Political Participation answering all zeros or one to many of the items of the scale but showed also low levels of political interest, political knowledge and political self-efficacy were considered reliable. So, although

some respondents showed straight lining, as long as their answers were consistent with previous research findings and they passed all reliability check questions they were retained in the study. Hence, the final number of respondents was 1212.

7.1.1.3. DESCRIPTIVE STATISTICS, DATA DISTRIBUTION AND OUTLIERS

The demographics of the entire sample (E_S), Facebook users only (F_U), Twitter users only (T_U), Facebook and Twitter combined users (F+T_U) are showed in Table 7.1, Table 7.2, Table 7.3 and Table 7.4.

Table 7.1. Sample Count.

SNS_Used	Count	% of Total Count
F_U	432	35
T_U	383	32
F+T_U	397	33
Total (E_S)	1212	100

Table 7.2. Demographic Characteristics of E_S, F_U, T_U and F+T_U Samples.

SNS_Used	Gender	Education_label	Avg. Age	Count	% of Total Count
E_S	Female	High education	38	268	22
		Low education	42	380	31
		Total	40	648	53
	Male	High education	44	271	23
		Low education	44	293	24
		Total	44	564	47
	Total	Whole Sample	42	1,212	100
F_U	Female	High education	41	74	17
		Low education	46	169	39
		Total	44	243	56
	Male	High education	49	87	20
		Low education	51	102	24
		Total	50	189	44
	Total	Whole Sample	47	432	100
T_U	Female	High education	38	99	26
		Low education	38	99	26
		Total	38	198	52
	Male	Low education	38	91	24
		High education	39	94	24
		Total	39	185	48
	Total	Whole Sample	38	383	100
F+T_U	Female	High education	35	95	24
		Low education	41	112	28
		Total	38	207	52
	Male	High education	43	90	23
		Low education	43	100	25
		Total	43	190	48
	Total	Whole Sample	40	397	100

In order to establish the representativeness of Pure Profile panel, the composition of the sample was checked against the characteristics of the general UK population. Overall, the percentages of females (53%) and males (47%) in our sample are very close to the proportions of the general UK population (51% of females and 49% of males) (Statista, 2021b). Such proportion is fairly constant across all the SNSs groups analysed in this study and is line with the general trend of Facebook users in UK where females constitute a higher percentage of Facebook users (53%) compared to males (47%) (Statista, 2021a). These proportions are very close to those of our sample (56% Females and 44% males Facebook users). However, our Twitter sample does not mirror the gender proportion of the UK population where males represent the 56% of users (Ipsos, 2018) against the 44% of our sample. Also, the average age of the sample (42 years) is similar to the age reported by the ONS (Office for National Statistics) in 2019 which

found an average age of 40.3 years for the UK population (ONS, 2019). Notably, in our sample Facebook users are the oldest (*M* = 47) and Twitter users the youngest (*M* = 38). This seems to mirror once again the trend of the UK population which sees a higher percentage of elderly people using Facebook rather than Twitter (Ipsos, 2018). However, the level of education of respondents of our sample with 45% of high educated people (university degree) and 55% of low educated people does not mirror the percentages provided by the ONS (2013)[2] which is closer to 38% of people who actually obtained at least a bachelor's degree. Hence, any generalization of findings should be made with caution considering the high and positive influence of education levels on Political Participation (see Chapter 5).

Also, demographics are provided for the samples obtained from the quartile split procedure. Indeed, Facebook users, Twitter users and Facebook and Twitter users combined were split into three subgroups to allow comparisons for the moderation effect of the variable "Type_SNS_Used" and "Comb_Use_SNSs" when controlling for "Int_SNS_Use". The quartiles split method on the "Int_SNS_Use" variable allowed for a trichotomous categorisation of users in Heavy (all those users above the 3rd quartile) Mild (all those users between the 1st and the 3rd quartile) and Light (all those users below the 1st quartile). As a rule of thumb, the quartiles values should not be included into any of the subgroups created (Field, 2013; Henseler and Fassott, 2010). Accordingly, the number of respondents dropped to 369 for both F_U and T_U and to 164 for F+T_U obtaining a sample of 902 respondents split into nine groups (Table 7.3).

Table 7.3. Sample Count of Heavy, Mild and Light users of F_U, T_U and F+T_U.

Sample	Heavy Users	Mild Users	Light Users	Grand Total
F_U	108	162	99	369
T_U	88	186	95	369
F+T_U	41	78	45	164

[2] This is the most up-to-date reliable source we could find for education levels in the UK for the general population.

Table 7.4. Sample Percentage of Heavy, Mild and Light users of F_U, T_U and F+T_U.

SNS_Used	Heavy Users %	Mild Users %	Light Users %	Grand Total %
F_U	29	44	27	100
T_U	24	50	26	100
F+T_U	25	48	27	100

Demographics on age, gender and level of education of F_U, T_U and F+T_U, divided in heavy, mild and light users are provided in Appendix L.

Although to investigate research question Q1, Q2 and Q3 this study employs PLS-SEM which is a non-parametric statistical method of analysis, Hair et al. (2017) suggest identifying any outliers. This is because some outliers could be due to typing errors, data collection errors or are simply observations that are not part of the intended population (Hair et al., 2017).

"*An outlier is an extreme response to a particular question, or extreme responses to many or all questions*" (Hair et al., 2017: p. 59). In the first case outliers are called univariate, meanwhile in the latter case they are known as multivariate outliers (Tabachnick and Fidell, 2007). Following Field (2013), Hair et al., (2017) and Tabachnick and Fidell, (2007) this study employed graphical techniques such as boxplots to identify univariate outliers and Mahalanobis distance to identify multivariate outliers. Also, descriptive statistics like mean (*M*), median (*Mdn*), mode (*Mode*), minimum (*Min*), maximum (*Max*), standard deviation (*SD*), Skewness (*Skew*) and Kurtosis (*Kurt*) are provided for each item of the constructs of the structural model and for the composite scales to facilitate the identification of the variables that may contain any outliers (Clason and Dormody, 1994; Boone and Boone, 2012; Brown, 2011; Sullivan and Artino, 2013). Although a thorough examination of all the groups involved in the analysis (Table 7.1 and Table 7.3) was conducted, descriptive statistics are provided in Appendix L only for the groups reported in Table 7.1 for reasons of convenience and space. Those statistics are obtained using SPSS 24.0.

To determine the normality of the data the values of kurtosis and skewness were used. The acceptable range of skewness and kurtosis are respectively ± 1 and ± 2 (George

and Mallery, 2020). Reasons for inspecting the normality of data distribution through those values rather than through significance tests of normality were discussed in Chapter, 6, Section 6.5.2. Accordingly, many of the indicators were found to be non-normally distributed. Similarly, Those results were further validated by the visual inspection of the boxplots obtained in SPSS.

We further investigated outliers with respect to their multivariate nature. Multivariate outliers were identified based on the Mahalanobis distance using IBM SPSS 24. The Mahalanobis distance "*is the distance of a case from the centroid of the remaining cases where the centroid is the point created at the intersection of the means of all the variables*" (Tabachnick and Fidell, 2007, p. 74). These distances follow a chi-square distribution. To establish whether an observation is cause for concern the critical value of chi-square for the desired alpha level (i.e., 0.001) and degrees of freedom equal to the number of predictors must be found. Hair et al. (2009) and proposed that Mahalanobis distance should not surpass the critical chi-squared value with degrees of freedom equal to the number of predictors and alpha = 0.001. In this study, the Mahalanobis distance was calculated based on 42 items. The criterion of $p< 0.001$ and critical value of $\chi 2 = 76.084$ were adopted. Accordingly, several multivariate outliers were identified.

However, all the respondents left in the sample at this stage could be considered reliable as they had been already screened for the reliability check questions and for suspicious response patterns. Moreover, further inspection revealed that those extreme observations were not due to any measurement, typing or entry errors (Beckman and Cook, 1983; Hair et al., 2017). Also, following Hair et al. (2017) we checked for any patterns and communality in the outliers' origin related to gender age, etc. which can lead to the formation of subgroups of the sample and explain the outliers' origin. Yet, no common patterns or trends were spotted. For all the reasons reported above the outliers identified in this study were retained as suggested by Hair et al. (2017). Moreover, this research employs the PLS-SEM technique which is a non-parametric analysis based on bootstrapping procedure which can adequately handle the non-normality of the data distributions (Hair, Sarstedt et al. 2014).

7.1.2. ASSESSING PLS-SEM RESULTS OF THE REFLECTIVE MEASUREMENT MODEL FOR Q1

The fourth stage of the systematic procedure to apply PLS-SEM analysis (Figure 7.1) concerns the specification of the appropriate algorithm settings required to estimate the measurement and the structural model. Those were provided at the beginning of this Chapter.

Once the PLS algorithm runs and produces path models estimates, the next step in the systematic procedure proposed by Hair et al. (2017) to apply PLS-SEM consists of assessing the quality of the results of the measurement model (Figure 7.1). The assessment of the measurement model is conducted for all the groups that must be analysed to answer research question Q1. Following best practices in PLS-SEM, as we needed to test the moderating effect of "Type_SNS_Used" through Permutation test the full sample was split into two groups (F_U, n = 432; T_U, n = 383) and the related measurement model were assessed without and with control variables (Figure 7.4 and Figure 7.5 respectively). The aim was to check if the model with the control variables had higher predictive accuracy and relevance than the model with no control variables and determine which one to employ in the Permutation analysis. This process allowed also to establish configural invariance (See Chapter 6, Section 6.5.1.3), while accounting for the principle of parsimony (Field, 2013). Accordingly, if the model with control variables shows no significant improvements in terms of predictive accuracy and relevance, then the model with fewer variables will be further employed in the analysis.

Figure 7.4. Measurement Model with no Control Variables for Research Question Q1.

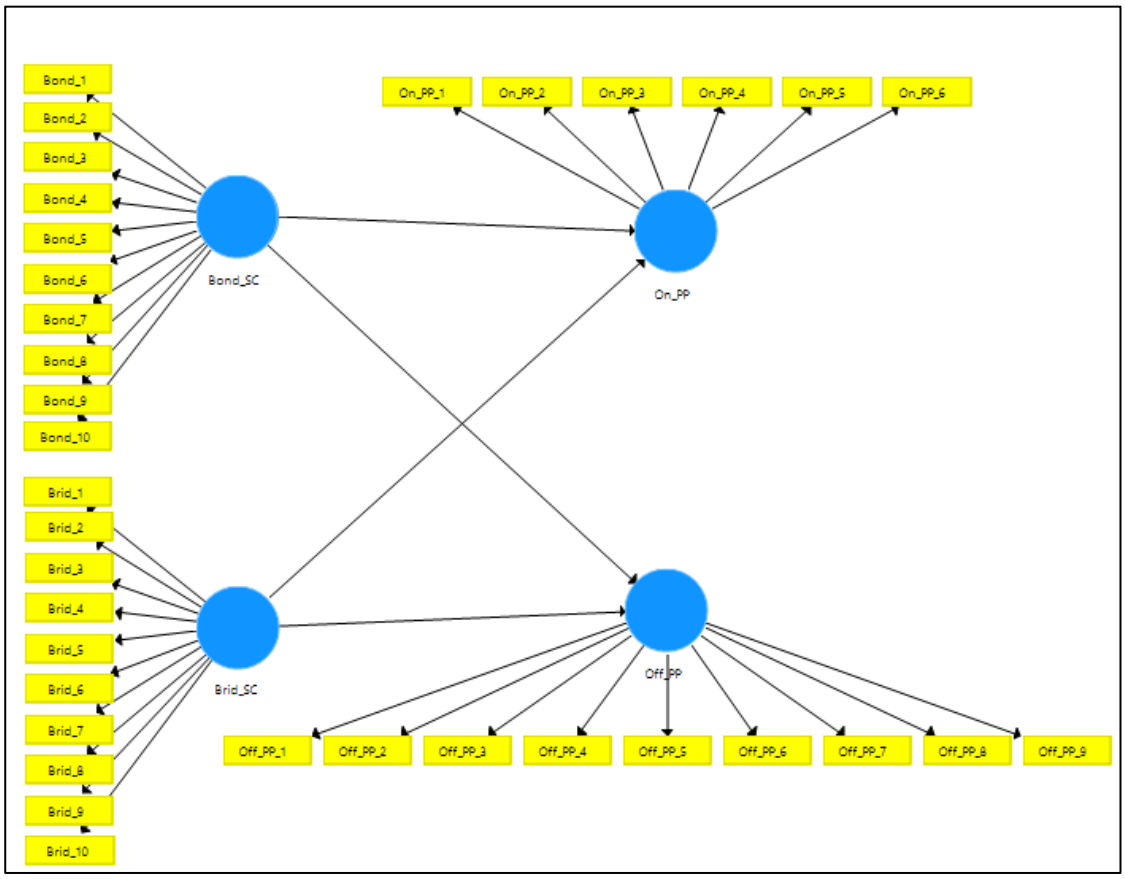


Figure 7.5. Proposed Measurement Model with Control Variables.

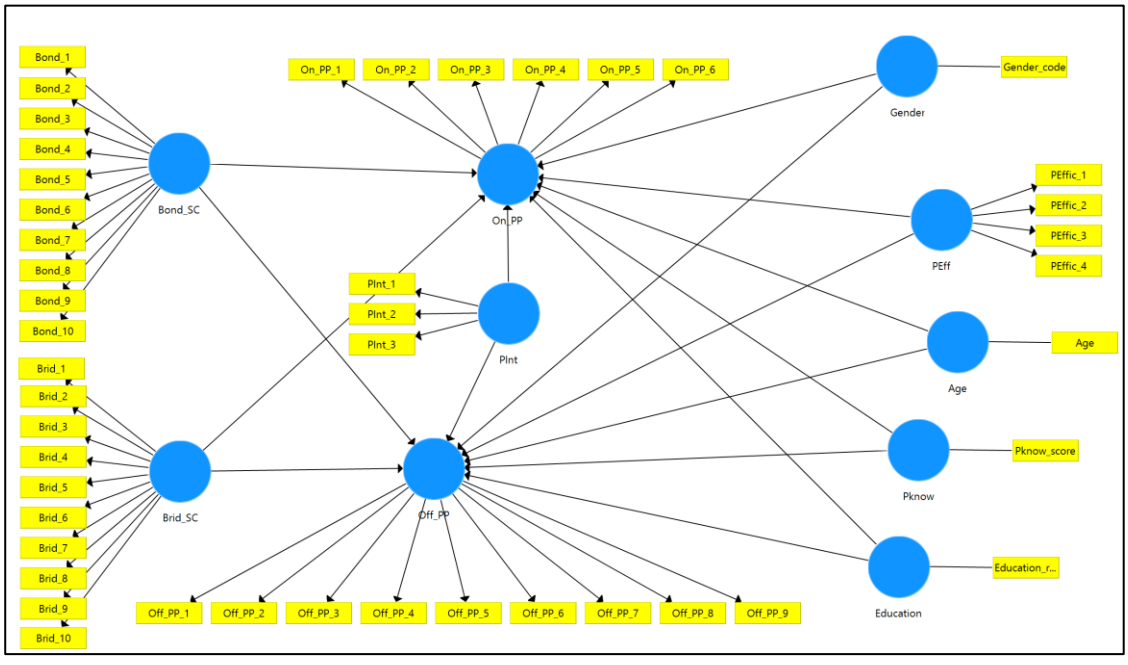


Table 7.5 and Table 7.6 show the metrics for the measurement model assessment of F_U with no control variables, while Table 7.7 and Table 7.8 show the metrics related to the T_U sample with no control variables. Notably, for both models all the reliability coefficients like CA and CR are above the threshold of 0.70 indicating that the measurements are reliable. Also, both models show sufficient discriminant validity. Indeed, all the values of the square roots of the AVE (Fornell-Larcker Criterion) for each item are greater than the inter-construct correlations with other items (Chin 1998). Moreover, each indicator's loading with its construct is higher than its cross-loadings with other constructs (Hair et al., 2017). Also, the values of the HTMT are below 0.90 and the related confidence intervals do not include 1. A full account of the Fornell-Larcker Criterion, the cross-loadings and the HTMT analysis is provided in Appendix M. With respect to the assessment of convergent validity, all the AVEs of the Twitter users' model were above 0.50 indicating that the latent constructs account for at least 50 percent of the variance in the items (Hair et al., 2017). Moreover, all the outer loadings were in an acceptable range (> 0.05) (Chin, 1998; Hair et al., 2010). Also, the communality values were all above the threshold of 0.50 but those of the indicators Off_PP_2 (0.312) and Off_PP_7 (0.417). However, although the communalities of the two indicators were low, they did not affect the AVE of Offline Political Participation (0.588) and therefore the two indicators were retained (Hair et al., 2017). Rather, the measurement model of F_U showed a problem with the AVE of Off_PP which had a value of 0.488.

Table 7.5. Summary Convergent Validity and Internal Consistency Reliability Assessment for Facebook Users Sample (n = 432).

LV	Indicators	Convergent Validity			Internal Reliability	
		Loadings	Communality	AVE	CR	CA
Bond_SC	Bond_1	0.817	0.667	0.654	0.950	0.941
	Bond_2	0.781	0.610			
	Bond_3	0.787	0.619			
	Bond_4	0.749	0.561			
	Bond_5	0.824	0.679			
	Bond_6	0.740	0.548			
	Bond_7	0.804	0.646			
	Bond_8	0.843	0.711			
	Bond_9	0.837	0.701			
	Bond_10	0.892	0.796			
Brid_SC	Brid_1	0.865	0.748	0.703	0.959	0.953
	Brid_2	0.854	0.729			
	Brid_3	0.863	0.745			
	Brid_4	0.844	0.712			
	Brid_5	0.866	0.750			
	Brid_6	0.879	0.773			
	Brid_7	0.807	0.651			
	Brid_8	0.791	0.626			
	Brid_9	0.846	0.716			
	Brid_10	0.766	0.587			
Off_PP	Off_PP_1	0.749	0.561	**0.488**	0.895	0.872
	Off_PP_2	0.627	0.393			
	Off_PP_3	0.598	0.358			
	Off_PP_4	0.657	0.432			
	Off_PP_5	0.700	0.490			
	Off_PP_6	0.651	0.424			
	Off_PP_7	0.670	0.449			
	Off_PP_8	0.813	0.661			
	Off_PP_9	0.791	0.626			
On_PP	On_PP_1	0.748	0.560	0.508	0.861	0.808
	On_PP_2	0.648	0.420			
	On_PP_3	0.703	0.494			
	On_PP_4	0.765	0.585			
	On_PP_5	0.725	0.526			
	On_PP_6	0.682	0.465			

Table 7.6. Discriminant Validity Summary Measurement Model F_U with no Control Variables (n = 432).

Discriminant Validity Summary				
Constructs	Fornell-Larcker	Cross-Loadings	HTMT Ratio	HTMT CI
Bond_SC Brid_SC Off_PP On_PP	Condition met	Condition met	< 0.90	∌ 1

Table 7.7. Summary Convergent Validity and Internal Consistency Reliability Assessment for T_U (n= 383).

LV	Indicators	Convergent Validity			Internal Reliability	
		Loadings	Communality	AVE	CR	CA
Bond_SC	Bond_1	0.898	0.806	0.729	0.964	0.958
	Bond_2	0.890	0.792			
	Bond_3	0.837	0.701			
	Bond_4	0.826	0.682			
	Bond_5	0.874	0.764			
	Bond_6	0.811	0.658			
	Bond_7	0.831	0.691			
	Bond_8	0.817	0.667			
	Bond_9	0.812	0.659			
	Bond_10	0.935	0.874			
Brid_SC	Brid_1	0.848	0.719	0.72	0.963	0.957
	Brid_2	0.847	0.717			
	Brid_3	0.821	0.674			
	Brid_4	0.866	0.750			
	Brid_5	0.831	0.691			
	Brid_6	0.850	0.723			
	Brid_7	0.852	0.726			
	Brid_8	0.813	0.661			
	Brid_9	0.897	0.805			
	Brid_10	0.857	0.734			
Off_PP	Off_PP_1	0.836	0.699	0.588	0.927	0.912
	Off_PP_2	0.559	0.312			
	Off_PP_3	0.815	0.664			
	Off_PP_4	0.765	0.585			
	Off_PP_5	0.824	0.679			
	Off_PP_6	0.763	0.582			
	Off_PP_7	0.646	0.417			
	Off_PP_8	0.832	0.692			
	Off_PP_9	0.816	0.666			
On_PP	On_PP_1	0.829	0.687	0.682	0.928	0.906
	On_PP_2	0.763	0.582			
	On_PP_3	0.828	0.686			
	On_PP_4	0.896	0.803			
	On_PP_5	0.859	0.738			
	On_PP_6	0.771	0.594			

Table 7.8. Discriminant Validity Summary Measurement Model T_U with no Control Variables (n = 383).

Discriminant Validity Summary				
Constructs	Fornell-Larcker	Cross-Loadings	HTMT Ratio	HTMT CI
Bond_SC Brid_SC Off_PP On_PP	Condition met	Condition met	< 0.90	∌ 1

Following Hair et al. (2017) to improve the fitness of F_U measurement model we considered removing the indicators with low loadings. We started with the item that had the lowest outer loading (Hair et al., 2010) that is Off_PP_3. In fact, in reflective measurement models removing an item should not be problematic as by definition, indicators are interchangeable. However, following, Hair et al. (2018) and Latan (2018) suggestions, before removing the indicator Off_PP_3 a CTA-PLS was performed to empirically substantiate the correct specification of Off_PP as reflective for both F_U (Table 7.9) and T_U (Table 7.10). A CTA-PLS was conducted also for OFF_PP of T_U because to carry out multi-group comparison the configural invariance of the constructs across groups must be established (see Chapter 6, Section 6.5.1.3). Accordingly, all models must be measured exactly through the same indicators.

Following the CTA-PLS interpretation guidelines provide on Section 6.5.1.1 all the 90% bias-corrected and Bonferroni-adjusted Confidence Intervals include zero, meaning that the tetrads vanish and that the Off_PP's measurement model is indeed reflective for Both F_U and T_U samples. Hence, the Off_PP_3 indicator was dropped from the analysis and the modified measurement model of F_U was re-estimated to check if the removal had a positive impact on the AVE of Off_PP while retaining sufficient internal reliability (Table 7.11) and discriminant reliability.

Table 7.9. Bias-Corrected and Bonferroni-Adjusted Confidence Intervals of the CTA-PLS analysis for Off_PP of F_U (n = 432).

CTA-Off_PP Non-Redundant Tetrads	CI Low adj.	CI Up adj.	Tetrad Vanish
1: Off_PP_1,Off_PP_2,Off_PP_3,Off_PP_4	-2.698	1.645	Yes
2: Off_PP_1,Off_PP_2,Off_PP_4,Off_PP_3	-2.349	0.779	Yes
4: Off_PP_1,Off_PP_2,Off_PP_3,Off_PP_5	-1.485	1.044	Yes
6: Off_PP_1,Off_PP_3,Off_PP_5,Off_PP_2	-3.044	1.306	Yes
9: Off_PP_1,Off_PP_3,Off_PP_6,Off_PP_2	-2.744	2.508	Yes
10: Off_PP_1,Off_PP_2,Off_PP_3,Off_PP_7	-3.989	1.047	Yes
13: Off_PP_1,Off_PP_2,Off_PP_3,Off_PP_8	-3.320	1.540	Yes
17: Off_PP_1,Off_PP_2,Off_PP_9,Off_PP_3	-3.368	2.194	Yes
20: Off_PP_1,Off_PP_2,Off_PP_5,Off_PP_4	-1.271	0.978	Yes
26: Off_PP_1,Off_PP_2,Off_PP_7,Off_PP_4	-0.823	1.190	Yes
29: Off_PP_1,Off_PP_2,Off_PP_8,Off_PP_4	-0.691	2.355	Yes
33: Off_PP_1,Off_PP_4,Off_PP_9,Off_PP_2	-1.340	1.925	Yes
41: Off_PP_1,Off_PP_2,Off_PP_8,Off_PP_5	-0.967	1.944	Yes
47: Off_PP_1,Off_PP_2,Off_PP_7,Off_PP_6	-1.728	1.033	Yes
49: Off_PP_1,Off_PP_2,Off_PP_6,Off_PP_8	-1.425	2.059	Yes
51: Off_PP_1,Off_PP_6,Off_PP_8,Off_PP_2	-1.902	2.004	Yes
57: Off_PP_1,Off_PP_7,Off_PP_8,Off_PP_2	-2.523	1.201	Yes
109: Off_PP_1,Off_PP_4,Off_PP_5,Off_PP_6	-0.429	1.495	Yes
113: Off_PP_1,Off_PP_4,Off_PP_7,Off_PP_5	-0.469	0.741	Yes
133: Off_PP_1,Off_PP_4,Off_PP_7,Off_PP_9	-1.125	1.219	Yes
137: Off_PP_1,Off_PP_4,Off_PP_9,Off_PP_8	-1.270	2.134	Yes
149: Off_PP_1,Off_PP_5,Off_PP_8,Off_PP_7	-1.065	0.824	Yes
151: Off_PP_1,Off_PP_5,Off_PP_7,Off_PP_9	-0.627	1.078	Yes
161: Off_PP_1,Off_PP_6,Off_PP_9,Off_PP_7	-0.630	1.536	Yes
165: Off_PP_1,Off_PP_8,Off_PP_9,Off_PP_6	-1.417	1.917	Yes
174: Off_PP_2,Off_PP_4,Off_PP_6,Off_PP_3	-1.158	1.518	Yes
231: Off_PP_2,Off_PP_6,Off_PP_8,Off_PP_4	-0.833	1.927	Yes

Table 7.10. Bias-Corrected and Bonferroni-Adjusted Confidence Intervals of the CTA-PLS analysis for Off_PP of T_U (n = 383).

CTA-Off_PP Non-Redundant Tetrads	CI Low adj.	CI Up adj.	Tetrad Vanish
1: Off_PP_1,Off_PP_2,Off_PP_3,Off_PP_4	-4.803	2.286	Yes
2: Off_PP_1,Off_PP_2,Off_PP_4,Off_PP_3	-4.535	1.501	Yes
4: Off_PP_1,Off_PP_2,Off_PP_3,Off_PP_5	-2.494	3.055	Yes
6: Off_PP_1,Off_PP_3,Off_PP_5,Off_PP_2	-8.269	1.151	Yes
9: Off_PP_1,Off_PP_3,Off_PP_6,Off_PP_2	-9.587	0.893	Yes
10: Off_PP_1,Off_PP_2,Off_PP_3,Off_PP_7	-7.378	0.616	Yes
13: Off_PP_1,Off_PP_2,Off_PP_3,Off_PP_8	-5.647	3.350	Yes
17: Off_PP_1,Off_PP_2,Off_PP_9,Off_PP_3	-3.408	2.511	Yes
20: Off_PP_1,Off_PP_2,Off_PP_5,Off_PP_4	-3.000	5.410	Yes
26: Off_PP_1,Off_PP_2,Off_PP_7,Off_PP_4	-1.173	2.544	Yes
29: Off_PP_1,Off_PP_2,Off_PP_8,Off_PP_4	-2.358	3.916	Yes
33: Off_PP_1,Off_PP_4,Off_PP_9,Off_PP_2	-1.169	6.173	Yes
41: Off_PP_1,Off_PP_2,Off_PP_8,Off_PP_5	-0.953	4.254	Yes
47: Off_PP_1,Off_PP_2,Off_PP_7,Off_PP_6	-0.895	3.253	Yes
49: Off_PP_1,Off_PP_2,Off_PP_6,Off_PP_8	-4.374	5.326	Yes
51: Off_PP_1,Off_PP_6,Off_PP_8,Off_PP_2	-0.493	7.671	Yes
57: Off_PP_1,Off_PP_7,Off_PP_8,Off_PP_2	-6.811	0.973	Yes
109: Off_PP_1,Off_PP_4,Off_PP_5,Off_PP_6	-4.441	0.939	Yes
113: Off_PP_1,Off_PP_4,Off_PP_7,Off_PP_5	-3.288	0.281	Yes
133: Off_PP_1,Off_PP_4,Off_PP_7,Off_PP_9	-2.453	1.231	Yes
137: Off_PP_1,Off_PP_4,Off_PP_9,Off_PP_8	-2.276	4.676	Yes
149: Off_PP_1,Off_PP_5,Off_PP_8,Off_PP_7	-1.471	2.924	Yes
151: Off_PP_1,Off_PP_5,Off_PP_7,Off_PP_9	-2.372	3.049	Yes
161: Off_PP_1,Off_PP_6,Off_PP_9,Off_PP_7	-1.625	2.919	Yes
165: Off_PP_1,Off_PP_8,Off_PP_9,Off_PP_6	-4.192	2.291	Yes
174: Off_PP_2,Off_PP_4,Off_PP_6,Off_PP_3	-0.786	4.462	Yes
231: Off_PP_2,Off_PP_6,Off_PP_8,Off_PP_4	-7.245	0.673	Yes

Table 7.11. Summary Measurement Model Assessment Metrics for F_U Sample with no Control Variables and Off_PP_3 Indicator Removed (n= 432).

LV	Indicators	Convergent Validity			Internal Reliability	
		Loadings	Communality	AVE	CR	CA
Bond_SC	Bond_1	0.817	0.667	0.654	0.950	0.941
	Bond_2	0.781	0.610			
	Bond_3	0.787	0.619			
	Bond_4	0.749	0.561			
	Bond_5	0.824	0.679			
	Bond_6	0.739	0.546			
	Bond_7	0.804	0.646			
	Bond_8	0.843	0.711			
	Bond_9	0.837	0.701			
	Bond_10	0.892	0.796			
Brid_SC	Brid_1	0.865	0.748	0.703	0.959	0.953
	Brid_2	0.853	0.728			
	Brid_3	0.863	0.745			
	Brid_4	0.844	0.712			
	Brid_5	0.866	0.750			
	Brid_6	0.879	0.773			
	Brid_7	0.807	0.651			
	Brid_8	0.791	0.626			
	Brid_9	0.846	0.716			
	Brid_10	0.766	0.587			
Off_PP	Off_PP_1	0.742	0.551	0.504	0.890	0.861
	Off_PP_2	0.622	0.387			
	Off_PP_4	0.661	0.437			
	Off_PP_5	0.703	0.494			
	Off_PP_6	0.651	0.424			
	Off_PP_7	0.668	0.446			
	Off_PP_8	0.817	0.667			
	Off_PP_9	0.792	0.627			
On_PP	On_PP_1	0.748	0.560	0.508	0.861	0.808
	On_PP_2	0.648	0.420			
	On_PP_3	0.703	0.494			
	On_PP_4	0.765	0.585			
	On_PP_5	0.725	0.526			
	On_PP_6	0.682	0.465			

Table 7.12. Discriminant Validity Summary Measurement Model F_U with no Control Variables and Off_PP_3 Indicator Removed (n= 432).

Discriminant Validity Summary				
Constructs	Fornell-Larcker	Cross-Loadings	HTMT Ratio	HTMT CI
Bond_SC Brid_SC Off_PP On_PP	Condition met	Condition met	< 0.90	∌ 1

Notably, the AVE of the construct Off_PP increased to 0.504 which is above the recommended threshold of 0.50. Also, CR (0.890) and CA (0.861) values remained within acceptable limits. Similarly, the measurement model of T_U was re-estimated without the problematic indicator (Table 7.13). Results showed good internal consistency reliability, convergent validity and discriminant validity. The Fornell-Larcker Criterion, the cross-loadings and the HTMT tables with related confidence intervals of the new models are provided in Appendix M.

CTA-PLS were run also for all the other constructs of the model (Appendix N). The results supported the reflective specifications of the measurements models of all constructs.

Table 7.13. Summary Measurement Model Assessment Metrics for T_U Sample with no Control Variables and Off_PP_3 Indicator Removed (n = 383).

LV	Indicators	Convergent Validity			Internal Reliability	
		Loadings	Communality	AVE	CR	CA
Bond_SC	Bond_1	0.898	0.806	0.729	0.964	0.958
	Bond_2	0.890	0.792			
	Bond_3	0.837	0.701			
	Bond_4	0.826	0.682			
	Bond_5	0.874	0.764			
	Bond_6	0.810	0.656			
	Bond_7	0.831	0.691			
	Bond_8	0.817	0.667			
	Bond_9	0.812	0.659			
	Bond_10	0.935	0.874			
Brid_SC	Brid_1	0.849	0.721	0.720	0.963	0.957
	Brid_2	0.847	0.717			
	Brid_3	0.821	0.674			
	Brid_4	0.866	0.750			
	Brid_5	0.831	0.691			
	Brid_6	0.850	0.723			
	Brid_7	0.852	0.726			
	Brid_8	0.813	0.661			
	Brid_9	0.897	0.805			
	Brid_10	0.857	0.734			
Off_PP	Off_PP_1	0.820	0.672	0.583	0.917	0.897
	Off_PP_2	0.553	0.306			
	Off_PP_4	0.780	0.608			
	Off_PP_5	0.833	0.694			
	Off_PP_6	0.782	0.612			
	Off_PP_7	0.644	0.415			
	Off_PP_8	0.831	0.691			
	Off_PP_9	0.815	0.664			
On_PP	On_PP_1	0.829	0.687	0.682	0.928	0.906
	On_PP_2	0.763	0.582			
	On_PP_3	0.828	0.686			
	On_PP_4	0.896	0.803			
	On_PP_5	0.859	0.738			
	On_PP_6	0.771	0.594			

Table 7.14. Discriminant Validity Summary Measurement Model T_U with no Control Variables and Off_PP_3 Indicator Removed (n= 383).

Discriminant Validity Summary				
Constructs	Fornell-Larcker	Cross-Loadings	HTMT Ratio	HTMT CI
Bond_SC Brid_SC Off_PP On_PP	Condition met	Condition met	< 0.90	∌ 1

Once the measurement models of F_U and T_U samples were assessed with no control variables, an assessment of the measurement models with control variables (Figure 7.5) was performed following the same rationale. According to Hair et al. (2017) control variables that can account for some of the target construct's variation must be included in the analysis to check their effects on the main relationships being tested but usually are not further interpreted. A summary is reported in Table 7.15, Table 7.16 and Table 7.17. Notably, all measurement models of F_U and T_U showed good internal consistency reliability, convergent and discriminant validity.

Table 7.15. Internal Consistency Reliability Summary F_U and T_U with control variables and Off_PP_3 removed.

Internal Consistency Reliability Summary				
	F_U		T_U	
Constructs	CA	CR	CA	CR
Bond_SC	0.941	0.950	0.958	0.964
Brid_SC	0.953	0.959	0.957	0.963
Off_PP	0.861	0.891	0.897	0.918
On_PP	0.808	0.862	0.906	0.928
PEff	0.889	0.923	0.906	0.934
PInt	0.891	0.933	0.919	0.949

Table 7.16. Convergent Validity Summary F_U and T_U with control variables and Off_PP_3 removed.

Convergent Validity Summary				
Constructs	**F_U and T_U**		**F_U**	**T_U**
	Loadings	Communality	AVE	AVE
Bond_SC	Adequate	Adequate	0.654	0.729
Brid_SC			0.703	0.720
Off_PP			0.508	0.586
On_PP			0.511	0.682
PEff			0.750	0.780
PInt			0.823	0.861

Table 7.17. Discriminant Validity Summary F_U and T_U with control variables and Off_PP_3 removed.

Discriminant Validity Summary				
	F_U and T_U			
Constructs	Fornell-Larcker	Cross-Loadings	HTMT	HTMT CI
Bond_SC	Condition met	Condition met	< 0.90	∌ 1
Brid_SC				
Off_PP				
On_PP				
PEff				
PInt				

Having ascertained that the measurement models with and without control variables are reliable and show good convergent and discriminant validity, in the next Section we assess and compare the related structural models.

7.1.3. ASSESSING PLS-SEM RESULTS OF THE STRUCTURAL MODEL FOR Q1

Following Hair et al. (2017) the Structural (inner) model (Figure 7.2) was assessed for predictive relevance, accuracy and paths' significance through the criteria reported in Appendix K. Also, to finalise the analysis and control for type II error we performed post-hoc statistical power analysis (see Chapter 6, Section 6.5.1.2) as a function of the significance level α, sample size, and variables' effect size f^2 using the G*Power 3.1.9 software (Faul et al., 2007, 2009). Moreover, for the purpose of comparing different models' predictive accuracy and relevance while retaining

acceptable levels of explanatory power and chose the one (with or without control variables) to further employ in the Permutation analysis, the selection criteria discussed in Chapter 6, Section 6.5.1.2 and summarised in Appendix K were employed. Further, a FCA was conducted to empirically test for CMB (See section 6.3.5).

We first assessed the structural model without control variables of F_U sample. The first step to assess the structural model is to check for the presence of any collinearity issues, by examining the VIF of all sets of predictor constructs. Table 7.18 reports the VIF values of all combinations of endogenous constructs (represented by the columns) and corresponding exogenous variables (represented by the rows). Notably, the VIF value is below the threshold of 5 (Hair et al., 2017). Therefore, collinearity among the exogenous variables is not a critical issue.

Table 7.18. VIF Values of the Structural Model of F_U with no Control Variables (n = 432).

VIF Sample F_U no Control Variables	
	Off_PP/On_PP
Bond_SC/Brid_SC	1.444

Then, the R^2 and the R^2adj values are assessed (Table 7.19). Following the rule of thumb provided in Appendix K the R^2 values of Off_PP (0.107) and On_PP (0.130) can be considered weak. R^2adj is employed later for model comparison.

Table 7.19. Coefficients of Determination of the Structural Model of F_U with no Control Variables (n = 432).

Coefficient of Determination R^2 Sample F_U no Control Variables		
	R Square	**R Square Adjusted**
Off_PP	0.107	0.102
On_PP	0.130	0.126

Following Ohtani (2000) and Streukens and Leroi-Werelds (2016), we further investigated the R^2 with a measure of precision to assess whether the R^2 values were significantly different from zero through BCa bootstrap CI. Table 7.20 shows that the R^2

for both On_PP ($p < 0.001$) and Off_PP ($p = 0.001$) are significantly different from 0. Hence, the model has significant explanatory capacity for both endogenous variables.

Table 7.20. BCa Confidence Intervals of the R^2 of F_U with no Control Variables (n = 432).

BCa Confidence Intervals R^2 Significance								
	Original Sample (O)	Sample Mean (M)	Bias	2.5%	97.5%	Std. Dev.	T Stat.	P Values
Off_PP	0.107	0.115	0.009	0.052	0.166	0.032	3.362	0.001
On_PP	0.130	0.140	0.010	0.069	0.187	0.031	4.164	0.000

The next step to assess the structural model consists of examining the f^2 effect size of the exogenous constructs on the endogenous variables (Table 7.21). Following Cohen (1988) guidelines, the impact of Bond_SC on Off_PP ($f^2 = 0.004$) and On_PP ($f^2 = 0.002$) can be considered negligible meanwhile Brid_SC has between a small and a medium effect size on both Off_PP ($f^2 = 0.101$) and On_PP ($f^2 = 0.088$). Then the path coefficients in terms of their sign, magnitude and significance are assessed by mean of BCa CI (Table 7.22 and Table 7.23).

Table 7.21. Effect Size f^2 of the Structural Model of the Sample of F_U with no Control Variables (n = 432).

Effect Size f^2 Sample Facebook Users no Control Variables		
	Off_PP	On_PP
Bond_SC	0.004	0.002
Brid_SC	0.101	0.088

Table 7.22. Path Coefficients of the Structural Model of the Sample of F_U with no Control Variables (n = 432).

Paths Coefficients Sample Facebook Users no Control Variables		
	Off_PP	On_PP
Bond_SC	-0.074	0.045
Brid_SC	0.362	0.333

Table 7.23. Confidence Intervals BCa of the Path Coefficients of the Structural Model of F_U with no Control Variables (n = 432).

Path Coefficients BCa CI Sample Facebook Users no Control Variables					
	Original Sample (O)	**Sample Mean (M)**	**Bias**	**2.50%**	**97.50%**
Bond_SC -> Off_PP	-0.074	-0.068	0.006	-0.190	0.025
Bond_SC -> On_PP	0.045	0.051	0.006	-0.057	0.127
Brid_SC -> Off_PP	0.362	0.366	0.005	**0.240**	**0.464**
Brid_SC -> On_PP	0.333	0.339	0.006	**0.229**	**0.421**

All the exogenous constructs have a positive effect on Off_PP and On_PP except for Bond_SC on Off_PP (β = -0.074). The relationships of the structural model are all significant at 5% significant level but Bond_SC → Off_PP**,** β = -0.074**,** 95% BCa CI [-0.190, 0.025] and Bond_SC → On_PP, β = 0.045, 95% BCa CI [-0.057, 0.127]. However, to control for Type II error a post-hoc statistical power test is performed to compute achieved power and minimise the chances of getting false negatives. To this purpose, the G*power software 3.1.9. is employed. The "linear multiple regression: fixed model, Single regression coefficient" test is selected to ascertain the true significance of the single effects of Bond_SC on Off_PP and Bond_SC on On_PP (Faul et al., 2009). Inserting the respective effect size (f^2 = 0.004 and f^2 = 0.002) the alpha value = 0.05, n = 432 the software yields a power (1-β) of 26% and 15% respectively. According to Cohen (1988) we do not have enough power to claim that no effect would be present in the population.

Next, the blindfolding procedure is run to assess the predictive relevance of the path model through the Q^2 index (Hair et al., 2017). An omission distance (D) of seven (7) is specified (Hair et al., 2017) Table 7.24 shows the results of the blindfolding procedure. Notably all Q^2 values are above the threshold of zero. and provide support for the model predictive relevance with respect to both Off_PP and On_PP.

Table 7.24. Predictive Relevance Q2 of the Structural Model of the Sample of Facebook Users with no Control Variables (n = 432).

Blindfolding procedure Facebook Users no Control Variables - Distance 7			
	SSO	SSE	Q² (=1-SSE/SSO)
Off_PP	3,456.00	3,297.73	0.046
On_PP	2,592.00	2,446.06	0.056

Finally, Table 7.25 summarises the results of the q^2 effect size that is computed manually following the formula (Equation 6.1) provided in Section 6.5.1.2. Following the rule of thumb the q^2 effect size for the relationships Bond_SC→Off_PP (q^2= 0.002) and Bond_SC-→On_PP (q^2= 0.000) can be considered negligible. Rather, Brid_SC shows a small predictive relevance on both Off_PP (q^2= 0.042) and On_PP (q^2= 0.037).

Table 7.25. *q*2 Effect Size of the Sample of Facebook Users with no Control Variables (n = 432).

q^2 Effect Size Facebook Users no Control Variables		
	OFF_PP	On_PP
Bond_SC	0.002	0.000
Brid_SC	0.042	0.037

Moreover, following the suggestions of Hair et al. (2017) and Henseler et al. (2014) model fit measures (SRMR and RMS_{theta}) are provided in Table 7.26. According to their guidelines we can conclude that the model shows sufficient model fit with (SRMR = 0.099 and RMS_{theta} = 0.105). Following Shmueli et al. (2016) and Sharma et al. (2019a) in-sample and out-of-sample predictive accuracy measures are reported in Table 7.26. As noted earlier, these criteria cannot be interpreted as stand-alone statistics as they are relative rather than absolute measures and therefore will be used only as a mean for model comparison.

Table 7.26. In-Sample and Out-of-Sample Model Selection Criteria and Model Fit measures of the Sample of Facebook Users with no Control Variables (n = 432).

Endogenous Variables	Model Selection Criteria						
	In-Sample Criteria			Out-of-Sample Criteria		Model fit measures	
	AICu	AICc	BIC	RMSE	MAD	RMS_{Theta}	SRMR
Off_PP	-40.672	390.411	-31.477	0.976	0.635	0.105	0.099
On_PP	-51.990	379.093	-42.795	0.971	0.640		

Finally, following Cock (2015) a FCA is provided in Table 7.27 to empirically check for the presence of CMB. Notably, all the VIF values are below the 3.3 threshold. Hence, CMB is not an issue for the analysis.

Table 7.27. CMB Assessment Through Multicollinearity for the Sample of Facebook Users with no Control Variables (n = 432).

CMB Full VIF Assessment				
	Bond_SC	**Brid_SC**	**Off_PP**	**On_PP**
Bond_SC		1.055	1.471	1.441
Brid_SC	1.126		1.590	1.569
Off_PP	1.393	1.722		1.108
On_PP	1.504	1.787	1.139	

Following the above procedures, we further assessed the structural model for T_U (n = 383) sample. Overall, the analysis reveals that there are no problems of Collinearity (all VIF < 5). The model has between a weak and a moderate predictive accuracy and significant explanatory power for both Off_PP [(R^2 = 0.163), 95% BCa CI (0.097, 0.219), p < 0.05] and On_PP [(R^2 = 0.210), 95% BCa CI (0.143, 0.269), p < 0.05]. All the exogenous constructs have a positive effect on both Off_PP and On_PP and their relationships are all significant at 5% significance level. Specifically:

- Bond_SC → Off_PP, β = -0.222**,** 95% BCa CI [-0.119, 0.315], f^2 = 0.053.
- Bond_SC → On_PP, β = 0.246), 95% BCa CI [-0.145, 0.342], f^2 = 0.069.

- Brid_SC → Off_PP [(β = 0.272), 95% BCa CI [0.167, 0.280], f^2 = 0.079.
- Brid_SC → On_PP [(β = 0.314), 95% BCa CI [0.214, 0.405], f^2 = 0.112.

The model shows predictive relevance for both Off_PP (Q^2 = 0.084) and On_PP (Q^2 = 0.136). However, the relative impact of predictive relevance of Bond_SC is small for Off_PP (q^2= 0.025) and On_PP (q^2= 0.042). Also, Brid_SC has a small effect size in term of predictive relevance on Off_PP (q^2= 0.037) but shows an effect size between small and medium for On_PP (q^2= 0.065). Furthermore, the model shows sufficient model fit (SRMR = 0.098 and RMS_{theta} = 0.108). There is no empirical evidence of issues concerning the CMB as all the VIF values of the latent constructs are below 3.3.

The structural models with control variables for F_U and T_U samples were assessed using the above rationale. Noteworthy, all the models with control variables of F_U and T_U samples did not show any problems of Multicollinearity and were free from CMB. Also, all the control variables were retained even if their influence was non-significant. This is due to the fact that their inclusion stemmed from theoretical grounds based on Political Participation theories and their inclusion increase the validity of the study. Also, following Hair et al. (2013) "*regardless of whether those control variables are significant or not, the results for control variables are usually not further interpreted*" (p. 3).

For the purpose of this analysis, a summary of statistics of all the models (with control and no control variables) like R^2, R^2_{adj}, Q^2, model fit measures and in-sample and out-of-sample measures of predictive relevance are reported in Table 7.28 and Table 7.30 for F_U and T_U respectively. Following Hair et al. (2017), Sharma et al. (2019a,b) and Shmueli et al. (2016) the aim is to compare and select those models that show higher predictive accuracy and relevance while retaining good model fit and further employ them to analyse the moderation effects of "Type_SNS_Used" by means of Permutation test. Evaluating predictive performance is recognized as a useful practice for theory building and validation purposes (Shmueli et al., 2016).

Notably, for both On_PP and Off_PP in the F_U sample, the model that includes the control variables shows better in-sample and out-of-sample predictive relevance since it has lower AICu, AICc, BIC, RMSE and MAD. Also, the Q^2 index of predictive power, R^2 and R^2_{adj} are higher for the model with control variables. Moreover, the change in R^2

due to the introduction of the control variables is significant for both Off_PP ($F_{6,423}$ = 13.892, p < 0.05) and On_PP ($F_{6,423}$ = 7.733, p < 0.05) (Table 7.29). Only the value of the RMS_{Theta} (0.105) indicates that the model with no control variables is a better fit of the data. However, the difference with the RMS_{Theta} of the model with control variables is 0.001. In light of all the considerations made above the model with control variables included is considered superior in terms of predictive performance and fit of the data when compared to the model with no control variables for the F_U sample.

Table 7.28. Model Comparison with and without Controls Variables for F_U (n = 432).

Model Comparison of the Sample Facebook Users With and Without Control Variables											
Endogenous Variables	**Model**	**In-Sample Measures**					**Out-of-Sample Measures**			**Model fit measures**	
		R^2	**R^2adj**	**AICu**	**AICc**	**BIC**	**RMSE**	**MAD**	**Q^2**	**RMS_{Theta}**	**SRMR**
Off_PP	No Controls	0.107	0.102	-40.672	390.411	-31.477	0.976	0.635	0.046	0.105	0.099
	Controls	0.254	0.240	-100.682	324.746	-73.161	0.907	0.620	0.120	0.106	0.076
On_PP	No Controls	0.130	0.126	-51.990	379.093	-42.795	0.971	0.640	0.056	0.105	0.099
	Controls	0.216	0.201	-79.025	346.402	-51.504	0.931	0.621	0.098	0.106	0.076

Table 7.29. F test for Significance of the Change in R2 Between the Models Without and With Control Variables of F_U (n = 432).

Significance Test R^2				
LV	**Model**	**F test**	**F critical**	**Sig.**
Off_PP	No Controls Controls	13.892	2.120	Yes
On_PP	No Controls Controls	7.733	2.120	Yes

Finally, Table 7.30 provides the values of the selection criteria of the model with and without control variables for the T_U sample. Notably, the model with control variables shows higher in-sample and out-of-sample predictive accuracy and relevance for Off_PP while retaining a better fit of the data compared to the model with no control variables. Moreover, the change in R^2 (Table 7.31) due to the introduction of the control variables is significant for Off_PP ($F_{6,374} = 16.478$, $p < 0.05$).

However, for the endogenous variable On_PP, although the model fit measures show that the model with control variables ($RMS_{Theta} = 0.100$, SRMR = 0.077) is a better fit than the one with no control variables ($RMS_{Theta} = 0.108$, SRMR = 0.098), only the out-of-sample criteria and the R^2 (0.210) indicate that the model has higher predictive accuracy and relevance compared to the model with no control variables. The remaining measures of in-sample predictive relevance show better values for the model with no control variables. Also, the F test yield not significant results for On_PP ($F_{6,374} = 0.880$, $p > 0.05$). The priority that researcher should give to all the in-sample and out-of-sample criteria whether they provide discordant results should be based on theoretical and/or empirical aims of the research projects (Sharma et al., 2019a,b). Provided that to compare models by means of Permutation test we need to establish configural invariance which implies that measurement models across groups must have identical indicators and latent variables (Hair et al., 2017) we retain the model with control variables also for On_PP in T_U. Indeed, the T_U model without control variables shows poor fit compared to the model with control variables included. Also, according to Shmueli et al. (2016) a good model must be able to predict new cases and out-of-sample prediction criteria should be preferred to the in-sample metrics.

Table 7.30. Model Comparison with and without Controls Variables for T_U (n = 383).

Model Comparison of the Sample Twitter Users With and Without Control Variables											
Endogenous Variables	Model	In-Sample Measures					Out-of-Sample Measures			Model fit measures	
		R^2	R^2adj	AICu	AICc	BIC	RMSE	MAD	Q^2	RMS_{Theta}	SRMR
Off_PP	No Controls	0.163	0.158	-60.011	322.083	-51.179	0.932	0.687	0.084	0.108	0.098
	Controls	0.338	0.324	-131.910	244.574	-105.485	0.845	0.606	0.186	0.100	0.077
On_PP	No Controls	0.210	0.206	-82.140	299.954	-73.308	0.915	0.694	0.136	0.108	0.098
	Controls	0.221	0.204	-69.550	306.933	-43.126	0.901	0.681	0.142	0.100	0.077

Table 7.31. F test for Significance of the Change in R2 Between the Models Without and With Control Variables of T_U (n = 383).

Significance Test R^2				
LV	Model	F test	F critical	Sig.
Off_PP	No Controls Controls	16.478	2.122	Yes
On_PP	No Controls Controls	0.880	2.122	No

In the next sections the model of F_U and T_U users will be tested for measurement invariance and then compared through permutation test.

7.3.1.1. ASSESSMENT OF MODERATION EFFECTS THROUGH PERMUTATION TEST.

This Section provides the results of the MGA Permutation test carried out to ascertain any moderating effects of the categorical variable "Type_SNS_Used" (two categories, Facebook and Twitter) over the relationships between Bond_SC and Brid_SC with On_PP and Off_PP.

Following the MGA Permutation procedure discussed in Chapter 6, Section 6.5.1.3, measurement invariance among the constructs of the groups must be established through the MICOM procedure before comparing groups parameters (Hair et al., 2017; Henseler et al., 2016). This involves:

1. **Establishing configural invariance.**
2. **Establishing compositional invariance.**
3. **Ensuring equality of composite mean values and variances**.

Consistently with Henseler et al. (2016) *configural invariance* was assessed through a qualitative inspection of the model composite, ensuring that measurement model specifications and algorithm computation settings for their assessment were the same across F_U and T_U samples.

To test for *compositional invariance*, we run a permutation test proposed by Henseler et al. (2016) and Hair et al. (2017) to examine whether the correlation between composite score of the same constructs across F_U and T_U samples is equal to one. To confirm compositional invariance the permutation test should yield a *p* value larger than 0.05. However, because at a later stage to answer research question Q3 the two groups of F_U and T_U are compared against the sample of F+T_U, we adopted the Sidak correction discussed in Chapter 6 in Section 6.5.2 to control for Type I error inflation due to multiple comparisons. Hence, since we have three groups (m), at a starting level of significance of 0.05 we computed the Sidak correction through the formula $1-(1-\text{alpha})^{1/m}$ which yields a significance level of 0.017. Table 7.32 reports the results of the compositional invariance test. Notably, all the 1.7% quantiles of the empirical distribution of the correlations between the composite scores of F_U and T_U samples

are smaller than or equal to the original correlations and all p values are not significant. Therefore, compositional invariance is established.

Table 7.32. Compositional Invariance Constructs of Facebook Users (n = 432) and Twitter Users (n = 383).

Compositional Invariance Between Facebook Users and Twitter Users				
	Original Correlation	**Correlation Permutation Mean**	**1.7%**	**Permutation p-Values**
Bond_SC	0.997	0.998	0.996	0.676
Brid_SC	0.999	0.999	0.999	0.350
Off_PP	0.998	0.997	0.996	0.232
On_PP	0.999	0.999	0.997	0.604
PEff	0.998	0.998	0.998	0.250
PInt	1.000	0.999	0.999	0.244

Age and Pknow are not included in the analysis as they are single items constructs and by definition single items constructs have single outer relationship of 1 (Hair et al., 2017).

Once configural and compositional invariance are established partial measurement invariance is confirmed and a Permutation test is feasible (Hair et al., 2017).

However, the MICOM procedure includes a further step to test whether the means and the variances of the latent constructs across groups are equal. In that case the researcher can confirm full measurement invariance and a pooled data analysis can be conducted on the entire dataset. Table 7.33 provides the lower (0.85%) and the upper (99.15%) boundaries of the 98.3% CIs of the scores means differences. If the CIs do not include the original difference in mean values, then it can be concluded that there is significant difference in the composites' mean scores across the two groups. To further validate the results, the relative p values can be examined . If the p value is below 0.017 then the difference of the composite means values of different groups is significant. Notably, for the variables Age, Bond_SC, Off_PP, On_PP, PEff, and PInt the CIs do not include the original mean difference and the relative p values are below the 0.017 threshold.

Table 7.33. Equality of Composite Mean Values for Facebook (n = 432) and Twitter (n = 383) Samples.

Equality of Composite Mean Values for Facebook and Twitter Samples						
	Mean - Original Difference [Groups_F_U_(2) – T_U_(3)]	Mean - Permutation Difference [Groups_ F_U_(2) – T_U_(3)]	0.85%	99.15%	Permutation p-Values	Equality of Means Established?
Age	0.604	-0.001	-0.138	0.135	**0.000**	**No**
Bond_SC	0.236	0.001	-0.139	0.143	**0.001**	**No**
Brid_SC	-0.033	0.000	-0.138	0.138	0.632	Yes
Off_PP	-0.389	-0.001	-0.137	0.137	**0.000**	**No**
On_PP	-0.401	0.000	-0.139	0.138	**0.000**	**No**
PEff	-0.319	0.001	-0.140	0.141	**0.000**	**No**
PInt	-0.211	0.001	-0.139	0.139	**0.003**	**No**
Pknow	0.098	-0.002	-0.139	0.133	0.162	Yes

Similarly, Table 7.34 shows the results for the composites' variances. Also, in this case for the variables Age, Off_PP, PEff, PInt, and Pknow the variances CIs do not include the original variance difference and the relative p values are below 0.017. Accordingly, compositional invariance cannot be confirmed.

Table 7.34. Equality of Composite Variances Values for Facebook (n = 432) and Twitter (n = 383) Samples.

Equality of Composite Variances Values for Facebook and Twitter Samples						
	Variance - Original Difference [Groups_F_U_(2) – T_U_(3)]	Variance - Permutation Mean Difference [Groups_F_U_(2) – T_U_(3)]	2.50%	97.50%	Permutation p-Values	Equality of Variances Established?
Age	-0.272	0.002	-0.156	0.162	**0.001**	**No**
Bond_SC	0.031	0.000	-0.137	0.138	0.667	Yes
Brid_SC	-0.121	0.000	-0.161	0.154	0.134	Yes
Off_PP	-0.067	0.000	-0.035	0.039	**0.001**	**No**
On_PP	-0.015	0.001	-0.021	0.026	0.235	Yes
PEff	-0.686	-0.003	-0.400	0.399	**0.001**	**No**
PInt	-0.867	-0.002	-0.356	0.349	**0.000**	**No**
Pknow	-0.170	-0.001	-0.144	0.142	**0.017**	**No**

In summary, partial measurement invariance is established and we can proceed further with the analysis of differences of the path coefficients across groups by means of permutation tests. The Algorithm settings are specified in Appendix K. Table 7.35 shows the output of the permutation test reporting the two tailed 98.3% permutation-based Cis for the relations of interest (Sidak's correction applied).

Table 7.35. Permutation Test Results for Significant Differences between Facebook (n = 432) and Twitter (n = 383) users.

Permutation Test F_U (432) Vs T_U (383) Output							
	Std. β [F_U]	Std. β [T_U]	Std. β (d)	Std. β Perm. Mean (d)	0.85%	99.15%	Permutation p-Values
Bond_SC -> Off_PP	-0.081	0.152	-0.233	0.000	-0.133	0.135	0.001
Bond_SC -> On_PP	0.027	0.230	-0.203	0.001	-0.147	0.149	0.005
Brid_SC -> Off_PP	0.312	0.180	0.132	-0.002	-0.125	0.105	0.014
Brid_SC -> On_PP	0.285	0.297	-0.011	-0.002	-0.155	0.150	0.883

The cells representing significant difference are highlighted in green. Notably, the relationships that differ significantly at a 1.7% level of significance are:

- Bond_SC → Off_PP, $d_{(\beta i - \beta j)} = -0.233$, 98.3% CI [-0.133, 0.135], $p = 0.001$.
- Bond_SC → On_PP, $d_{(\beta i - \beta j)} = -0.203$, 98.3% CI [-0.147, 0.149], $p = 0.005$.
- Brid_SC → Off_PP, $d_{(\beta i - \beta j)} = 0.132$, 98.3% CI [-0.125, 0.105], $p = 0.014$.

Therefore, "Type_SNS_Used" significantly moderates the relationships between Bond_SC and On_PP and Off_PP and between Brid_SC and Off_PP.

However, in Section 7.2 when testing for the moderating effect of the variable "Int_SNS_Use" to answer research question Q2, we found a significant moderating effect in the sample of Twitter users over the relationships Brid_SC → Off_PP and Brid_SC → On_PP. Hence, to provide a more comprehensive assessment of the moderation effect of "Type_SNS_Used" we controlled for the "Int_SNS_Use" by splitting each group of users (Facebook and Twitter) into three subgroups through the quartile split method (see Section 7.1.1.3).

Permutation tests were carried out across Facebook and Twitter users according to their level of intensity of use. All the comparisons are reported in Table 7.36. However,

later, to answer research question Q3 (Section 7.3) also the F+T_U sample is compared to the F_U and T_U samples across each category of intensity of use. Hence for each set of three pairwise comparison the Sidak correction was applied ($\alpha = 0.017$).

Table 7.36. Comparisons of Facebook and Twitter Users Across Different Levels of Intensity of SNSs Use.

Comparison of Facebook and Twitter Samples Across Different Levels of Intensity of Use of SNSs			
Levels of Intensity of SNSs Use	**Type of SNS Used**		
	Facebook	**Vs**	**Twitter**
Heavy Users	HF_U		HT_U
Mild Users	MF_U		MT_U
Light Users	LF_U		LT_U

Before proceeding with the group comparisons, we assessed the measurement and the structural models of the obtained subgroups and tested for the measurement invariance of constructs following the same procedures adopted earlier. All models were tested with the control variables included and the item Off_PP_3 removed to maintain consistency and facilitate comparisons of the results with the analysis conducted earlier by establishing configural invariance. However, before removing Off_PP_3, CTA-PLSs were performed on the Off_PP constructs of all the subgroups listed in Table 7.36 following the same rationale provided in Section 7.1.2. Notably, all the Off_PP constructs were correctly specified as reflective and we confidently proceeded to the removal of the items.

Regarding the measurement models, all the groups showed good internal consistency reliability (Table 7.37) and adequate discriminant validity.

Table 7.37. Internal Consistency Reliability Summary of F_U and T_U with Control Variables and Off_PP_3 Removed.

Internal Consistency Reliability Summary				
	HF_U		HT_U	
Constructs	CA	CR	CA	CR
Bond_SC	0.950	0.957	0.952	0.958
Brid_SC	0.955	0.961	0.950	0.958
Off_PP	0.927	0.942	0.921	0.936
On_PP	0.775	0.844	0.899	0.923
PEff	0.882	0.918	0.941	0.958
PInt	0.905	0.941	0.954	0.970
	MF_U		MT_U	
Constructs	CA	CR	CA	CR
Bond_SC	0.932	0.929	0.955	0.961
Brid_SC	0.924	0.937	0.960	0.965
Off_PP	0.797	0.850	0.888	0.909
On_PP	0.827	0.875	0.855	0.892
PEff	0.902	0.932	0.904	0.932
PInt	0.890	0.932	0.898	0.935
	LF_U		LT_U	
Constructs	CA	CR	CA	CR
Bond_SC	0.934	0.939	0.962	0.967
Brid_SC	0.928	0.939	0.951	0.958
Off_PP	0.795	0.843	0.839	0.879
On_PP	0.849	0.890	0.855	0.890
PEff	0.888	0.921	0.869	0.910
PInt	0.885	0.929	0.906	0.941

Also, all constructs had good convergent validity and displayed adequate AVE values (above 0.5) but those reported in Table 7.38. Hair et al. (2017) suggest eliminating indicators with the lowest outer loadings to increase the AVE of a construct and also look at the effect of the removal on its CA, CR and discriminant validity. For this reason, in Table 7.38 the CR and the CA values together with a summary of the assessment of all the discriminant validity metrics like Fornell-Larker Criterion (F-L), Cross Loadings (C-L), and HTMT are reported. Moreover, the table provides an indication of the lowest outer loadings (L_O_L) of the reflective indicators of the problematic constructs and their respective values (V_L_O_L).

Table 7.38. Problematic Constructs with AVE < 0.5 in the Heavy, Mild and Light Sub-groups of Facebook and Twitter Users.

Constructs with AVE < 0.5 in the Heavy, Mild and Light Users of Facebook and Twitter Samples									
LV	Sub-Group	AVE	CR	CA	F-L	C-L	HTMT	L_O_L	V_L_O_L
Off_PP	LF_U	0.407	0.843	0.795	ok	ok	ok	Off_PP_4	0.436
	MF_U	0.426	0.850	0.797	ok	ok	ok	Off_PP_5	0.404
	LT_U	0.482	0.879	0.839	ok	ok	ok	Off_PP_2	0.481
On_PP	HF_U	0.476	0.844	0.775	ok	ok	ok	On_PP_2	0.556

We started by eliminating the indicator with the lowest outer loading of the construct with the lowest AVE in a group. So, the indicator Off_PP_4 was at first eliminated from the Off_PP construct of LF_U. Items were removed until an AVE above the 0.5 threshold was obtained for all problematic constructs. The outcome of the elimination process is provided in Table 7.39.

Table 7.39. Outcome of Indicators Elimination Process.

Constructs with AVE < 0.5 in the Heavy, Mild and Light Users of Facebook and Twitter Samples after removing Several Indicators								
LV	Sub-Groups	AVE	CR	CA	F-L	C-L	HTMT	Indicators Removed
Off_PP	LF_U	0.563	0.837	0.743	ok	ok	ok	Off_PP_4
	MF_U	0.542	0.818	0.696	ok	ok	ok	Off_PP_1 Off_PP_2
	LT_U	0.536	0.821	0.711	ok	ok	ok	Off_PP_5
On_PP	HF_U	0.565	0.795	0.612	ok	ok	ok	On_PP_6 On_PP_3 On_PP_2

Notably, all the problematic constructs now meet the 0.5 threshold for the AVE. However, this came at the expenses of the CA that for two constructs is below the recommended threshold of 0.7. Also, the loss of information is high (50%) provided the three indicators out of six needed to be removed from the On_PP construct and four out of eight were dropped from the Off_PP variable. Eliminating so many indicators from the measurement models of those constructs may raise concerns about their content

validity and makes any comparison with results obtained from previous analysis irrelevant. In this case, Little et al. (1999) recommend to maintain indicators in the model even when the AVE is below the threshold of 0.5. Also, Fornell and Larcker (1981) argued that if AVE is below 0.5 but CR is above 0.6 then the construct presents still good convergent validity. Also, if discriminant validity is not an issue then problematic indicators can be retained. Looking at Table 7.38 we can see how all the problematic constructs show CR above 0.6 and have sufficient discriminant validity. Accordingly, we kept all the indicators.

The structural model was assessed for all groups reported in Table 7.36. Overall, the models showed no problems of multicollinearity and display good levels of predictive relevance and accuracy (Table 7.40).

Table 7.40. Q^2 and R^2 Values and their Significance for Facebook and Twitter Users Across Different Levels of Intensity of SNSs Use.

Q^2 and R^2 Significance Across Heavy, Mild and Light F_U and T_U							
		Q^2	R^2	Bootstrap Sample Mean	SD	T Statistics	P Value
Off_PP	HF_U	0.217	0.368	0.419	0.063	5.860	0.000
	MF_U	0.084	0.247	0.305	0.061	4.066	0.000
	LF_U	0.078	0.302	0.375	0.066	4.601	0.000
	HT_U	0.348	0.592	0.635	0.062	9.595	0.000
	MT_U	0.165	0.345	0.373	0.052	6.676	0.000
	LT_U	0.117	0.344	0.418	0.065	5.286	0.000
On_PP	HF_U	0.167	0.437	0.492	0.057	7.714	0.000
	MF_U	0.069	0.189	0.255	0.062	3.066	0.002
	LF_U	0.074	0.191	0.293	0.078	2.459	0.014
	HT_U	0.322	0.519	0.571	0.071	7.282	0.000
	MT_U	0.160	0.320	0.350	0.055	5.817	0.000
	LT_U	0.117	0.266	0.344	0.066	4.008	0.000

However, as the main aim of assessing the structural models is to prepare the data for the multiple pairwise comparison analysis, Table 7.41 reports the paths coefficients values and their BCa CI to ascertain the behaviour of the variables to be tested for moderation in different group categories (significant values highlighted in green). Notably, the path coefficients inspection show that the model does not behaves very differently across F_U and T_U when controlling for the Int_SNS_Use. Also, post-hoc tests for the non-significant relationships are provided. Notably, the achieved power is

below the recommended threshold of 80% (Cohen, 1988). Therefore, we cannot be confident that significant effects indeed do not exist.

Table 7.41. Path Coefficients and their Significance Across Levels of Intensity of SNSs Use per Type of SNSs used.

	Heavy Users Significance 5%	
	HF U	**HT U**
Bond_SC -> Off_PP	β = -0.057 f^2 = 0.003 BCa CI = [-0.314, 0.168] Power (1-β) = 0.087	β = 0.058 f^2 = 0.007 BCa CI = [-0.116, 0.201] Power (1-β) = 0.121
Bond_SC -> On_PP	β = 0.079 f^2 = 0.006 BCa CI = [-0.13, 0.271] Power (1-β) = 0.125	β = 0.070 f^2 = 0.009 BCa CI = [-0.121, 0.247] Power (1-β) = 0.142
Brid_SC -> Off_PP	β = 0.397 f^2 = 0.117 BCa CI = [0.164, 0.629]	β = 0.439 f^2 = 0.413 BCa CI = [0.282, 0.572]
Brid_SC -> On_PP	β = 0.372 f^2 = 0.116 BCa CI = [0.154, 0.578]	β = 0.712 f^2 = 0.922 BCa CI = [0.541, 0.846]
	Mild Users Significance 5%	
	MF U	**MT U**
Bond_SC -> Off_PP	β = -0.016 f^2 < 0.001 BCa CI = [-0.440, 0.197] Power (1-β) = 0.050	β = 0.138 f^2 = 0.020 BCa CI = [-0.023, 0.283] Power (1-β) = 0.483
Bond_SC -> On_PP	β = -0.017 f^2 < 0.001 BCa CI = [-0.449, 0.141] Power (1-β) = 0.050	β = 0.199 f^2 = 0.040 BCa CI = [0.056, 0.346]
Brid_SC -> Off_PP	β = 0.249 f^2 = 0.057 BCa CI = [0.111, 0.401]	β = 0.237 f^2 = 0.048 BCa CI = [0.100, 0.364]
Brid_SC -> On_PP	β = 0.244 f^2 = 0.050 BCa CI = [0.120, 0.400]	β = 0.289 f^2 = 0.069 BCa CI = [0.144, 0.419]
	Light Users Significance 5%	
	LF U	**LT U**
Bond_SC -> Off_PP	β = -0.093 f^2 = 0.009 BCa CI = [-0.346, 0.203] Power (1-β) = 0.154	β = 0.112 f^2 = 0.014 BCa CI = [-0.102, 0.329] Power (1-β) = 0.207
Bond_SC -> On_PP	β = 0.062 f^2 = 0.003 BCa CI = [-0.313, 0.257] Power (1-β) = 0.083	β = 0.235 f^2 = 0.055 BCa CI = [-0.042, 0.472] Power (1-β) = 0.618
Brid_SC -> Off_PP	β = 0.100 f^2 = 0.010 BCa CI = [-0.204, 0.369] Power (1-β) = 0.166	β = 0.041 f^2 = 0.002 BCa CI = [-0.213, 0.238] Power (1-β) = 0.071
Brid_SC -> On_PP	β = 0.181 f^2 = 0.027 BCa CI = [-0.156, 0.383] Power (1-β) = 0.366	β = 0.125 f^2 = 0.015 BCa CI = [-0.153, 0.361] Power (1-β) = 0.218

Furthermore, CMB was investigated for all groups through FCA tests (Kock, 2015). Overall, all VIF values were below the conservative threshold of 3.3 but those reported in Table 7.42 for the sample of Facebook light users and in Table 7.43 for Twitter mild users. Yet, as argued by Kock (2015) VIFs tend to increase with model complexity and when algorithms that incorporate measurement errors are used. According to Akter et al. (2017) and Chin (2010) a model can be considered complex when it has 10 or more constructs. The proposed model to answer research question Q1 comprises 10 constructs and therefore can be considered complex. Moreover, this study employs the PLS-SEM analysis that incorporates measurement errors in the computation of the algorithm. Arguably, in these circumstances the VIF threshold used in CMB tests should be set to 5 (Kock and Lynn, 2012). Accordingly, CMB is not an issue at this stage.

Table 7.42. Problematic VIF values found through CMB Assessment of Facebook Light Users Sample with Control Variables and Item Off_PP_3 Removed (n = 99).

CMB Full VIF Assessment		
	Off_PP	**Pknow**
PEff	3.364	3.407

Table 7.43. Problematic VIF values found through CMB Assessment of Twitter Mild Users Sample with Control Variables and Item Off_PP_3 Removed (n = 95).

CMB Full VIF Assessment				
	Bond_SC	**Brid_SC**	**PEff**	**PInt**
Off_PP	3.811	3.681	3.476	3.531
On_PP	3.473	3.399	3.489	3.535

Moreover, before proceeding with the comparisons of the groups, measurement invariance was assessed following the procedure employed earlier. Notably, partial measurement invariance was established. across F_U and T_U groups at each level of their intensity of use (Appendix O). Hence, we proceeded with the pairwise permutation tests to compare groups as reported in Table 7.36.

The results of the Permutation outputs showed that the type of SNSs used moderates only the relationship Brid_SC → On_PP, $d_{(\beta F\_U - \beta T\_U)}$ = -0.340, 98.3% CI [-0.325, 0.339], p = 0.014 in the heavy users category, when controlling for Int_SNS_Use.

Notably, Int_SNS_Use seems to cancel out the moderating effect of the Type_SNS_Used which could be arguably due to differences in the time spent on those social networks by respondents. To further confirm this assumption, we tested Facebook and Twitter samples for significant differences in Int_SNS_Use using a Mann-Whitney U test. We used a non-parametric test because the variable "Int_SNS_Use" is not normally distributed in both samples. Indeed, Facebook users spent an average of 44 minutes online (*SD* = 71.81) and their time was non-normally distributed, with skewness of 4.567 (*SE* = 0.117) and kurtosis of 7.124 (*SE* = 0.234). Similarly, Twitter users spent an average of 32 minutes online (*SD* = 40.18) and the variable was non-normally distributed, with skewness of 2.24 (SE = 0.125) and kurtosis of 5.30 (*SE* = 0.429). The Mann-Whitney test (Table 7.45) indicated that the time spent online was significantly higher for Facebook users (*Mdn* = 20) than for Twitter users (*Mdn* = 20), *U* = 72903.5, *Z* = -2.939, *p* = 0.003, r = -0.103.

Table 7.44. Mann-Whitney Ranks Comparing Total Time Spent on Facebook (n = 432) and Twitter (n = 383).

Mann-Whitney Ranks for Time Spent Online F_U Vs T_U			
SNS_Group	**N**	**Mean Rank**	**Sum of Ranks**
F_U	432	430.74	186080.50
T_U	383	382.35	146439.50
Total	815		

Table 7.45. Mann-Whitney Test Statistics Comparing Total Time Spent on Facebook (n = 432) and Twitter (n = 383).

Mann-Whitney Test for Time Spent Online F_U Vs T_U[a]	
	Totime
Mann-Whitney U	72903.500
Wilcoxon W	146439.500
Z	-2.939
Asymp. Sig. (2-tailed)	0.003
a. Grouping Variable: SNS_Group	

Following the above rationale, it can be concluded that the type of SNS used moderates the relationships between Bond_SC and Brid_SC with On_PP and Off_PP only if the time spent on those SNS is not controlled for, with the exception of the

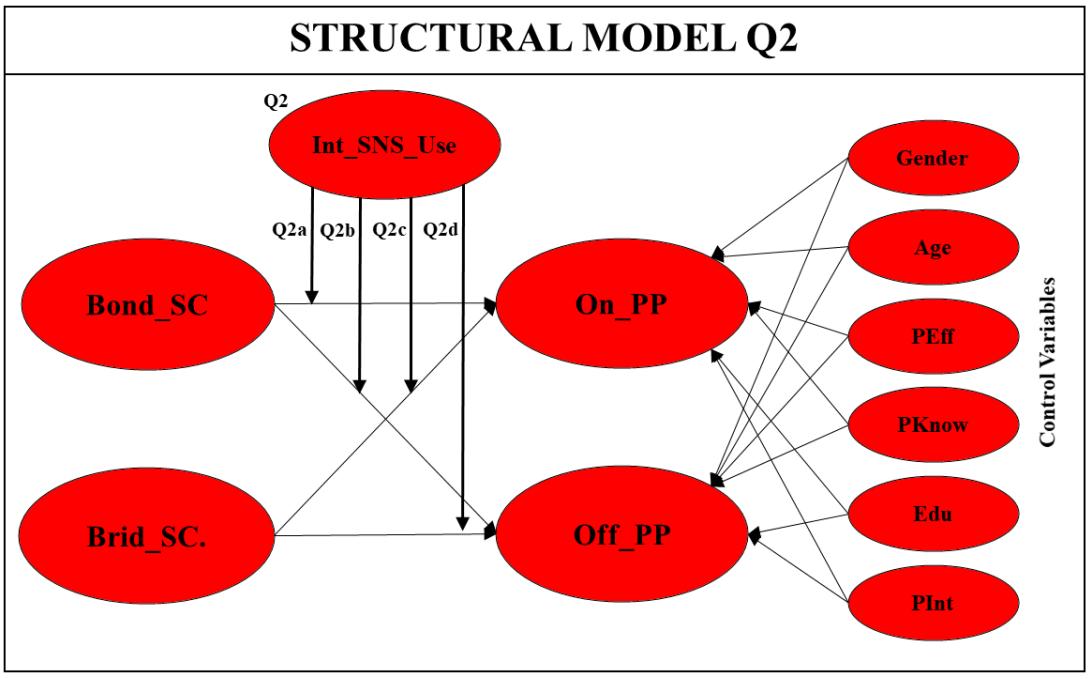
relationship Brid_SC → On_PP in the heavy category of users which is significantly stronger for T_U than for F_U.

7.2. INVESTIGATING THE MODERATING EFFECT OF INTENSITY OF USE OF SNSs

This Section presents the results of the analysis conducted to answer research question Q2 by testing the moderating effect of "Int_SNS_Use" on the relationships between Bond_SC and Brid_SC with Off_PP and On_PP of Facebook and Twitter users' samples.

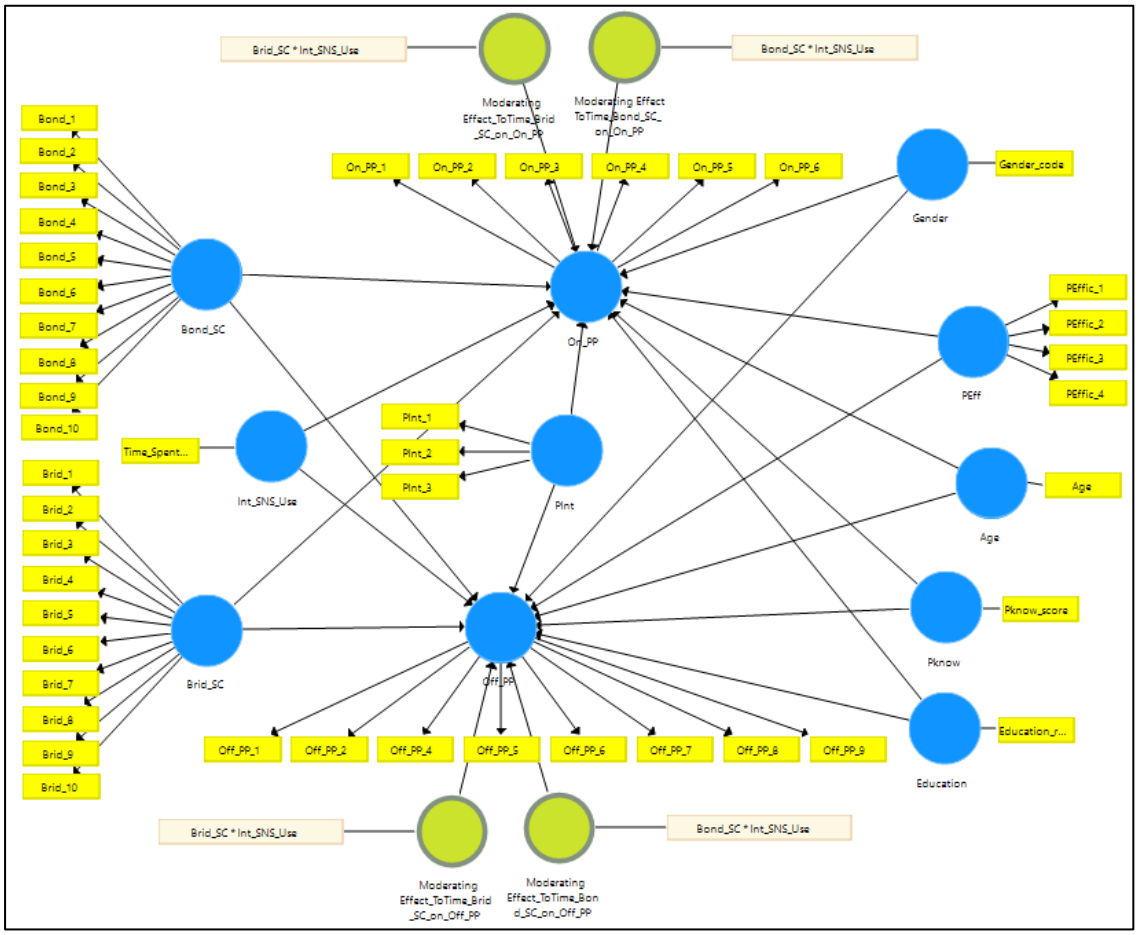
Following the systematic approach to PLS-SEM analysis suggested by Hair et al. (2017), the Structural model and the Measurement model to answer research question Q2 and all its sub-questions are specified in Figure 7.6 and Figure 7.7. The structural model will be separately tested for F_U and T_U since the MICOM procedure conducted in Section 7.1.3.1 showed that an analysis on the pooled data of the two samples combined is meaningless because those groups do not show equality of means and variances. Notably, the model with the control variables is proposed as it has already been proved to yield higher predictive accuracy and relevance and better model fit compared to the model with no control variables for both the samples (see Section 7.1.3.1).

Figure 7.6. Structural Model Research Question Q2.



Following, Hair et al. (2017) and (Henseler and Chin, 2010) the two-stage approach was employed to ascertain whether Int_SNS_Use exerts a significance effect on the hypothesised relationships. Accordingly, the measurement model (Figure 7.7) includes four interaction terms (green constructs) as single-item measures created by multiplying the latent variable scores of the exogenous latent variables with those of the moderator variable (Hair et al., 2017).

Figure 7.7. General Measurement Model for Q2.



Note: item Off_PP_3 was removed from the analysis as it was found to negatively affect the convergent validity of the Off_PP construct in Section 7.1.5.

The criteria and procedures employed to assess the measurement models of Facebook and Twitter users and the algorithm setting employed for the parameters' estimation are the same used for the analysis carried out in Section 7.1 and reported in Appendix K. Overall, the measurement models of Facebook and Twitter users showed good internal consistency reliability (CA and CR > 0.70) and adequate convergent

validity (AVEs > .50 and outer loadings in acceptable range). Yet, some of the indicators showed communality values below the 0.5 threshold (Table 7.46). However, they were retained as they did not affect neither the AVE nor the reliability of the related constructs. Also, all constructs show sufficient discriminant validity.

Table 7.46. Indicators with Communality Values Below 0.5 in Facebook and Twitter Users Samples.

Indicators' Communality Values Below 0.5						
Sample	**LV**	**Indicators**	**Communality**	**AVE**	**CA**	**CR**
F_U	Off_PP	Off_PP_2	0.456	0.508	0.861	0.891
		Off_PP_4	0.399			
		Off_PP_5	0.497			
		Off_PP_6	0.413			
		Off_PP_7	0.496			
	On_PP	On_PP_2	0.397	0.511	0.808	0.862
		On_PP_6	0.475			
T_U	Off_PP	Off_PP_2	0.352	0.586	0.897	0.918
		Off_PP_7	0.458			

Once the measurement models were assessed, the structural model validity was evaluated for both F_U and T_U samples employing the criteria summarised in Appendix K. Notably, collinearity was not an issue in any of the structural models (VIF < 5). Also, the model displayed moderate and substantial levels of predictive accuracy respectively for F_U and T_U samples and good levels of predictive relevance (Table 7.47).

Table 7.47. Summary Statistics of Predictive Relevance and Accuracy for F_U and T_U Samples.

Summary Statistics of Predictive Relevance and Accuracy with R^2 Significance										
	Sample	**Q^2**	**R^2**	**Bootstrap Mean R^2**	**Bias**	**2.5%**	**97.5%**	**SD**	**T Stat**	**P Value**
Off_PP	F_U	0.115	0.264	0.292	0.028	0.184	0.314	0.040	6.666	0.000
	T_U	0.226	0.409	0.433	0.024	0.307	0.468	0.043	9.431	0.000
On_PP	F_U	0.099	0.224	0.248	0.024	0.139	0.270	0.036	6.187	0.000
	T_U	0.302	0.453	0.476	0.023	0.357	0.517	0.044	10.238	0.000

Following Hair et al. (2017), when the main objective of the analysis is to ascertain significant moderation effects, the next step involves analysing the size and the significance of the moderation path and its effect size. According to Kenny (2016) values of 0.005, 0.01, and 0.025 constitute small, medium, and large effect sizes, respectively.

Considering the *Facebook users sample* when assuming a 95% level of confidence:

- the Int_SNS_Use moderator had a *positive but not significant moderation effect* on the relationships:
  - Bond_SC → On_PP, β = 0.009, BCa CI [-0.077, 0.114], $f^2 < 0.001$,
  - Brid_SC → Off_PP, β = 0.092, BCa CI [-0.101, 0.343], $f^2 = 0.006$,
  - Brid_SC → On_PP, β = 0.039, BCa CI [-0.062, 0.161], $f^2 = 0.001$.
- the Int_SNS_Use showed a *negative not significant moderation effect* on the relationship:
  - Bond_SC → Off_PP, β = -0.046, BCa CI [-0.232, 0.127], $f^2 = 0.002$.

For the *Twitter users' sample*, assuming a 95% level of confidence:

- the Int_SNS_Use moderator had a *negative but not significant moderation effect* on the relationships:
  - Bond_SC → On_PP, β = -0.031, BCa CI [-0.180, 0.104], $f^2 = 0.001$,
  - Bond_SC → Off_PP, β = -0.003, BCa CI [-0.145, 0.149], $f^2 < 0.001$.
- the Int_SNS_Use exerted a *positive significant and large moderating effect* on the relationships:
  - Brid_SC → Off_PP, β = 0.166, BCa CI [0.011, 0.286], $f^2 = 0.030$,
  - Brid_SC → On_PP, β = 0.186, BCa CI [0.040, 0.301], $f^2 = 0.041$.

Yet, it must be noted that for all non-significant effects we achieved a statistical power (1-β) below the recommended threshold of 80%.

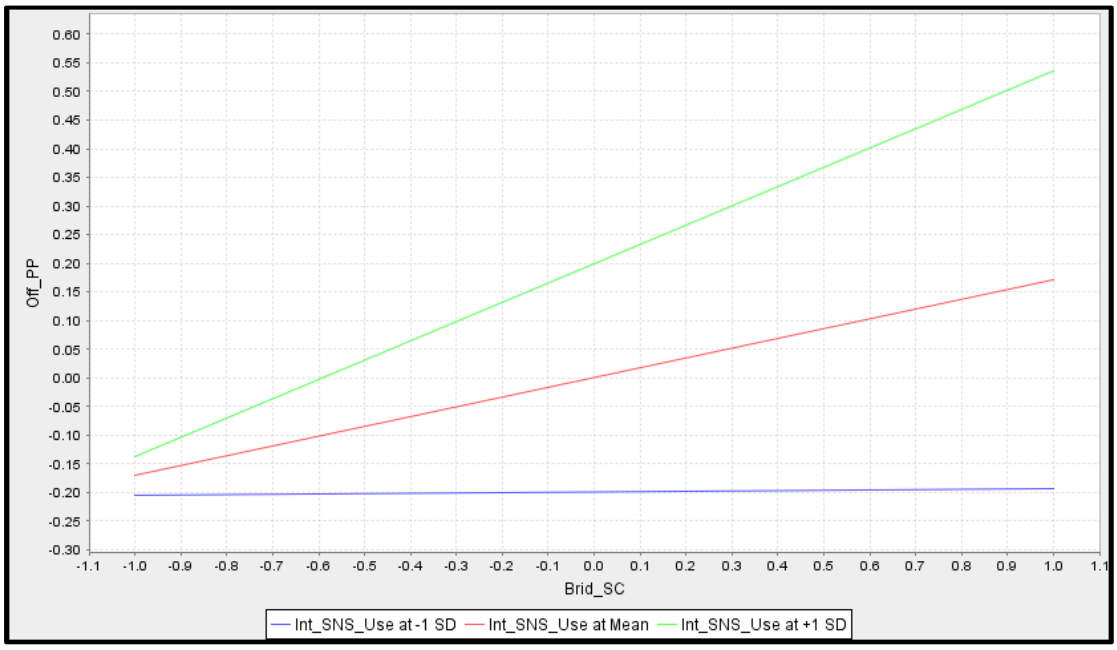
To aid with the interpretation of the moderation analysis results, a slope plot is used to represent the relationships found to be significantly moderated (Hair et al., 2017). Figure 7.8 shows the results of the moderation effect of Int_SNS_Use on the relationship Brid_SC (x axis) → Off_PP (y axis) for T_U. The middle line (red) represents the

relationship for an average level of the moderator variable Int_SNS_Use also called simple effect. Specifically:

- For an average level of the moderator variable the simple effect Brid_SC → Off_PP is 0.171 (red line).
- For higher levels (mean value of Int_SNS_Use plus one standard deviation) of Int_SNS_Use, Brid_SC → Off_PP is 0.337 (green line).
- For lower levels (mean value of Int_SNS_Use minus one standard deviation unit) of Int_SNS_Use, Brid_SC → Off_PP is 0.005 (blue line).

Notably, the relationship between Brid_SC and Off_PP is positive as all three lines have a positive (upwards) slope. This relationship is significantly moderated by the time users spend online, given that, for higher levels of intensity of use, the relationship Brid_SC → Off_PP is stronger than the simple effect, while for lower levels of Int_SNS_Use the relationship is still positive but weak.

Figure 7.8. Simple Slope Plot Brid_SC → Off_PP when Moderated by Int_SNS_Use (Twitter Sample).

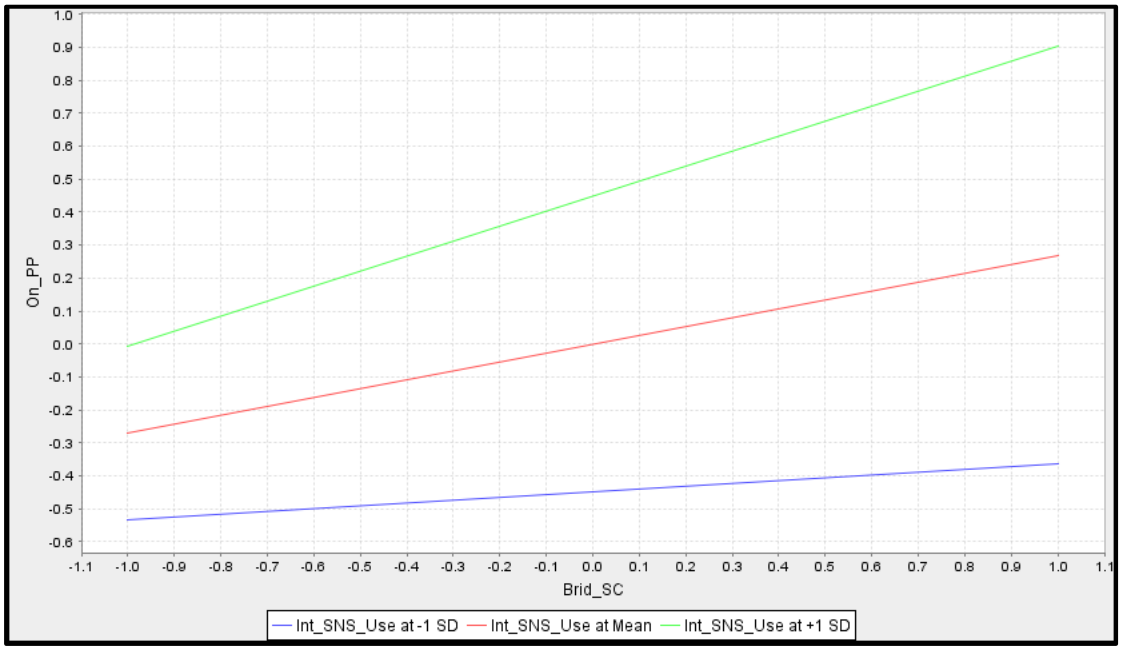


Similarly, Figure 7.9 shows the results of the moderation effect of Int_SNS_Use on the relationship Brid_SC → On_PP for T_U. Specifically:

- For an average level of the moderator variable the simple effect Brid_SC → On_PP is 0.270 (red line).
- For higher levels of Int_SNS_Use (mean value of Int_SNS_Use plus one standard deviation), Brid_SC → On_PP is 0.456 (green line).
- For lower levels of Int_SNS_Use (mean value of Int_SNS_Use minus one standard deviation unit) Brid_SC → On_PP is 0.084 (blue line).

Notably, the relationship between Brid_SC and On_PP is positive for all three lines. Hence, higher levels of Brid_SC provide higher levels of On_PP. However, their relationship is significantly moderated by the time users spend online.

Figure 7.9. Simple Slope Plot Brid_SC → On_PP when Moderated by Int_SNS_Use (Twitter Sample).



To corroborate the above results, we conducted a further assessment of the models with and without the moderation term with respect to their in-sample and out-of-sample metrics and the model fit measures summarised in Appendix K. Notably, in the Facebook sample, for the endogenous variables Off_PP the model without the moderator shows better in-sample and out-of-sample predictive relevance (Table 7.48). The same holds true for On_PP. In fact, although the RMSE and the Q^2 index suggest that the model

with the moderator variable should be chosen in terms of predictive accuracy all the remaining in-sample and out-of-sample measures point in favour of the model with no moderator except for the R^2 and the R^2_{adj} which are higher for both Off_PP and On_PP in the moderation model. Yet, those metrics are "*largely uninformative in the context of model selection as they always improve with model complexity*" (Sharma et al., 2019b: p. 348). Hence, they are usually used as second-best choice for model comparison. Therefore, we focus primarily on the other criteria and, based on the principle of parsimony, select the model with no moderator as best alternative for both endogenous variables. Finally, an *F*-test showed non-significant increase in R^2 in the moderation model for both Off_PP, $F_{(2,421)} = 2.86$, $p = 0.058$, and On_PP, $F_{(2,421)} = 2.17$, $p = 0.115$, further validating our choice.

Similarly, we assessed the models with and without the moderation term with respect to their in-sample and out-of-sample metrics and model fit measures for T_U (Table 7.49). Notably, for both Off_PP and On_PP the model with the moderator shows better in-sample and out-of-sample predictive relevance while retaining good model fit. Also, the increase in R^2 in the model with the moderator is significant for both, Off_PP, $F_{(2,372)} = 22.345$, $p < 0.001$) and On_PP, $F_{(2,372)} = 78.888$, $p < 0.001$.

Overall, the model selection process further confirms and supports the results of the moderation analysis providing confidence in our findings. Hence, the model with the moderator variable Int_SNS_Use should be preferred to the one with no moderator for both endogenous variables Off_PP and On_PP in the Twitter users sample although the moderation is significant only for the relationships Brid_SC → Off_PP and Brid_SC → On_PP.

Table 7.48. Model Comparison with and without the Moderator Int_SNS_Use for F_U (n = 432).

Model Comparison of the Sample of Facebook Users with and without the Moderator Int_SNS_Use											
LV	Model	In-Sample Measures					Out-of-Sample Measures			Model fit measures	
		R^2	R^2adj	AICu	AICc	BIC	RMSE	MAD	Q^2	RMS_{Theta}	SRMR
Off_PP	No Moderation	0.254	0.240	-100.682	324.746	-73.161	0.907	0.620	0.120	0.106	0.076
	Moderation	0.264	0.245	-97.452	325.249	-60.800	0.913	0.622	0.115	0.115	0.074
On_PP	No Moderation	0.216	0.201	-79.025	346.402	-51.504	0.931	0.621	0.098	0.106	0.076
	Moderation	0.224	0.203	-74.208	348.493	-37.556	0.928	0.620	0.099	0.115	0.074

Table 7.49. Model Comparison with and without the Moderator Int_SNS_Use for T_U (n = 383).

Model Comparison of the Sample of Twitter Users with and without the Moderator Int_SNS_Use											
LV	Model	In-Sample Measures					Out-of-Sample Measures			Model fit measures	
		R^2	R^2adj	AICu	AICc	BIC	RMSE	MAD	Q^2	RMS_{Theta}	SRMR
Off_PP	No Moderation	0.338	0.324	-131.910	244.574	-105.485	0.845	0.606	0.186	0.100	0.077
	Moderation	0.409	0.391	-166.250	207.545	-131.065	0.814	0.586	0.226	0.107	0.065
On_PP	No Moderation	0.221	0.204	-69.550	306.933	-43.126	0.915	0.681	0.142	0.100	0.077
	Moderation	0.453	0.437	-196.057	177.738	-160.872	0.780	0.555	0.302	0.107	0.065

7.3. INVESTIGATING THE MODERATING EFFECT OF THE COMBINED USE OF SNSs

This Section presents results of the analysis carried out to answer research question Q3 involving testing for the significance of the moderating effect of Comb_Use_SNSs on the relationships between Bond_SC and Brid_SC with Off_PP and On_PP, by means of Permutation test following the procedure applied earlier in Section 7.1.3.1.

First, the structural model (Figure 7.10) and the measurement model (Figure 7.13) were specified. Notably, the model for F+T_U with control variables is endorsed, given that it achieves higher predictive accuracy and relevance and better fit compared with the model with no control variables (Appendix P). In Section 7.2. we found that Int_SNS_Use significantly moderates the relationships between Brid_SC and Off_PP and On_PP in T_U. This implies that comparing T_U with other groups without accounting for heterogeneity in the amount of time people spend online would lead to misleading results in terms of the true moderation effect of Comb_Use_SNSs. Therefore, for a more exhaustive and comprehensive analysis, the proposed structural model was compared across different types of SNSs users accounting for different levels of intensity of use of SNSs (Figure 7.11). Yet, the analysis is performed at first across the three full samples of F+T_U, F_U and T_U (Figure 7.12). This is meant to account for the loss of information and for the biases related to the arbitrariness of the assignation of observations and selection of procedures related to the quartile split method employed for the variable “Int_SNS_Use” (see Section 7.1.3.1).

Figure 7.10. Structural Model Research Question Q3.

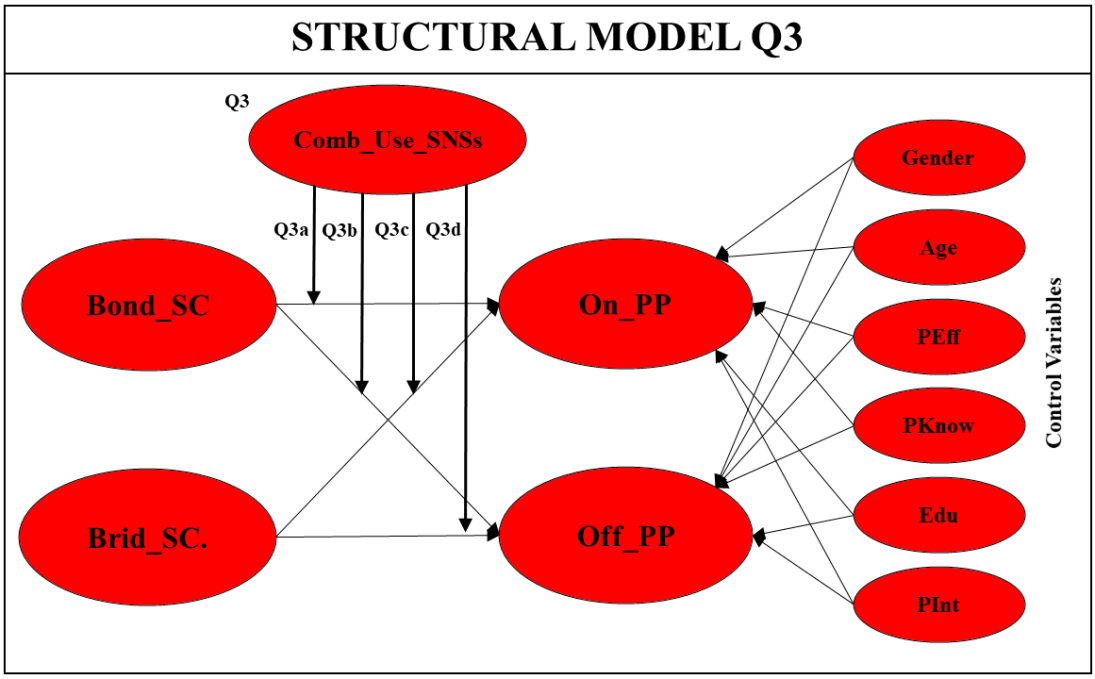


Figure 7.11. Pairwise Comparisons of Combined and Non-Combined Use of SNSs Across Different Levels of Intensity of SNSs use.

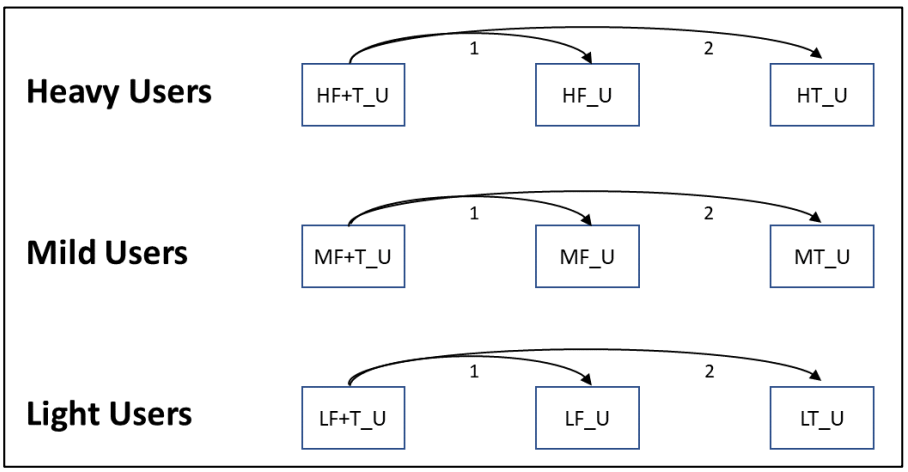


Figure 7.12. Pairwise Comparisons of Combined and Non-Combined Use of SNSs Across Different Types of SNSs used.

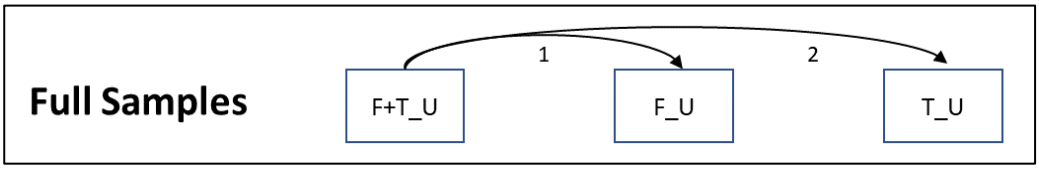
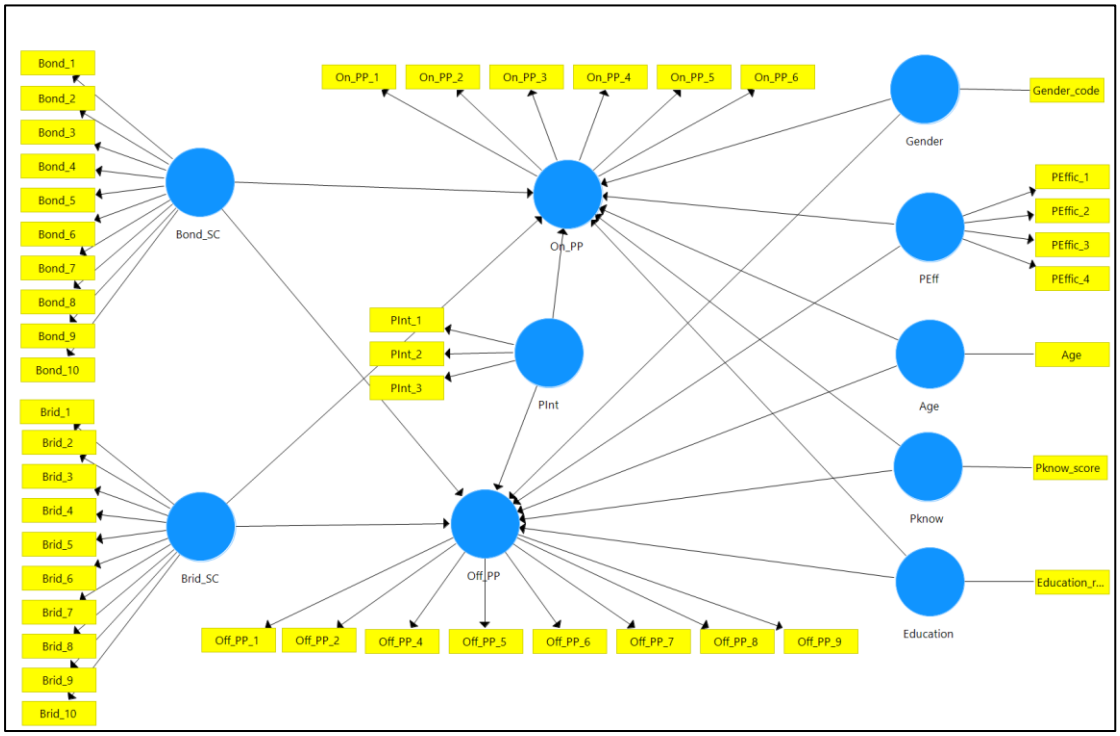


Table 7.50. Sample sizes for Facebook, Twitter and, Facebook and Twitter combined users when accounting for Intensity of use of SNSs.

Groups for Comparison to Test Moderating Effect of Combined Use of SNSs			
Category of Users	**Type of SNS Used**		
	Facebook	Twitter	Facebook + Twitter
Full Samples	n = 432	n = 383	n = 397
Heavy Users	n = 108	n = 88	n = 41
Mild Users	n = 162	n = 186	n = 78
Light Users	n = 99	n = 95	n = 45

Overall, 2 pairwise comparisons across each category of Int_SNS_Use and the full samples are involved in the analysis. For each set of pairwise comparisons the Sidak correction procedure was applied (see Section 6.5.2) to counteract the increase of the familywise error rate. Notably, in Section 7.1.3 F_U and T_U were already compared to answer research question Q1 across all different levels of Int_SNS_Use. Therefore, when we computed the Sidak correction, we accounted for three pairwise comparisons at each level of Int_SNS_Use. Accordingly, the Sidak correction yielded an $\alpha = 0.017$. Also, consistently with the analysis carried out in Section 7.1.3.1, the Item Off_PP_3 was removed to allow for configural invariance to be established across groups to be compared. However, before removing the item a CTA-PLS was performed which supported the reflective measurement level of Off_PP for all subgroups of Facebook and Twitter combined users (heavy, mild and light).

Figure 7.13. Proposed Measurement Model for Research Question Q3.



Note: the moderator variable "Comb_Use_SNSs" is not represented in the measurement model as it used as grouping variable for the Permutation test. Also, the item Off_PP_3 is removed to allow for configural invariance and meaningful results comparison with previous analysis conducted (Section 7.1.3.1).

The values of assessment criteria of the measurement models of the Facebook and Twitter users combined sample and all its subgroups (Heavy, mild and light) are summarised below. Overall, all constructs of all samples show good internal consistency reliability (Table 7.51) and sufficient discriminant validity as all the conditions for the Fornell-Larker criterion, Cross-loadings, HTMT Ratio and related HTMT CIs are met. With respect to convergent validity all constructs of all samples have AVE > 5 but Off_PP and On_PP of the group of mild users. Table 7.52 reports a summary of the problematic constructs (interpretation guidelines were provided in Section 7.1.3.1).

Table 7.51. Summary Internal Consistency reliability for all F+T_U Samples.

Summary Internal Consistency Reliability of F+T_U							
EF+T_U		HF+T_U		MF+T_U		LF+T_U	
CA	CR	CA	CR	CA	CR	CA	CR
0.930	0.940	0.911	0.925	0.920	0.931	0.910	0.924
0.950	0.956	0.944	0.952	0.932	0.942	0.884	0.905
0.906	0.924	0.933	0.945	0.840	0.875	0.904	0.929
0.882	0.911	0.889	0.916	0.706	0.804	0.851	0.890
0.900	0.930	0.908	0.936	0.905	0.934	0.844	0.895
0.929	0.955	0.961	0.975	0.910	0.944	0.914	0.945

Table 7.52. Problematics Constructs with AVE < 0.5 in the Mild Facebook and Twitter Combined Users Sample (n = 78).

Constructs with AVE < 0.5 in the Mild Facebook and Twitter Combined Users Sample									
LV	Sub-Groups	AVE	CR	CA	F-L	C-L	HTMT	L_O_L	V_L_O_L
Off_PP	MF+T_U	0.471	0.875	0.840	ok	ok	ok	Off_PP_7	0.518
On_PP	MF+T_U	0.414	0.804	0.706	ok	ok	ok	On_PP_6	0.544

Yet, following the reasoning provided in Section 7.1.3.1 to avoid problems of content validity (Little et al., 1999) and allow for configural invariance and meaningful comparisons with results obtained from previous analysis, the problematic indicators were retained as CR was above 0.6 and the problematic constructs showed adequate discriminant validity (Fornell and Larcker, 1981).

Once, the measurement models were assessed, the structural models were evaluated through the criteria reported in Appendix K. Overall, the results of the entire sample of F+T_U confirmed that there were no problems of Collinearity (all VIF < 5). The model had a moderate predictive accuracy for both Off_PP (R^2 = 0.262) and On_PP (R^2 = 0.215) and significant explanatory power for Off_PP with 95% BCa CI R^2 [0.232, 0.329], p < 0.001 and for On_PP with 95% BCa CI R^2 [0.132, 0.276], p < 0.001. The impact of Bond_SC on Off_PP (f^2 = 0.010) and On_PP (f^2 = 0.030), Brid_SC on Off_PP (f^2 = 0.004) and On_PP (f^2 = 0.005) could be considered very small. Among the relationships of interest that needed to be tested for moderation effect only Bond_SC →

On_PP, β = 0.170, 95% BCa CI [0.060, 0.272] was significant at 5% significance level. However, the achieved statistical power of the test is below the recommended threshold (80%) for all other relationships. The model showed predictive relevance for both Off_PP (Q^2 = 0.146) and On_PP (Q^2 = 0.126), but the relative impact of predictive relevance was negligible for both Bond_SC and Brid_SC. Also, the model showed sufficient model fit with values of SRMR (0.072) and RMS_{theta} (0.106) below the suggested thresholds (see Appendix P for more details). CMB is not an issue as the full VIF test provided values below the recommended threshold of 3.3.

Furthermore, as mentioned earlier, since we needed to control for Int_SNS_Use, we split each sample of users into three categories, namely Heavy, Mild and Light (see Table 7.50). Overall, all the structural models of these sub-groups showed no issues of multicollinearity (VIFs < 5). Also, predictive relevance and accuracy were good, except for MF+T_U which showed a low non-significant R^2 (Table 7.53).

Table 7.53. Summary predictive Accuracy and Relevance for all F+T_U Samples.

Summary Predictive Accuracy and Relevance Heavy, Mild and Light F+T_U							
LV	Groups	Q^2	R^2	Bootstrap Mean R^2	SD	T Stat	P Value
Off_PP	HF+T_U	0.351	0.602	0.689	0.073	8.210	0.000
	MF+T_U	0.187	0.498	0.563	0.071	7.007	0.000
	LF+T_U	0.184	0.428	0.551	0.120	3.562	0.000
On_PP	HF+T_U	0.259	0.489	0.597	0.090	5.449	0.000
	MF+T_U	0.020	0.099	0.269	0.079	1.256	0.209
	LF+T_U	0.129	0.390	0.546	0.117	3.341	0.001

As the main aim of assessing the structural models is to prepare the data for the multiple pairwise comparison analysis, Table 7.54 reports the paths coefficients values, with their f^2 effects and the 95% BCa CI to ascertain the behaviour of the variables in different group categories. Notably, the path coefficients of the relationships that need to be tested for moderation of Comb_Use_SNS differ not only in terms of their signs but also in terms of their significance (significant values highlighted in green). This indicates that the model behaves differently according to the type of SNSs considered and according to the Intensity of use of the SNSs analysed. Notably, for all the non-significant relationships the achieved statistical power is below the rule of thumb of 80% (Cohen,

1988). Therefore, we cannot be confident that significant effects do not exist for those relationships.

Table 7.54. Path Coefficients and their Significance Across Levels of Intensity of SNSs Use per Type of SNSs used.

Relationships	Heavy Users Significance 5%		
	HF+T U	HF U	HT U
Bond SC -> Off_PP	β = 0.313 f^2 = 0.152 BCa CI = [-0.018, 0.517]	β = -0.057 f^2 = 0.003 BCa CI = [-0.314, 0.168] Power (1-β) = 0.087	β = 0.058 f^2 = 0.007 BCa CI = [-0.116, 0.201] Power (1-β) = 0.121
Bond SC -> On_PP	β = 0.048 f^2 = 0.003 BCa CI = [-0.355, 0.356] Power (1-β) = 0.063	β = 0.079 f^2 = 0.006 BCa CI = [-0.13, 0.271] Power (1-β) = 0.125	β = 0.07 f^2 = 0.009 BCa CI = [-0.121, 0.247] Power (1-β) = 0.142
Brid SC -> Off_PP	β = -0.270 f^2 = 0.104 BCa CI = [-0.510, -0.008]	β = 0.397 f^2 = 0.117 BCa CI = [0.164, 0.629]	β = 0.439 f^2 = 0.413 BCa CI = [0.282, 0.572]
Brid SC -> On_PP	β = 0.459 f^2 = 0.234 BCa CI = [0.072, 0.799]	β = 0.372 f^2 = 0.116 BCa CI = [0.154, 0.578]	β = 0.712 f^2 = 0.922 BCa CI = [0.541, 0.846]
Relationships	Mild Users Significance 5%		
	MF+T U	MF U	MT U
Bond SC -> Off_PP	β = 0.213 f^2 = 0.051 BCa CI = [-0.242, 0.420] Power (1-β) = 0.502	β = -0.016 f^2 < 0.001 BCa CI = [-0.440, 0.197] Power (1-β) = 0.050	β = 0.138 f^2 = 0.020 BCa CI = [-0.023, 0.283] Power (1-β) = 0.483
Bond SC -> On_PP	β = -0.215 f^2 = 0.029 BCa CI = [-0.531, 0.321] Power (1-β) = 0.317	β = -0.017 f^2 < 0.001 BCa CI = [-0.449, 0.141] Power (1-β) = 0.050	β = 0.199 f^2 = 0.040 BCa CI = [0.056, 0.346]
Brid SC -> Off_PP	β = 0.053 f^2 = 0.003 BCa CI = [-0.192, 0.298] Power (1-β) = 0.076	β = 0.249 f^2 = 0.057 BCa CI = [0.111, 0.401]	β = 0.237 f^2 = 0.048 BCa CI = [0.100, 0.364]
Brid SC -> On_PP	β = 0.323 f^2 = 0.056 BCa CI = [-0.382, 0.622] Power (1-β) = 0.540	β = 0.244 f^2 = 0.050 BCa CI = [0.120, 0.400]	β = 0.289 f^2 = 0.069 BCa CI = [0.144, 0.419]
Relationships	Light Users Significance 5%		
	LF+T U	LF U	LT U
Bond SC -> Off_PP	β = -0.178 f^2 = 0.046 BCa CI = [-0.547, 0.389] Power (1-β) = 0.290	β = -0.093 f^2 = 0.009 BCa CI = [-0.346, 0.203] Power (1-β) = 0.154	β = 0.112 f^2 = 0.014 BCa CI = [-0.102, 0.329] Power (1-β) = 0.207
Bond SC -> On_PP	β = 0.389 f^2 = 0.205 BCa CI = [0.089, 0.622]	β = 0.062 f^2 = 0.003 BCa CI = [-0.313, 0.257] Power (1-β) = 0.083	β = 0.235 f^2 = 0.055 BCa CI = [-0.042, 0.472] Power (1-β) = 0.618
Brid SC -> Off_PP	β = -0.036 f^2 = 0.002 BCa CI = [-0.418, 0.434]	β = 0.100 f^2 = 0.010 BCa CI = [-0.204, 0.369]	β = 0.041 f^2 = 0.002 BCa CI = [-0.213, 0.238]

Before carrying out any group comparison, partial measurement invariance (Appendix O) was established following the same procedure employed in Section 7.1.3.1. Then, permutation analysis for all sets of pairwise comparisons as showed in Figure 7.11 and Figure 7.12 were performed at a 0.017 significant level. Table 7.55 and Table 7.56 show the output of the pairwise permutation tests between F+T_U and F_U and T_U respectively for the relationships of interest.

Table 7.55. Permutation Test Results for Significant Differences between F+T_U (n = 397) and F_U (n = 432).

Permutation Test F+T_U (n = 397) Vs F_U (n = 432) Output							
	Std. β [F+T_U]	Std. β [F_U]	Std. β (d)	Std. β Perm. Mean (d)	0.85%	99.15%	P
Bond_SC -> Off_PP	0.093	-0.081	0.174	0.001	-0.171	0.176	0.029
Bond_SC -> On_PP	0.170	0.027	0.143	0.000	-0.179	0.159	0.043
Brid_SC -> Off_PP	0.058	0.311	-0.253	0.004	-0.195	0.186	0.001
Brid_SC -> On_PP	0.070	0.284	-0.214	0.001	-0.177	0.194	0.006

Table 7.56. Permutation Test Results for Significant Differences between F+T_U (n = 397) and T_U (n = 383).

Permutation Test F+T_U (n = 397) Vs T_U (n = 383) Output							
	Std. β [F+T_U]	Std. β [F_U]	Std. β (d)	Std. β Perm. Mean (d)	0.85%	99.15%	P
Bond_SC -> Off_PP	0.093	0.150	-0.057	-0.003	-0.177	0.163	0.407
Bond_SC -> On_PP	0.170	0.230	-0.060	0.001	-0.170	0.162	0.407
Brid_SC -> Off_PP	0.058	0.180	-0.122	0.000	-0.152	0.154	0.070
Brid_SC -> On_PP	0.070	0.296	-0.227	0.002	-0.164	0.168	0.002

The cells representing significant difference are highlighted in green in both tables. Notably, Comb_Use_SNSs significantly and negatively moderate the relationships Brid_SC → On_PP when F+T_U is compared to both F_U, $d_{(\beta i-\beta j)}$ =-0.214, 98.3% CI [-0.177, 0.194], p = 0.006 and T_U, $d_{(\beta i-\beta j)}$ = -0.227, 98.3% CI [-0.164, 0.168], p = 0.002 at the 1.7% level of significance. However, a significant moderating effect of Comb_Use_SNSs was found also on the relationship Brid_SC → Off_PP but only in the comparison between F+T_U and F_U, $d_{(\beta i-\beta j)}$ = -0.253, 98.3% CI [-0.195, 0.186], p = 0.001.

Table 7.57 summarises the results of the permutation tests conducted across combined and not combined users of SNSs at different levels of intensity of use (significant results are highlighted in green).

Table 7.57. Summary Pairwise Permutation Tests Across Different Levels of Intensity of Use.

Summary Pairwise Permutation Test Across Different Levels of Intensity of Use								
Relationships	**Pairwise Comparisons**							
	HF+T_U Vs HF_U				**HF+T_U Vs HT_U**			
	β(d)	**0.85%**	**99.15%**	**Sig. 1.7%**	**β(d)**	**0.85%**	**99.15%**	**Sig. 1.7%**
Bond_SC -> Off_PP	0.369	-0.616	0.494	NO	0.254	-0.375	0.390	NO
Bond_SC -> On_PP	-0.031	-0.475	0.462	NO	-0.022	-0.404	0.393	NO
Brid_SC -> Off_PP	-0.668	-0.545	0.657	YES	-0.709	-0.437	0.369	YES
Brid_SC -> On_PP	0.087	-0.524	0.532	NO	-0.253	-0.399	0.344	NO
	MF+T_U Vs MF_U				**MF+T_U Vs MT_U**			
	β(d)	**0.85%**	**99.15%**	**Sig. 1.7%**	**β(d)**	**0.85%**	**99.15%**	**Sig. 1.7%**
Bond_SC -> Off_PP	0.229	-0.495	0.384	NO	0.075	-0.306	0.349	NO
Bond_SC -> On_PP	-0.198	-0.497	0.418	NO	-0.413	-0.364	0.379	YES
Brid_SC -> Off_PP	-0.196	-0.334	0.275	NO	-0.185	-0.358	0.308	NO
Brid_SC -> On_PP	0.079	-0.348	0.355	NO	0.034	-0.365	0.331	NO
	LF+T_U Vs LF_U				**LF+T_U Vs LT_U**			
	β(d)	**0.85%**	**99.15%**	**Sig. 1.7%**	**β(d)**	**0.85%**	**99.15%**	**Sig. 1.7%**
Bond_SC -> Off_PP	-0.085	-0.432	0.470	NO	-0.290	-0.461	0.394	NO
Bond_SC -> On_PP	0.327	-0.544	0.441	NO	0.154	-0.516	0.439	NO
Brid_SC -> Off_PP	-0.135	-0.585	0.553	NO	-0.076	-0.439	0.432	NO
Brid_SC -> On_PP	0.038	-0.525	0.365	NO	0.093	-0.507	0.498	NO

The pairwise Permutation tests output shows that when controlling for Int_SNS_Use, Comb_Use_SNSs moderates only the relationship Brid_SC → Off_PP when F+T_U is compared to both F_U, $d_{(\beta i- \beta j)}$ = -0.668, 98.3% CI [-0.545, 0.657], p = 0.008 and T_U, $d_{(\beta i- \beta j)}$ = -0.709, 98.3% CI [-0.437, 0.369], $p < 0.001$ in the heavy category. Also, MF+T_U showed a significantly lower path coefficient of the relationship Bond_SC → On_PP when compared to T_U, $d_{(\beta i- \beta j)}$ = -0.413, 98.3% CI [-0.364, 0.379], p = 0.010.

However, given that the Permutation test can yield misleading results when samples sizes have large differences (Hair et al., 2018, p. 154) like in the case of this research (Table 7.50), a sensitivity analysis was conducted to assess the robustness of the

Permutation tests' results and examine the extent to which the outcomes of the analysis are affected by any limitations of the statistical method employed (Field, 2013). In particular, Hair et al. (2018) suggest using the PLS-MGA test when groups sizes are very different. Moreover, also the Non-parametric Confidence Set Approach proposed by Sarstedt et al. (2011) was employed as it was shown to be more conservative than the PLS-MGA test and less prone to Type II error. For both procedures, the Sidak correction was applied and the analysis was carried out at the 1.7% level of significance.

Table 7.58 reports the results of the PLS-MGA analysis conducted using the setting suggested by Hair et al. (2018) indicating a maximum of 300 iterations, using the path weighting scheme, a stop criterion of $1*10^{-7}$ with a number of 5000 bootstrapped samples. Only the results of the variables of interest necessary to answer research question Q3 are reported here. The first column, β(d), in Table 7.70 indicates the difference in the path coefficients of the group analysed. The second column shows the *p* values of the PLS-MGA analysis. As the PLS-MGA is a one-tailed test, these *p* values indicate whether the path coefficient is significantly larger in the first group than in the second one. Hence, the third column (1- *p* value) shows if there is a significant difference in the other direction (Hair et al., 2018). Lastly, the fourth column indicates whether the difference is significant at the 1.7% level of significance (results highlighted in green). Notably, only the path coefficients of the relationship Brid_SC → Off_PP differ across the heavy category of F+T_U, F_U and T_U.

Table 7.58. Summary Pairwise PLS-MGA Comparisons for the Variable of Interest Across Different Levels of Intensity of Use.

Summary Pairwise PLS-MGA Comparisons Across Different Levels of Intensity of Use								
Relationships	**HF+T_U Vs HF_U**				**HF+T_U Vs HT_U**			
	β(d)	**p value**	**1-p value**	**Sig. 1.7%**	**β(d)**	**p value**	**1-p value**	**Sig. 1.7%**
Bond_SC -> Off_PP	0.369	0.020	0.980	NO	0.254	0.043	0.957	NO
Bond_SC -> On_PP	-0.031	0.551	0.449	NO	-0.022	0.533	0.467	NO
Brid_SC -> Off_PP	-0.668	1.000	0.000	YES	-0.709	1.000	0.000	YES
Brid_SC -> On_PP	0.087	0.329	0.671	NO	-0.253	0.908	0.092	NO
Relationships	**MF+T_U Vs MF_U**				**MF+T_U Vs MT_U**			
	β(d)	**p value**	**1-p value**	**Sig. 1.7%**	**β(d)**	**p value**	**1-p value**	**Sig. 1.7%**
Bond_SC -> Off_PP	0.229	0.115	0.885	NO	0.075	0.960	0.040	NO
Bond_SC -> On_PP	-0.198	0.802	0.198	NO	-0.413	0.908	0.092	NO
Brid_SC -> Off_PP	-0.196	0.915	0.085	NO	-0.185	0.383	0.617	NO
Brid_SC -> On_PP	0.079	0.318	0.682	NO	0.034	0.044	0.956	NO
Relationships	**LF+T_U Vs LF_U**				**LF+T_U Vs LT_U**			
	β(d)	**p value**	**1-p value**	**Sig. 1.7%**	**β(d)**	**p value**	**1-p value**	**Sig. 1.7%**
Bond_SC -> Off_PP	-0.085	0.647	0.353	NO	-0.290	-0.461	0.394	NO
Bond_SC -> On_PP	0.327	0.043	0.957	NO	0.154	-0.516	0.439	NO
Brid_SC -> Off_PP	-0.135	0.709	0.291	NO	-0.076	-0.439	0.432	NO
Brid_SC -> On_PP	0.038	0.418	0.582	NO	0.093	-0.507	0.498	NO

Table 7.59 presents the results of the non-parametric Confidence Set Approach proposed by Sarstedt et al. (2011) which involves constructing the BCa CI of the path estimates of the two groups to be compared and check whether the path coefficients of the first group fall within the corresponding BCa CI of the second group and vice versa. For two path coefficients to be statistically different, both should not fall within the corresponding BCa CI of the other group. Table 7.59 reports the results of the comparison between the samples of HF+T_U and HF_U. The BCa CI are obtained running the PLS algorithm indicating a maximum of 300 iterations, using the path weighting scheme, a stop criterion of: $1*10^{-7}$ with a number of 5000 bootstrapped samples (Hair et al., 2017). Notably, only the relationship Brid_SC → Off_PP is significantly different in the two groups compared, $\beta_{(HF+T\_U)} = -0.270 \notin$ 98.3% BCa $CI_{(HF\_U)}$ [0.104, 0.669], and $\beta_{(HF\_U)} = -0.397 \notin$ 98.3% BCa $CI_{(HF+T\_U)}$ [-0.590, 0.059].

Table 7.59. Non-Parametric Confidence Set Approach for the Comparison between the Samples of Facebook and Twitter Combined Heavy Users (n = 41) and Facebook Heavy Users (n = 108).

Non - Parametric Confidence Set Approach								
		BCA CI 98.3% of HF_U				BCA CI 98.3% of HF+T_U		
Relationships	β (HF+T_U)	L-B	U-B	Sign. 1.7%	β (HF_U)	L-B	U-B	Sign. 1.7%
Bond_SC -> Off_PP	0.313	-0.369	0.233	YES	-0.057	-0.083	0.581	NO
Bond_SC -> On_PP	0.048	-0.185	0.323	NO	0.079	-0.439	0.409	NO
Brid_SC -> Off_PP	-0.270	0.104	0.669	YES	0.397	-0.590	0.059	YES
Brid_SC -> On_PP	0.459	0.083	0.633	NO	0.372	-0.071	0.878	NO

We conducted all the necessary pairwise comparisons also for T_U and we found that the Confidence Set Approach confirmed the results of the Permutation tests carried out earlier.

Finally, Table 7.60 summarises the results of the sensitivity analysis. Notably, only the relationship Brid_SC → Off_PP in the heavy category of users has been found to be significantly different across all the groups of different SNSs users in the heavy category. Rather, the path coefficients of the relationship Bond_SC → Off_PP were found to differ between the mild users of Facebook and Twitter combined and the mild users of Twitter only in the Permutation test. Yet, provided that the Permutation test may not yield reliable results when samples have large differences like in this case, we accepted the results of the PLS-MGA and of the non-parametric Confidence Set Approach and accept the non-significant difference of the path coefficients of the relationship Bond_SC → Off_PP. The insight of the sensitivity analysis provided additional confidence in the final results obtained.

Table 7.60. Sensitivity Analysis of the Multigroup Pairwise Comparisons Results Across Different Statistical Methods of Analysis.

PLS Multigroup Pairwise Comparisons Results Across Different Statistical Methods						
	HF+T_U Vs HF_U			HF+T_U Vs HT_U		
Relationship	Permutation	PLS-MGA	Confidence Set	Permutation	PLS-MGA	Confidence Set
Bond_SC -> Off_PP						
Bond_SC -> On_PP						
Brid_SC -> Off_PP	**X**	**X**	**X**	**X**	**X**	**X**
Brid_SC -> On_PP						
	MF+T_U Vs MF_U			MF+T_U Vs MT_U		
Relationship	Permutation	PLS-MGA	Confidence Set	Permutation	PLS-MGA	Confidence Set
Bond_SC -> Off_PP						
Bond_SC -> On_PP				**X**		
Brid_SC -> Off_PP						
Brid_SC -> On_PP						
	LF+T_U Vs LF_U			LF+T_U Vs LT_U		
Relationship	Permutation	PLS-MGA	Confidence Set	Permutation	PLS-MGA	Confidence Set
Bond_SC -> Off_PP						
Bond_SC -> On_PP						
Brid_SC -> Off_PP						
Brid_SC -> On_PP						
Note: X indicates significant differences of path coefficients across groups at 1.7% level of significance						

7.4. ASSESSING RESULTS OF TWO-WAY FACTORIAL ANOVA TO ANSWER RESEARCH QUESTION Q4.

This section presents the results of the analysis related to research question Q4, namely whether there are any significant differences in the amount of Bond_SC and Brid_SC displayed by F_U and T_U groups, according to Int_SNSs_Use. The aim is to test for what is called the "interaction effect" of "Type_SNSs_Used" and "Int_SNSs_Use (Field, 2013). To this purpose, two separate two-way factorial ANOVAs with a 2x3 design are carried out for Bond_SC and Brid_SC. (reasons and justifications were discussed in Chapter 6, Section 6.5.2). The next section analyses the assumptions that must be met in order to carry out the two-way factorial ANOVA (Section 7.4.1). Successively, the output of the analysis will be provided for Bond_SC (Section 7.4.2) and Brid_SC (Section 7.4.3).

7.4.1. MEETING THE TWO-WAY FACTORIAL ANOVA ASSUMPTIONS.

To carry out the two-way ANOVA a total of 6 assumptions must be met as discussed in Section 6.5.2. All the assumptions except homogeneity of variance for Brid_SC were met. Indeed:

- The dependent variables Bond_SC and Brid_SC are measured at the interval level using the unstandardized composites scores obtained from the analysis carried out in PLS-SEM (***Assumption 1***).
- Both independent variables (Type_SNS_Used and Int_SNS_Use) are categorical (***Assumption 2***).
- Moreover, the groups analysed are independent (***Assumption 3***).
- Furthermore, an inspection of the data through boxplots for each combination of the independent variables (Figure 7.14 and Figure 7.15) reveals that the data are free from outliers (***Assumption 4***).
- Bond_SC and Brid_SC are approximately normally distributed for each combination of the groups of the two independent variables (***Assumption 5***). Indeed, all the values of Skewness and Kurtosis fall within the acceptable ranges

of ± 1 for Skewness (Field, 2013) and ± 2 for Kurtosis George and Mallery (2020) (Table 7.61).

Figure 7.14. Outliers Investigation for Bonding Social Capital for each combination of Type of SNS Used and Intensity of Use of the SNSs considered.

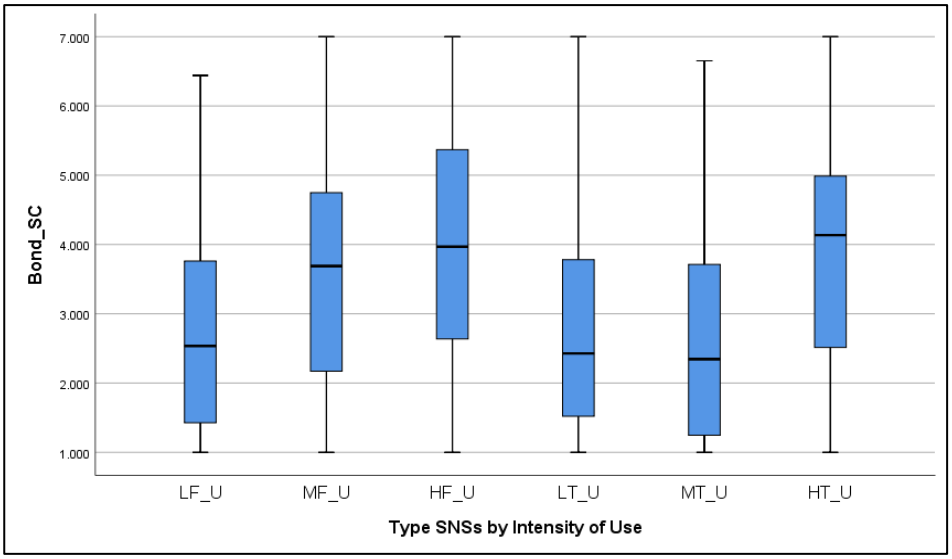


Figure 7.15. Outliers Investigation for Bridging Social Capital for each combination of Type of SNS Used and Intensity of Use of the SNSs considered.

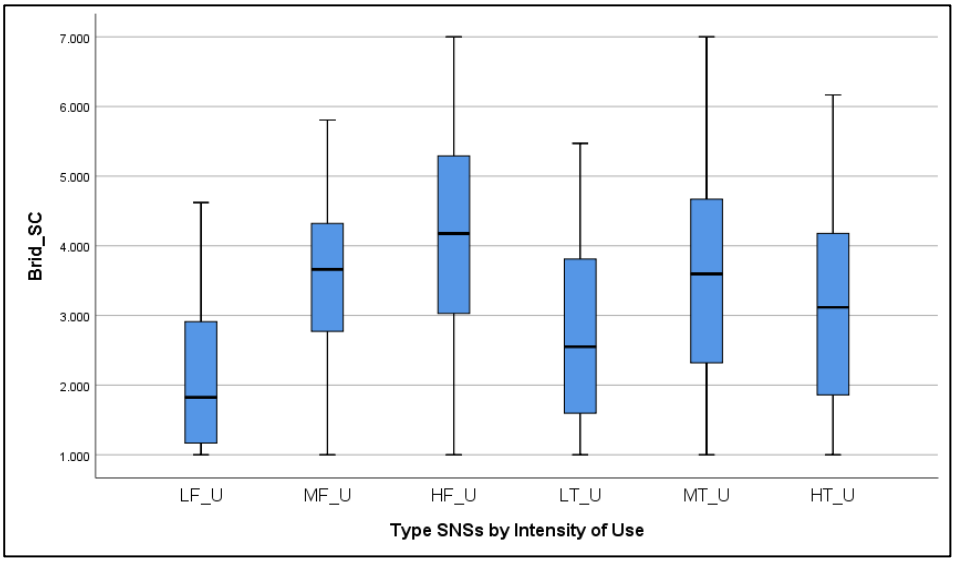


Table 7.61. Skewness and Kurtosis of Groups Split According to Type of SNSs Used and Intensity of Use.

Normality Statistics Summary				
Type_SNS_Use	**Int_SNS_Use**	**Variables**	**Skewness**	**Kurtosis**
Facebook	**Light (n = 99)**	Bond_SC	0.692	-0.489
		SE	0.243	0.481
		Brid_SC	0.654	-0.875
		SE	0.243	0.481
	Mild (n = 162)	Bond_SC	0.084	-0.989
		SE	0.191	0.379
		Brid_SC	-0.354	-0.527
		SE	0.191	0.379
	Heavy (n = 108)	Bond_SC	-0.131	-1.054
		SE	0.233	0.461
		Brid_SC	-0.172	-0.486
		SE	0.233	0.461
Twitter	**Light (n = 95)**	Bond_SC	0.704	-0.317
		SE	0.247	0.490
		Brid_SC	0.314	-1.011
		SE	0.247	0.490
	Mild (n = 186)	Bond_SC	0.741	-0.520
		SE	0.178	0.355
		Brid_SC	0.244	-0.764
		SE	0.178	0.355
	Heavy (n = 88)	Bond_SC	-0.047	-0.893
		SE	0.257	0.508
		Brid_SC	0.317	-0.894
		SE	0.257	0.508

- Finally, we tested for the homogeneity of variances (***Assumption 6***) of Bond_SC and Brid_SC for each combination of the groups of the two independent variables through the Levene's test based on both the mean and the median. This is because the Levene's test based on the means is considered too sensitive especially when sample sizes are large like in the case of this study (Field, 2013). Therefore, George and Mallery (2020) suggest assessing the test based on the median which is less sensitive to sample size. The results of the Levene's tests for homogeneity of variances of Bond_SC and Brid_SC are reported in Table 7.62.

Table 7.62. Levene's Test for Homogeneity of Variances of Online Bonding and Bridging Social Capital for Type of SNSs Used Across different Levels of Intensity of Use.

Levene's Test of Equality of Error Variances[a]					
		Levene Statistic	df1	df2	Sig.
Bond_SC	Based on Mean	0.356	5	732	0.879
	Based on Median	0.416	5	732	0.838
Brid_SC	Based on Mean	5.366	5	732	0.000
	Based on Median	5.472	5	732	0.000

a. Design: Intercept + Type_SNS_Use + Int_SNS_Use + Type_SNS_Use * Int_SNS_Use.

Notably, the assumption of homogeneity of variance is met for Bond_SC ($F_{(5,732)}$ = 0.416, p = 0.838) but not for Brid_SC ($F_{(5,732)}$ = 5.472, p < 0.001). However, when the sample size is large (more than 30 respondents per group according to Field, 2013), small differences in group variances can produce a Levene's test that is significant (Field, 2013). Hence, any decisions regarding the assumption of homogeneity of variances based only on the Lavene's test will be confounded by the sample size. Indeed, even Gearge and Mallery (2020) argued that "*measures of homogeneity of variance act more as a warning than as a disqualifier*" (p. 166) provided that when sample sizes are big the two-way ANOVA is robust to heteroskedasticity especially when the dependent variables have met the assumption of normality like in the case of this study and when sample sizes of the groups to be compared are equal. However, Games and Howell (1976) showed that when the samples sizes are unequal (like in the case of this study see Table 7.63) and heteroskedasticity is confirmed, the p-value yielded by the ANOVA tends to be conservative when the larger variance is associated with the larger sample size. This would increase the type II error. Conversely, Field (2013) argued that when the groups with larger sample sizes have smaller variances than the groups with smaller samples sizes, the resulting F-ratio tends to be liberal increasing the Type I error rate. However, the heteroskedasticity does not affect the ANOVA analysis when variances are proportional to the means (i.e., they increase in unison) even when sample sizes are different. Consistent with the above rationale, we checked the variances for each group of SNSs users involved in the analysis sorting the samples from the smallest to the largest (Table 7.63). Notably, the MT_U sample is not only the largest (n = 186) but has also

the largest variance (σ^2 = 2.452). Hence, if anything, when interpreting results we must be cautious and mention that the two-way ANOVA would report a conservative p-value and will probably reach a lower statistical power compared to an analysis with equal sample sizes.

Table 7.63. Means and Related Variances of Online Bridging Social Capital for each Combination of the Two Independent Variables.

Means and Variances of Online Bridging Social Capital for all SNSs Users Samples			
Groups	***M***	**σ^2**	**N**
HT_U	3.149	1.959	88
LT_U	2.759	1.636	95
LF_U	2.120	1.103	99
HF_U	4.085	2.147	108
MF_U	3.491	1.371	162
MT_U	3.598	2.452	186

Following Field's (2013) guidelines for when heteroscedasticity may be present, we conducted a sensitivity analysis by (**1**) running the HC4 robust tests to heteroskedasticity and by (**2**) bootstrapping the post-hoc tests of the simple effects.

The next two sections provide the relevant output of the two-way ANOVA for Bond_SC and Brid_SC, respectively.

7.4.2. TWO-WAY ANOVA FOR ONLINE BONDING SOCIAL CAPITAL

This section reports the results of the two-way ANOVA performed on Bond_SC. The test is run at 5% level of significance. Table 7.64 shows descriptive statistics for each group that need to be compared and Table 7.65 reports a summary of the two-way ANOVA metrics. Following Field (2018), two effect size were provided, namely the partial eta squared (η_p^2) and the omega squared (ω^2). This is because η_p^2 is more liberal than ω^2 in rendering effect size. Yet, researchers still report η_p^2 for the purposes of comparison with similar studies. The ω^2 effect size is not provided by SPSS and has been computed in excel following the formula provided by Field (2013) below:

$$\omega^2_{\text{effect}} = \frac{\hat{\sigma}^2_{\text{effect}}}{\hat{\sigma}^2_{\text{total}}}$$

E*quation 7.1*

where $\hat{\sigma}^2_{\text{effect}}$ is the variance component of the effect for which we want to compute the omega squared and $\hat{\sigma}^2_{\text{total}}$ is the sum of all the variance components of the variables included in the analysis (Field, 2013: p. 537). Field (2013) suggests that values of 0.01, 0.06 and 0.14 represent small, medium and large effects, respectively, for both effect sizes.

Table 7.64. Descriptive Statistics for Online Bonding Social Capital Scores by Type of SNSs Used and Intensity of Use of SNSs.

Descriptive Statistics Bond_SC				
Type_SNS_Use	**Int_SNS_Use**	***M***	***SD***	**N**
F_U	Light	2.779	1.568	99
	Mild	3.591	1.555	162
	Heavy	3.905	1.689	108
	Total	3.465	1.653	369
T_U	Light	2.787	1.543	95
	Mild	2.649	1.537	186
	Heavy	3.892	1.514	88
	Total	2.981	1.613	369
Total	Light	2.783	1.552	194
	Mild	3.088	1.613	348
	Heavy	3.899	1.609	196
	Total	3.223	1.650	738

Table 7.65. Summary of Two-Way ANOVA for Online Bonding Social Capital.

Tests of Between-Subjects Effects							
Source	**Type III SS**	***df***	***MS***	***F***	**Sig[b].**	η_p^2	ω^2
Corrected Model	210.207[a]	5	42.041	17.137	0.000	0.105	0.099
Intercept	7278.023	1	7278.023	2966.650	0.000	0.802	0.801
Type_SNS_Use	16.986	1	16.986	6.924	0.009	0.009	0.008
Int_SNS_Use	129.508	2	64.754	26.395	0.000	0.067	0.065
Type_SNS_Use* Int_SNS_Use	40.282	2	20.141	8.210	0.000	0.022	0.019
Error	1795.801	732	2.453				
Total	9672.306	738					
Corrected Total	2006.007	737					

a. R Squared = .105 (Adjusted R Squared = .099)
b. Computed using alpha = .05

Notably, the interaction effect of type of SNSs used by the intensity of use of the SNS on Online Bond_SC is significant with $F_{(2,732)} = 8.21$, $p < .001$ and has a small effect size ($\eta_p^2 = .022$, $\omega^2 = .019$). This means that the effect of the intensity of use of SNSs on Online Bond_SC changes when considering different types of SNSs such as Facebook and Twitter and vice versa.

When the interaction effect is significant, Field (2018) advises against interpreting the main effects (p. 814). Rather an analysis of the simple effects must be conducted to break down the interaction effect that is, researchers must look at the effect of one independent variable at all different levels of the second independent variable and vice versa. This would involve conducting a series of t-tests between Facebook and Twitter users for each level of intensity of use (light, mild and heavy) and a series of one-way ANOVA comparing light, mild and heavy users across Facebook and Twitter. The simple effect analysis was carried out in SPSS through the ANOVA framework by modifying the syntax as suggested by Field (2013: p. 531).

Table 7.66 provides the univariate test for differences for Bond_SC between Facebook and Twitter users across each level of intensity of SNS use. Notably, only for the mild category of intensity of use there is a significant difference between Facebook and Twitter users, $F_{(1,732)} = 31.266$, $p < 0.001$, and this effect is small $r = 0.202$. Field (2013) suggests reporting r as an indication of the effect size for the simple effect analysis when this is conducted across two groups (Facebook and Twitter) calculated through the following formula:

$$\sqrt{F\ (df_M, df_R) \Big/ F(1, df_R) + df_R} \qquad \textit{Equation 2}$$

where df_M is the degree of freedom of the model and df_R is the degree of freedom of the residuals. Following Cohen (1988), values between 0.1 and 0.3, between 0.3 and 0.5 and above 0.5 represent small, medium and large effect size respectively.

Table 7.66. Univariate Test for Differences in Online Bonding Social Capital Between Facebook and Twitter Users Across Each Level of Intensity of SNS Use.

Univariate Tests									
Int_SNS_Use		***SS***	***df***	***MS***	***F***	**Sig.**	η_p^2	***r***	**Power[a]**
Light	Contrast	0.003	1	0.003	0.001	0.974	0.000	0.001	0.05
	Error	1795.801	732	2.453					
Mild	Contrast	76.703	1	76.703	31.266	0.000	0.041	0.202	
	Error	1795.801	732	2.453					
Heavy	Contrast	0.009	1	0.009	0.003	0.953	0.000	0.002	0.05
	Error	1795.801	732	2.453					

Each F tests the simple effects of Type_SNS_Use within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05

For light and heavy intensity of use, the differences in mean values of Online Bond_SC between Facebook and Twitter users are not significant and the achieved statistical power of the tests for either level of intensity of use was very low (5%). Analysis of the differences in mean values and their significance together with their 95% CI provides an insight of these results (Table 7.67).

Table 7.67. Pairwise Comparisons of Facebook and Twitter Users Across Each Level of Intensity of Use of SNSs.

Pairwise Comparisons							
						95% CI for Difference	
Int_SNS_Use	**Type_SNS_Use**		**Mean Difference (I-J)**	**SE**	**Sig.[a]**	**Lower Bound**	**Upper Bound**
Light	F_U	T_U	-0.007	0.225	0.974	-0.449	0.434
Mild	F_U	T_U	.941*	0.168	0.000	0.611	1.272
Heavy	F_U	T_U	0.013	0.225	0.953	-0.428	0.455

Based on estimated marginal means

*The mean difference is significant at the .05 level.

a. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

Notably, only in the mild category we have a significant difference. Indeed, mild Facebook Users show, on average, higher levels of Bond_SC (M = 3.59, SD = 1.55)

compared to mild Twitter users (M = 2.65, SD = 1.54) and this difference, $d_{(Mi\text{-}Mj)}$ = 0.94, 95% CI [0.611, 1.272] was statistically significant (p < 0.001).

Similarly, the simple effect analysis of the intensity of use of SNSs across Facebook and Twitter was carried out (Table 7.68). Notably, there are significant differences between light, mild and heavy users of both Facebook, $F_{(2,732)}$ = 14.266, p < 0.001, η_p^2 = 0.038, ω^2 = 0.048, and Twitter, $F_{(2,732)}$ = 14.266, p < 0.001, η_p^2 = 0.051, ω^2 = 0.048.

Table 7.68. Univariate Test for Differences in Online Bonding Social Capital Between Light, Mild and Heavy Users Across Each SNS.

Univariate Tests								
Type_SNS_Use		***SS***	***df***	***MS***	***F***	**Sig.**	η_p^2	ω^2
F_U	Contrast	69.998	2	34.999	14.266	0.000	0.038	0.035
	Error	1795.801	732	2.453				
T_U	Contrast	97.005	2	48.502	19.770	0.000	0.051	0.048
	Error	1795.801	732	2.453				

Each F tests the simple effects of Int_SNS_Use within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05

To ascertain which group (light, mild or heavy users) is different from the others, in both SNSs we run pairwise comparisons with level of significance adjusted through the Sidak correction to control for the familywise error rate (Table 7.69).

The results in Table 7.69 suggest that the intensity of use of a specific SNS affects levels of Bond_SC in both Facebook and Twitter but at different levels of intensity of use. Specifically, the level of Bond_SC is similar for Mild (M = 3.59, SD = 1.55) and Heavy (M = 3.90, SD = 1.69) users of Facebook with a difference $d_{(Mi\text{-}Mj)}$ = -0.314, 95% CI [-0.780, 0.151], p = .287. However, light Facebook users (M = 2.78, SD = 1.57) show significantly lower levels of Bond_SC when compared to both mild and heavy Facebook users with differences in means respectively of $d_{(Mi\text{-}Mj)}$ = – 0.81, 95% CI [-1.290, -0.333] p < 0.001 and $d_{(Mi\text{-}Mj)}$ = -1.13, 95% CI [-1.647, -0.604], p < 0.001.

Table 7.69. Pairwise Comparisons Across Each Level of Intensity of Use of SNSs by type of SNSs used.

Pairwise Comparisons							
						95% CI for Difference[b]	
Type_SNS_Use	Int_SNS_Use		Mean Difference (I-J)	SE	Sig.[b]	Lower Bound	Upper Bound
F_U	Light	Mild	-0.811*	0.200	0.000	-1.290	-0.333
		Heavy	-1.126*	0.218	0.000	-1.647	-0.604
	Mild	Light	0.811*	0.200	0.000	0.333	1.290
		Heavy	-0.314	0.195	0.287	-0.780	0.151
	Heavy	Light	1.126*	0.218	0.000	0.604	1.647
		Mild	0.314	0.195	0.287	-0.151	0.780
T_U	Light	Mild	0.137	0.198	0.865	-0.335	0.610
		Heavy	-1.105*	0.232	0.000	-1.659	-0.550
	Mild	Light	-0.137	0.198	0.865	-0.610	0.335
		Heavy	-1.242*	0.203	0.000	-1.727	-0.757
	Heavy	Light	1.105*	0.232	0.000	0.550	1.659
		Mild	1.242*	0.203	0.000	0.757	1.727

Based on estimated marginal means

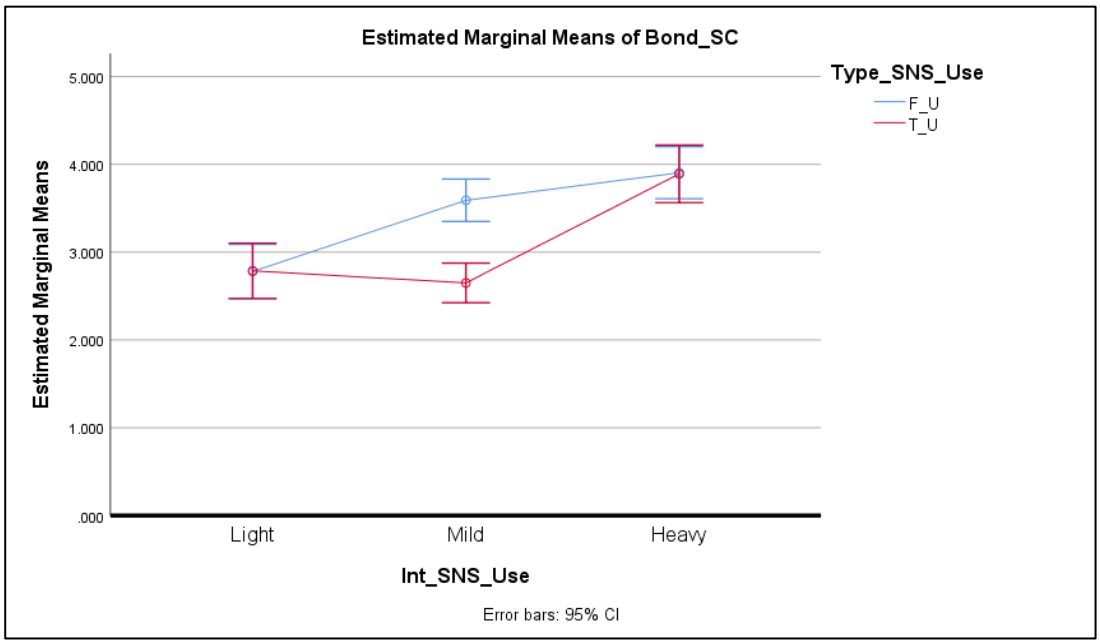
*The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Sidak.

In contrast, Twitter heavy users (M = 3.89, SD = 1.51) showed significantly higher levels of Boind_SC when compared to both mild (M = 2.65, SD = 1.54) and light (M = 2.79, SD = 1.54) Twitter users with differences in means respectively of $d_{(Mi\text{-}Mj)}$ = 1.24, 95% CI 0.757, 1.727], p < 0.001 and $d_{(Mi\text{-}Mj)}$ = 1.10, 95% CI [0.550, 1.659], p < 0.001. However, light and mild users do not significantly differ in levels of Bond_SC with a difference of $d_{(Mi\text{-}Mj)}$ = 0.137, 95% CI [-0.335, 610], p = 0.865.

The interpretation of the interaction effect can be further facilitated by the graphical inspection of the plot of the estimated marginal means of all the groups of SNSs users (Figure 7.16).

Figure 7.16. Plot of the Estimated Marginal Means for the Interaction Effect of Type of SNSs used and Intensity of use of SNSs on Online Bonding Social Capital.



Indeed, the graph shows that the Bond_SC is similar for both Facebook and Twitter users at light and heavy levels of intensity of use, but we can speculate that there is a difference at the mild level. Also, light users of Facebook seem to differ from mild and heavy users of Facebook as the 95% means error bars do not overlap. Yet, the same is probably not true for mild and heavy users of Facebook as their 95% error bars do overlap. For twitter users instead, only heavy users appear to significantly differ from the light and mild users. Hence, the analysis of the plot of the estimated marginal means of Bond_SC confirms the simple main effect analysis results provided in Table 7.67 and Table 7.69. Therefore, the effect for intensity of SNS use interacts with the type of SNS used, that is, the intensity of use of an SNS (or simply put the time spent online) affects Facebook users differently than Twitter users in levels of Bond_SC.

7.4.3. TWO-WAY ANOVA FOR ONLINE BRIDGING SOCIAL CAPITAL

In the following paragraphs we report the two-way ANOVA results to test for the combined effect of the type of SNSs used and their intensity of use on Brid_SC. As discussed in Section 7.4.1, given that the homogeneity of variances was not

unequivocally established across the groups, we employed the H4 robust tests to heteroscedasticity to estimate standard errors and p values for the parameter estimates and bootstrapped the pairwise comparisons of the simple effects. Table 7.70 reports descriptive statistics of the Online Brid_SC variable for each group. Table 7.71 reports a summary of the two-way ANOVA metrics.

Table 7.70. Descriptive Statistics for Online Bridging Social Capital Scores by Type of SNSs Used and Intensity of Use of SNSs.

Descriptive Statistics Brid_SC				
Type_SNS_Use	**Int_SNS_Use**	***M***	***SD***	**N**
F_U	Light	2.120	1.050	99
	Mild	3.491	1.171	162
	Heavy	4.085	1.465	108
	Total	3.297	1.446	369
T_U	Light	2.759	1.279	95
	Mild	3.598	1.566	186
	Heavy	3.149	1.400	88
	Total	3.275	1.496	369
Total	Light	2.433	1.208	194
	Mild	3.549	1.395	348
	Heavy	3.665	1.507	196
	Total	3.286	1.470	738

Table 7.71. Summary of Two-Way ANOVA for Online Bridging Social Capital.

Tests of Between-Subjects Effects							
Source	**Type III SS**	***df***	***MS***	***F***	**Sig[b].**	η_p^2	ω^2
Corrected Model	256.606[a]	5	51.321	28.113	0.000	0.161	0.155
Intercept	6983.437	1	6983.437	3825.411	0.000	0.839	0.829
Type_SNS_Use	0.688	1	0.688	0.377	0.539	0.001	0.000
Int_SNS_Use	183.258	2	91.629	50.193	0.000	0.121	0.118
Type_SNS_Use* Int_SNS_Use	63.178	2	31.589	17.304	0.000	0.045	0.042
Error	1336.295	732	1.826				
Total	9561.944	738					
Corrected Total	1592.901	737					

a. R Squared = .105 (Adjusted R Squared = .099)
b. Computed using alpha = .05

Notably, the interaction effect of type of SNSs used by the intensity of use of the SNS on Brid_SC is significant with $F_{(2,732)} = 17.304$, $p < 0.001$ and represents between a small and a medium effect size, $\eta_p^2 = 0.045$ and $\omega^2 = 0.042$. This means that the effect

of the intensity of use of SNSs on Brid_SC changes according to the different types of SNSs considered (Facebook and Twitter). To break down the interaction effect an analysis of the simple effects was conducted following the same rationale of the previous Section.

Table 7.72 provides the univariate test results for differences in Brid_SC between Facebook and Twitter users across each level of intensity of SNS use and Table 7.73 provides the 95% BCa bootstrapped CI of means differences as results of a sensitivity analysis robust to heteroskedasticity.

Table 7.72. Univariate Test for Differences in Online Bridging Social Capital Between Facebook and Twitter Users Across Each Level of Intensity of SNS Use.

Univariate Tests									
Int_SNS_Use		***SS***	***df***	***MS***	***F***	**Sig.**	η_p^2	***r***	**Power[a]**
Light	Contrast	19.809	1	19.809	10.851	0.001	0.015	0.121	
	Error	1336.295	732	1.826					
Mild	Contrast	0.985	1	0.985	0.540	0.463	0.001	0.027	0.114
	Error	1336.295	732	1.826					
Heavy	Contrast	42.531	1	42.531	23.298	0.000	0.031	0.176	
	Error	1336.295	732	1.826					

Each F tests the simple effects of Type_SNS_Use within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05

Table 7.73. Pairwise Comparisons of Facebook and Twitter Users Across Each Level of Intensity of Use of SNSs.

Pairwise Comparisons							
						95% CI for Difference[a]	
Int_SNS_Use	**Type_SNS_Use**		**Mean Difference (I-J)**	**SE**	**Sig.[a]**	**Lower Bound**	**Upper Bound**
Light	F_U	T_U	-0.639*	-0.001	0.163	0.000	-0.959
Mild	F_U	T_U	-0.107	0.000	0.146	0.458	-0.397
Heavy	F_U	T_U	0.937*	0.008	0.206	0.000	0.485

Based on estimated marginal means

*The mean difference is significant at the .05 level.

a. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

Notably, the type of SNSs used has a significant effect on Brid_SC only at the light and heavy level of usage (Table 7.73). Specifically, light Facebook Users show on average lower levels of Online Bridging Social Capital (M = 2.12, SD = 1.05) compared to light Twitter users (M = 2.76, SD = 1.28) and this difference, $d_{(Mi\text{-}Mj)}$ = -0.64, 95% BCa CI [-0.959, - 0.317] was statistically significant ($p < 0.001$). Also, heavy Facebook Users show on average higher levels of Online Bridging Social Capital (M = 4.09, SD = 1.47) compared to heavy Twitter users (M = 3.15, SD = 1.40) and this difference, $d_{(Mi\text{-}Mj)}$ = 0.94, 95% BCa CI [0.485, 1.377] was statistically significant ($p < 0.001$).

Similarly, an analysis was conducted to test for the simple effect of the intensity of SNSs use (Table 7.74). Notably, there are significant differences between light, mild and heavy users of both Facebook, $F_{(2,732)} = 57.625$, $p < 0.001$, $\eta_p^2 = 0.136$, $\omega^2 = 0.134$, and Twitter, $F_{(2,732)} = 12.632$, $p < 0.001$, $\eta_p^2 = .033$ $\omega^2 = 0.030$. Following Field (2013), pairwise comparisons were run at a significance level adjusted through the Sidak correction and differences estimates were bootstrapped using the BCa method and 2000 samples (Table 7.75).

Table 7.74. Univariate Test for Differences in Online Bridging Social Capital Between Light, Mild and Heavy Users Across Each SNS.

Univariate Tests								
Type_SNS_Use		***SS***	***df***	***MS***	***F***	**Sig.**	η_p^2	ω^2
F_U	Contrast	210.392	2	105.196	57.625	0.000	0.136	0.134
	Error	1336.295	732	1.826				
T_U	Contrast	46.122	2	23.061	12.632	0.000	0.033	0.030
	Error	1336.295	732	1.826				

Each F tests the simple effects of Int_SNS_Use within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Computed using alpha = .05

As evident from Table 7.75 below, the intensity of use of a specific SNS affects levels of Brid_SC in both Facebook and Twitter but at different levels of intensity of use. Indeed, light Facebook users showed significantly lower levels of Brid_SC (M = 2.12, SD = 1.05) than mild (M = 3.49, SD = 1.71) and heavy Facebook users (M = 4.09, SD = 1.47), with differences $d_{(Mi\text{-}Mj)}$ = -1.37, 95% BCa CI [-1.635, -1.100], $p < 0.001$ and $d_{(Mi\text{-}Mj)}$ = -1.97, 95% BCa CI [-2.302, -1.630], $p < 0.001$, respectively. Also, mild Facebook

users (*M* = 3.49, *SD* = 1.71) showed significantly lower levels of Brid_SC when compared to heavy Facebook users (*M* = 4.09, *SD* = 1.47), with a difference in means of $d_{(Mi-Mj)}$ = – 0.6, 95% BCa CI[-0.938, -0.253] *p* = 0.001.

For Twitter, only mild users showed significantly higher levels of Brid_SC (*M* = 3.60, *SD* = 1.57) when compared to both light (*M* = 2.76, *SD* = 1.28) and heavy (*M* = 3.15, *SD* = 1.40) Twitter users with differences in means respectively of $d_{(Mi-Mj)}$ = 0.84, 95% BCa CI [0.491, 1.158] *p* < 0.001 and $d_{(Mi-Mj)}$ = 0.45, 95% BCa CI [0.089, 0.824], *p* < 0.018. Light and heavy users did not significantly differ, $d_{(Mi-Mj)}$ = -0.39, 95% BCa CI [-0.783, 0.040], *p* = 0.051.

Table 7.75. Pairwise Comparisons Across Each Level of Intensity of Use of SNSs by type of SNSs used.

Pairwise Comparisons								
							BCa 95% CI for Difference[b]	
Type_SNS_Use	Int_SNS_Use		Mean Difference (I-J)	Bias	SE	Sig.[a]	Lower Bound	Upper Bound
F_U	Light	Mild	-1.372*	-0.005	0.143	0.000	-1.635	-1.100
		Heavy	-1.965*	-0.003	0.176	0.000	-2.302	-1.630
	Mild	Light	1.372*	0.005	0.143	0.000	1.073	1.662
		Heavy	-0.594*	0.002	0.167	0.001	-0.938	-0.253
	Heavy	Light	1.965*	0.003	0.176	0.000	1.619	2.316
		Mild	0.594*	-0.002	0.167	0.001	0.283	0.916
T_U	Light	Mild	-0.839*	0.006	0.178	0.000	-1.186	-0.462
		Heavy	-0.389	0.005	0.200	0.051	-0.783	0.040
	Mild	Light	0.839*	-0.006	0.178	0.000	0.491	1.158
		Heavy	0.450*	-0.002	0.193	0.018	0.089	0.824
	Heavy	Light	0.389	-0.005	0.200	0.051	0.010	0.754
		Mild	-0.450*	0.002	0.193	0.018	-0.833	-0.085

Based on estimated marginal means

*The mean difference is significant at the .05 level.

a. Adjustment for multiple comparisons: Sidak.

b. Unless otherwise noted, bootstrap results are based on 2000 bootstrap samples

Next, following Field (2013), we run the Games-Howell procedure for pairwise comparisons (Table 7.76), with the purpose of conducting a sensitivity analysis and test the robustness of the results to heteroskedasticity and unequal sample size.

We also run a robust analysis based on confidence intervals and p values less sensitive to heteroskedasticity of data using the HC4 method suggested by Field (2018).

The results are reported in Table 7.77. Overall, the sensitivity analysis confirms previous results improving the reliability of the analysis and increasing confidence in our findings.

Table 7.76. Games-Howell Pairwise Comparisons of Different Levels of Intensity of Use across Facebook and Twitter Users for Online Bridging Social Capital.

Games-Howell Pairwise Comparisons of Online Bridging Social Capital							
						BCa 95% CI for Difference[a]	
Type_SNS_Use	Int_SNS_Use		Mean Difference (I-J)	Bias	SE	Lower Bound	Upper Bound
F_U	Light	Mild	-1.372	-0.003	0.140	-1.654	-1.109
		Heavy	-1.965	-0.001	0.181	-2.317	-1.612
	Mild	Light	1.372	0.003	0.140	1.098	1.673
		Heavy	-0.594	0.002	0.172	-0.925	-0.263
	Heavy	Light	1.965	0.001	0.181	1.610	2.322
		Mild	0.594	-0.002	0.172	0.247	0.931
T_U	Light	Mild	-0.839	-0.004	0.173	-1.178	-0.516
		Heavy	-0.389	-0.005	0.194	-0.741	0.030
	Mild	Light	0.839	0.004	0.173	0.487	1.207
		Heavy	0.450	-0.001	0.188	0.082	0.818
	Heavy	Light	0.389	0.005	0.194	-0.018	0.797
		Mild	-0.450	0.001	0.188	-0.831	-0.077

Based on observed means

a. Unless otherwise noted, bootstrap results are based on 2000 bootstrap samples.

Table 7.77. Confidence Intervals and p Values for Online Bridging Social Capital robust to heteroskedasticity.

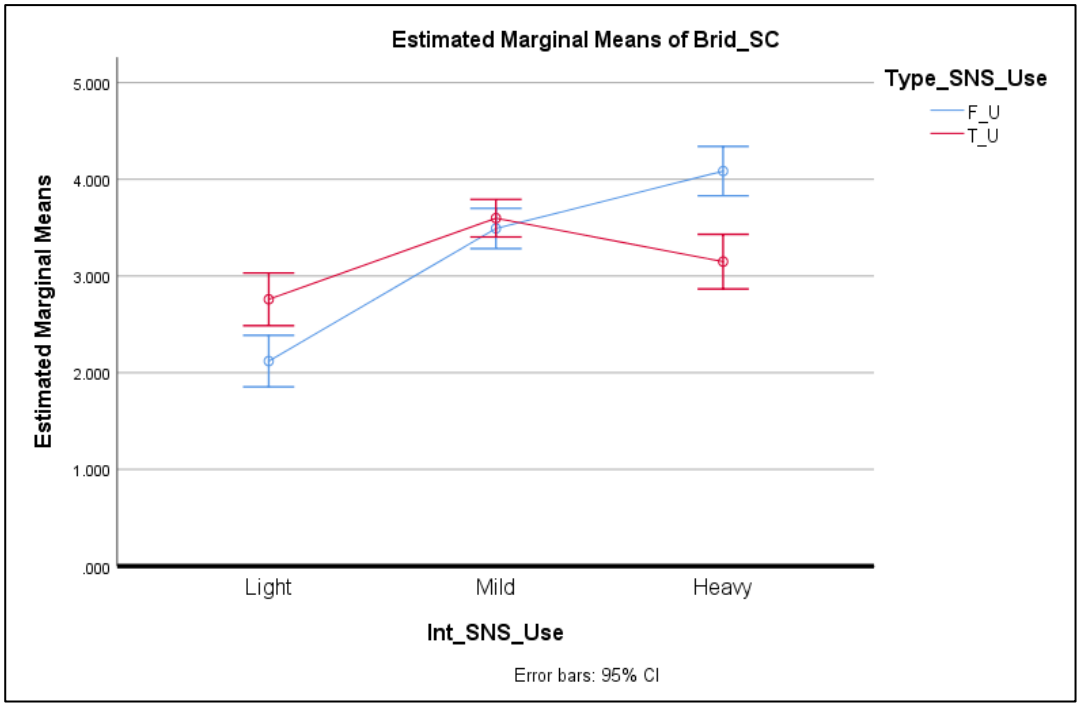
Parameter Estimates with Robust Standard Errors for Bridging Social Capital								
		Robust			95% CI			
Parameter	B	SE[a]	t	Sig.	Low	Up	η_p^2	Power[b]
Intercept	3.149	0.150	21.056	0.000	2.855	3.442	0.377	
[Type_SNS_Use=F_U]	0.937	0.206	4.556	0.000	0.533	1.340	0.028	
[Int_SNS_Use=L]	-0.389	0.199	-1.957	0.051	-0.780	0.001	0.005	0.498
[Int_SNS_Use=M]	0.450	0.188	2.386	0.017	0.080	0.820	0.008	
[Type_SNS_Use=F] * [Int_SNS_Use=I]	-1.576	0.266	-5.926	0.000	-2.098	-1.054	0.046	
[Type_SNS_Use=F] * [Int_SNS_Use=M]	-1.043	0.253	-4.128	0.000	-1.539	-0.547	0.023	

a. HC4 method

b. Computed using alpha = .05

The results of the analysis are further validated and confirmed by the graphical inspection of the plot of the estimated marginal means of Brid_SC (Figure 7.17).

Figure 7.17. Plot of the Estimated Marginal Means for the Interaction Effect of Type of SNSs used and Intensity of use of SNSs on Online Bridging Social Capital.



7.5. ASSESSING RESULTS OF TWO-WAY FACTORIAL ANOVA TO ANSWER RESEARCH QUESTION Q5.

This Section presents the results of the analysis addressing research question Q5, and tests for any significant differences in the amount of Off_PP and On_PP displayed by Facebook and Twitter users (Type_SNS_Used), according to their intensity of use. Hence, we aimed to test for "interaction effect" between "Type_SNS_Used" and Int_SNS_Use". To answer research question Q5, the non-parametric Aligned Rank Transform Test (ART) was used because the assumptions to carry out a parametric ANOVA were not met (see Section 7.5.1.) The results are provided in Section 7.5.2 for Off_PP and in Section 7.5.3 for On_PP.

7.5.1. MEETING THE TWO-WAY FACTORIAL ANOVA ASSUMPTIONS.

The aim of this section is to illustrate that not all the 6 assumptions discussed in Section 6.5.2 to carry out a parametric two-way ANOVA were met. In particular, several outliers were detected for both Off_PP and On_PP (Figure 7.18 and Figure 7.19). Since the outliers were not due to any measurement, typing or entry errors and since no patterns or communality in the outliers' origin were found with respect to demographics, they were retained (Beckman and Cook, 1983; Hair et al., 2017; Iglewicz and Hoaglin, 1993).

Figure 7.18. Outliers Investigation for Offline Political Participation for each combination of Type of SNS Used and Intensity of Use of the SNSs considered.

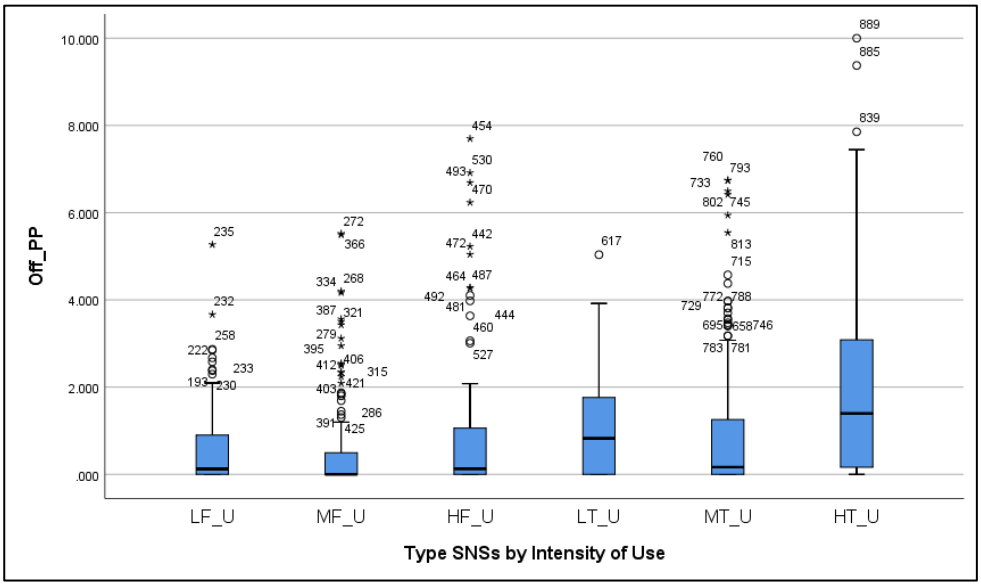
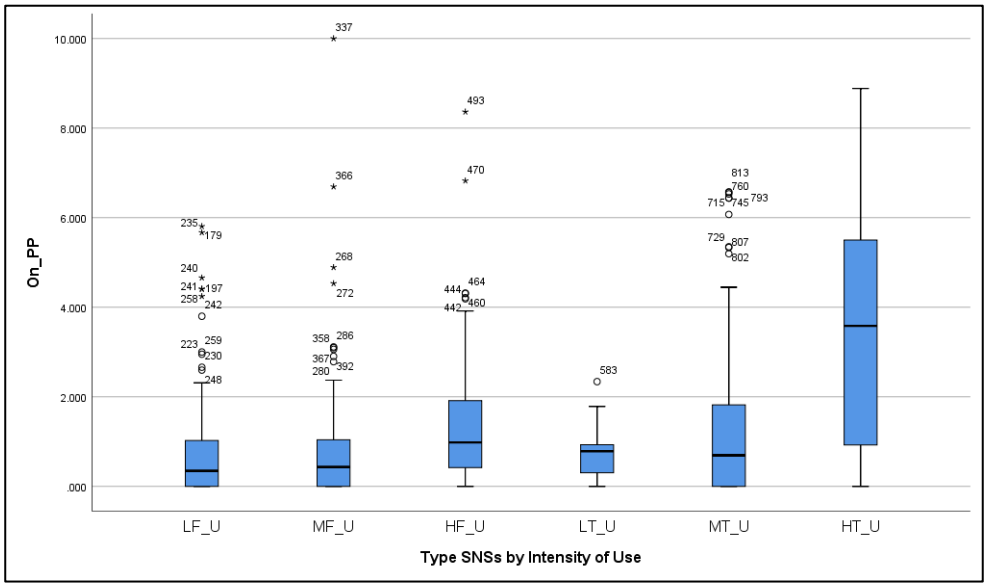


Figure 7.19. Outliers Investigation for Online Political Participation for each combination of Type of SNS Used and Intensity of Use of the SNSs considered.



Consequently, the assumption of normality for Off_PP and On_PP was not met for each combination of the groups of the two independent variables (Table 7.78).

Finally, the assumption of homogeneity of variances of Off_PP and On_PP for each combination of Type_SNS_Used and Int_SNS_Use was not met (Table 7.79).

Indeed, the Levene's test based on the medians yielded a significant result for both Off_PP ($F_{(5,732)} = 11.316$, $p < 0.001$) and On_PP ($F_{(5,732)} = 28.258$, $p < 0.001$).

Table 7.78. Skewness and Kurtosis of Offline and Online Political Participation of Groups of SNSs users Split According to Type of SNSs Used and Intensity of Use.

Normality Statistics Summary				
Type SNS Use	**Int SNS Use**	**Variables**	**Skewness**	**Kurtosis**
Facebook	**Light (n = 99)**	Off_PP	2.171	5.545
		SE	0.243	0.481
		On_PP	2.098	4.126
		SE	0.243	0.481
	Mild (n = 162)	Off_PP	2.667	7.431
		SE	0.191	0.379
		On_PP	4.005	3.146
		SE	0.191	0.379
	Heavy (n = 108)	Off PP	2.419	5.480
		SE	0.233	0.461
		On PP	2.024	5.813
		SE	0.233	0.461
Twitter	**Light (n = 95)**	Off PP	1.156	0.940
		SE	0.247	0.490
		On_PP	0.522	0.218
		SE	0.247	0.490
	Mild (n = 186)	Off_PP	2.029	3.793
		SE	0.178	0.355
		On_PP	1.730	2.612
		SE	0.178	0.355
	Heavy (n = 88)	Off_PP	1.353	1.390
		SE	0.257	0.508
		On PP	0.192	-1.099
		SE	0.257	0.508

Table 7.79. Levene's Test for Homogeneity of Variances of Offline Political Participation for Type of SNSs Used Across different Levels of Intensity of Use.

Levene's Test of Equality of Error Variances[a]					
		Levene Statistic	**df1**	**df2**	**Sig.**
Bond_SC	Based on Mean	18.706	5	732	0.000
	Based on Median	11.316	5	732	0.000
Brid_SC	Based on Mean	36.287	5	732	0.000
	Based on Median	28.258	5	732	0.000

a. Design: Intercept + Type_SNS_Use + Int_SNS_Use + Type_SNS_Use * Int_SNS_Use.

Therefore, for both On_PP and Off_PP we conducted non-parametric two-way ANOVAs in R through the ART test using the *ARTool* package (see Section 6.5.3). To further test the robustness of the results to heteroskedasticity and unequal sample sizes, we also conducted the Games-Howell test for the post-hoc pairwise comparisons and the HC4 test in SPSS (Field, 2013).

The next two sections will provide the relevant output of the two-way ANOVA analysis for Off_PP and On_PP respectively.

7.5.2. ART TEST FOR OFFLINE POLITICAL PARTICIPATION

This Section presents the results of the ART test and the sensitive analysis of the Games-Howell procedure and the HC4 test conducted to test the combined effect of the type of SNSs used and their intensity of use on Off_PP. Table 7.80 reports descriptive statistics of the Offline Political Participation variable for each combination of the two independent variables (Type_SNS_Use and Int_SNS_Use). Table 7.81 reports the results of the ART test.

Table 7.80. Descriptive Statistics of Offline Political Participation Scores by Type of SNSs Used and Intensity of Use of SNSs.

Descriptive Statistics Off_PP				
Type_SNS_Use	**Int_SNS_Use**	***M***	***SD***	**N**
F_U	Light	0.611	0.966	99
	Mild	0.534	1.052	162
	Heavy	0.919	1.656	108
	All F_U	0.667	1.248	369
T_U	Light	1.092	1.136	95
	Mild	0.925	1.514	186
	Heavy	2.066	2.349	88
	All T_U	1.240	1.734	369
Total	Light	0.847	1.077	194
	Mild	0.743	1.332	348
	Heavy	1.434	2.072	196
	All F_U and T_U	0.954	1.536	738

Table 7.81. Summary of the ART test for Offline Political Participation.

Tests of Between-Subjects Effects							
Source	**Type III SS**	***Df*[b]**	***MS***	***F***	**Sig[a].**	η_p^2	ω^2
Type_SNS_Use	2681245.256	1	2681245.256	68.414	0.000	0.085	0.084
Int_SNS_Use	1656528.097	2	828264.048	20.186	0.000	0.052	0.049
Type_SNS_Use* Int_SNS_Use	1243366.062	2	621683.031	14.926	0.000	0.039	0.036

a. Computed using alpha = .05
b. Residuals *df* = 732

The interaction effect of type of SNSs used by the intensity of use of the SNSs on Off_PP is significant with $F_{(2,732)} = 14.926$, $p < 0.001$, and exert between a small and medium effect ($\eta_p^2 = 0.039$ and $\omega^2 = 0.036$).

Consistently with Field's (2013) suggestions, to break down the interaction effect an analysis of the simple effects was conducted. Table 7.82 provides the results of the pairwise comparisons for differences in Off_PP between Facebook and Twitter users across each level of Int_SNS_Use. Notably, the type of SNSs used has a significant effect on Off_PP at each level of usage.

Table 7.82. Robust Results of the ART two- way ANOVA of Offline Political Participation between Facebook and Twitter Users at each Level of Intensity of Use.

Pairwise Comparisons								
Int_SNS_Use	**Type_SNS_Use**		**Mean Difference (I-J)**	***SE***	**df**	**t-ratio**	**Sig.**	***r***
Light	F_U	T_U	-97.371*	28.396	732	-3.429	0.000	0.125
Mild	F_U	T_U	-51.496*	21.248	732	-2.424	0.015	0.089
Heavy	F_U	T_U	-130.068*	28.393	732	-4.581	0.000	0.167

Based on estimated marginal means
*The mean difference is significant at the .05 level.

Similarly, we run pairwise comparisons for both Facebook and Twitter and their different levels of Int_SNS_Use (Table 7.83), to test for the simple effect of Int_SNS_Use on Off_PP. The results suggest that Int_SNS_Use does not affect levels of Off_PP for Facebook users.

For Twitter, only heavy users (M = 2.07, SD = 2.35) showed significantly higher levels of Off_PP when compared with both light (M = 1.09, SD = 1.14) and mild (M = 0.93, SD = 1.51) users, with differences in means of $d_{(Mi\text{-}Mj)}$ = 0.98, p = 0.003 and $d_{(Mi\text{-}Mj)}$ = 1.14, p < 0.001, respectively.

Table 7.83. Pairwise Comparisons of Levels of Offline Political Participation within the Robust *ART* framework.

Robust ART ANOVA Pairwise Comparisons of Offline Political Participation								
Type_SNS_Use	Int_SNS_Use		Mean Difference (I-J)	SE	df	t-ratio	Sig.[a]	r
F_U	Light	Mild	15.569	27.510	732	0.566	0.572	0.021
		Heavy	-34.383	25.222	732	-1.363	0.173	0.050
	Mild	Light	-15.569	27.510	732	-0.566	0.572	0.021
		Heavy	-49.952	24.561	732	-2.034	0.423	0.075
	Heavy	Light	34.383	25.222	732	1.363	0.173	0.050
		Mild	49.952	24.561	732	2.034	0.423	0.075
T_U	Light	Mild	48.267	29.253	732	1.650	0.099	0.061
		Heavy	-80.257	24.933	732	-3.219	0.001	0.118
	Mild	Light	-48.267	29.253	732	-1.650	0.099	0.061
		Heavy	-128.524	25.581	732	-5.024	0.000	0.183
	Heavy	Light	80.257	24.933	732	3.219	0.001	0.118
		Mild	128.524	25.581	732	5.024	0.000	0.183

Based on estimated marginal means
a. Adjustment for multiple comparisons: Sidak

We further supported and validated the above results by running a sensitivity analysis in SPSS through: (1) the Games-Howell pairwise test procedure, bootstrapping the differences between groups using the BCa method with 2000 samples at a 95% confidence interval (Table 7.84) and (2) the HC4 test (Table 7.85). These tests are robust to heteroskedasticity in presence of unequal sample sizes (Field, 2018).

Table 7.84. Games-Howell Pairwise Comparisons of Different Levels of Intensity of Use across Facebook and Twitter Users.

Games-Howell Pairwise Comparisons of Offline Political Participation							
						BCa 95% CI for Difference[a]	
Type_SNS_Use	Int_SNS_Use		Mean Difference (I-J)	Bias	SE	Lower Bound	Upper Bound
F_U	Light	Mild	0.078	-0.007	0.125	-0.217	0.372
		Heavy	-0.308	-0.004	0.190	-0.780	0.136
	Mild	Light	-0.078	0.007	0.125	-0.382	0.243
		Heavy	-0.385	0.004	0.183	-0.867	0.046
	Heavy	Light	0.308	0.004	0.190	-0.151	0.798
		Mild	0.385	-0.004	0.183	-0.034	0.830
T_U	Light	Mild	0.168	0.001	0.157	-0.195	0.549
		Heavy	-0.973	-0.003	0.278	-1.626	-0.319
	Mild	Light	-0.168	-0.001	0.157	-0.542	0.187
		Heavy	-1.141	-0.004	0.278	-1.855	-0.495
	Heavy	Light	0.973	0.003	0.278	0.286	1.679
		Mild	1.141	0.004	0.278	0.509	1.851

Based on observed means

a. Unless otherwise noted, bootstrap results are based on 2000 bootstrap samples.

Table 7.85. Confidence Intervals and p Values for Offline Political Participation robust to heteroskedasticity.

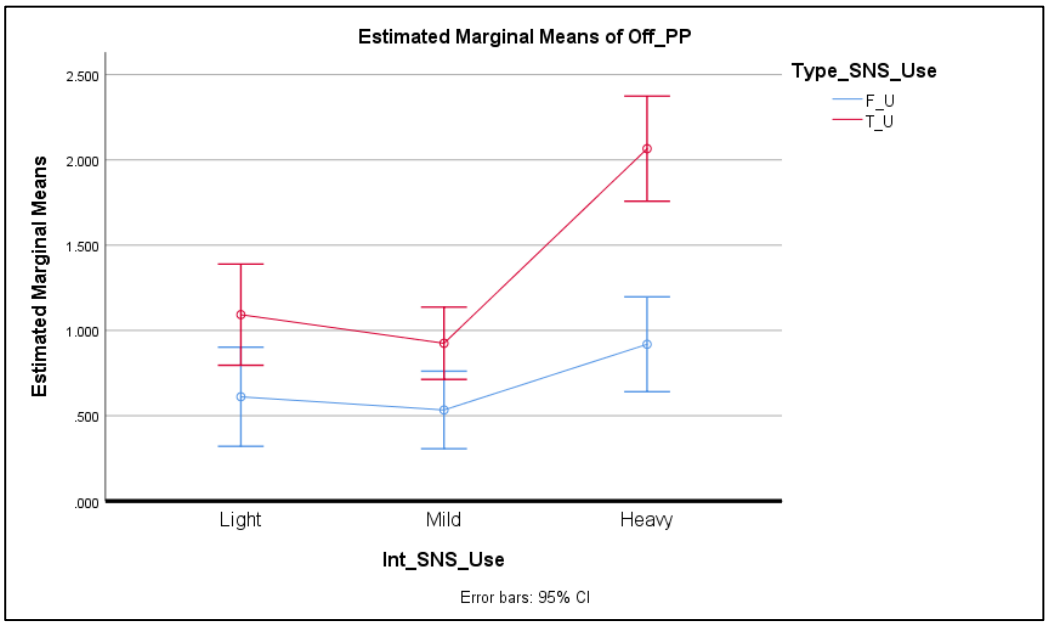
Parameter Estimates with Robust Standard Errors for Offline Political Participation							
		Robust			95% CI		
Parameter	B	SE[a]	t	Sig.	Low	Up	η_p^2
Intercept	2.066	0.251	8.231	0.000	1.573	2.558	0.085
[Type_SNS_Use=F_U]	-1.147	0.297	-3.857	0.000	-1.731	-0.563	0.020
[Int_SNS_Use=L]	-0.973	0.277	-3.517	0.000	-1.517	-0.430	0.017
[Int_SNS_Use=M]	-1.141	0.274	-4.158	0.000	-1.680	-0.602	0.023
[Type_SNS_Use=F] * [Int_SNS_Use=l]	0.666	0.334	1.994	0.047	0.010	1.321	0.005
[Type_SNS_Use=F] * [Int_SNS_Use=M]	0.756	0.328	2.305	0.021	0.112	1.400	0.007

a. HC4 method

b. Computed using alpha = .05

Overall, the sensitive analysis confirms the ART test results and gives us confidence in our conclusions. The interpretation of the interaction effect is further facilitated by the graphical inspection of the plot of the estimated marginal means of Off_PP for all the groups of SNSs users which further confirms the results reported above (Figure 7.20).

Figure 7.20. Plot of the Estimated Marginal Means for the Interaction Effect of Type of SNSs used and Intensity of use of SNSs on Offline Political Participation.



Finally, it should be noted that since the sample sizes of the groups to be compared have a number of observations either close or above 100, the normality assumption should not be a concern because of the "*central limit theorem*" which states that regardless of the shape of the population, parameters estimates of that population will have a normal distribution provided that the samples are large enough (Field, 2013). Moreover, the two-way ANOVA is known to be robust against violations of normality and heteroskedasticity especially when sample size is above 30 (see Section 7.4.2). Accordingly, we conducted a parametric two-way ANOVA which further confirmed our findings.

7.5.3. ART TEST FOR ONLINE POLITICAL PARTICIPATION

This Section presents the results of the two-way ANOVA conducted to test the combined effect of the type of SNSs used and their intensity of use on Online Political Participation (On_PP). Consistently with the previous Section, we employed the ART test and conducted robust tests to heteroscedasticity and unequal sample sizes like the Games-Howell and the HC4 tests.

Table 7.86 reports descriptive statistics of On_PP for each combination of the two independent variables (Type_SNS_Use and Int_SNS_Use) and Table 7.87 shows

the results of the ART test. Notably, the interaction effect of type of SNSs used by the intensity of use of the SNSs on On_PP is significant with $F_{(2,732)} = 33.777$, $p < 0.001$, $\eta_p^2 = 0.084$ and $\omega^2 = 0.082$. This suggests that the effect of the intensity of use of SNSs on Online Political Participation changes according to the different types of SNSs considered such as Facebook and Twitter and vice versa.

Table 7.86. Descriptive Statistics of Online Political Participation Scores by Type of SNSs Used and Intensity of Use of SNSs.

Descriptive Statistics On_PP				
Type_SNS_Use	**Int_SNS_Use**	***M***	***SD***	**N**
F_U	Light	0.883	1.303	99
	Mild	0.782	1.223	162
	Heavy	1.399	1.429	108
	All F_U	0.990	1.331	369
T_U	Light	0.702	0.503	95
	Mild	1.213	1.577	186
	Heavy	3.432	2.489	88
	All T_U	1.611	1.966	369
Total	Light	0.794	0.997	194
	Mild	1.012	1.437	348
	Heavy	2.312	2.216	196
	All F_U and T_U	1.300	1.706	738

Table 7.87. Summary of the ART test for Online Political Participation.

Tests of Between-Subjects Effects							
Source	**Type III SS**	***Df*[b]**	***MS***	***F***	**Sig[a].**	η_p^2	ω^2
Type_SNS_Use	3118333.678	1	3118333.678	76.777	0.000	0.095	0.093
Int_SNS_Use	4625612.170	2	2312806.085	61.792	0.000	0.144	0.142
Type_SNS_Use* Int_SNS_Use	2767319.444	2	1383659.722	33.777	0.000	0.084	0.082

a. Computed using alpha = .05
b. Residuals *df* = 732

An analysis of the simple effects of the two independent variables was conducted in R using the ARTool framework (Wobbrock et al., 2011; Kay and Wobbrock, 2016). Then pairwise comparisons were conducted.

We found that:

- the type of SNSs used has a significant effect on On_PP at each level of usage except for light users (Table 7.88).

- The intensity of use of a specific SNS affects levels of On_PP for both Facebook and Twitter users but at different levels of intensity of use.

  For F_U:

  - the level of On_PP was significantly higher for heavy users (M = 1.40, SD = 1.43) compared to mild (M = 0.78, SD = 1.22) and light (M = 0.88, SD = 1.30) with differences in averages of $d_{(Mi\text{-}Mj)}$ = 0.6, $p < 0.001$ and $d_{(Mi\text{-}Mj)}$ = 0.52, $p < 0.001$ respectively.
  - light and mild Facebook users showed non-significant differences in levels of On_PP, $d_{(Mi\text{-}Mj)}$ = 0.10, p = 0.999.

For T_U:

  - heavy users showed significantly higher levels of On_PP (M = 3.43, SD = 2.49) compared with both mild (M = 1.21, SD = 1.58) and light (M = 0.70, SD = 0.50) users with differences in means of $d_{(Mi\text{-}Mj)}$ = 2.22, $p <$ 0.001 and $d_{(Mi\text{-}Mj)}$ = 2.73, $p < 0.001$, respectively.
  - light and mild users significantly differed in levels of On_PP, $d_{(Mi\text{-}Mj)}$ = -0.51, p = 0.012.

Table 7.88. Results of the ART two- way ANOVA of Online Political Participation between Facebook and Twitter Users at each Level of Intensity of Use.

Pairwise Comparisons								
Int_SNS_Use	Type_SNS_Use		Mean Difference (I-J)	SE	df	t-ratio	Sig.	*r*
Light	F_U	T_U	39.874	28.352	732	1.406	0.160	0.052
Mild	F_U	T_U	-47.561*	21.215	732	-2.242	0.025	0.083
Heavy	F_U	T_U	-131.893*	28.349	732	-4.652	0.000	0.169

Based on estimated marginal means
*The mean difference is significant at the .05 level.

Table 7.89. Pairwise Comparisons of Levels of Online Political Participation within the ART test framework.

Robust ART ANOVA Pairwise Comparisons of Online Political Participation								
Type_SNS_Use	Int_SNS_Use		Mean Difference (I-J)	*SE*	df	t-ratio	Sig.[a]	*r*
F_U	Light	Mild	0.571	25.183	732	0.023	0.982	0.001
		Heavy	-120.529	27.467	732	-4.388	0.000	0.160
	Mild	Light	-0.571	25.183	732	-0.023	0.982	0.001
		Heavy	-119.958	24,523	732	-4.892	0.000	0.178
	Heavy	Light	120.529	27.467	732	4.388	0.000	0.160
		Mild	119.958	24,523	732	4.892	0.000	0.178
T_U	Light	Mild	-58.258	20.894	732	-2.788	0.012	0.103
		Heavy	-212.548	29.207	732	-7.277	0.000	0.260
	Mild	Light	58.258	20.894	732	2.788	0.012	0.103
		Heavy	-204.290	25.541	732	-7.998	0.000	0.283
	Heavy	Light	212.548	29.207	732	7.277	0.000	0.260
		Mild	204.290	25.541	732	7.998	0.000	0.283

Based on estimated marginal means.
a. Adjustment for multiple comparisons: Sidak.

The sensitivity analysis conducted in SPSS through the Games-Howell procedure (Table 7.90) and the HC4 test further confirmed and validated our results.

Table 7.90. Games-Howell Pairwise Comparisons of Different Levels of Intensity of Use across Facebook and Twitter Users.

Games-Howell Pairwise Comparisons of Online Political Participation							
						BCa 95% CI for Difference[a]	
Type_SNS_Use	Int_SNS_Use		Mean Difference (I-J)	Bias	SE	Lower Bound	Upper Bound
F_U	Light	Mild	0.101	-0.003	0.164	-0.191	0.401
		Heavy	-0.516	-0.001	0.189	-0.898	-0.141
	Mild	Light	-0.101	0.003	0.164	-0.445	0.239
		Heavy	-0.617	0.002	0.168	-0.954	-0.284
	Heavy	Light	0.516	0.001	0.189	0.137	0.901
		Mild	0.617	-0.002	0.168	0.291	0.947
T_U	Light	Mild	-0.511	0.000	0.124	-0.776	-0.278
		Heavy	-2.731	-0.002	0.273	-3.241	-2.201
	Mild	Light	0.511	0.000	0.124	0.293	0.755
		Heavy	-2.219	-0.002	0.295	-2.789	-1.620
	Heavy	Light	2.731	0.002	0.273	2.170	3.261
		Mild	2.219	0.002	0.295	1.578	2.818

Based on observed means
a. Unless otherwise noted, bootstrap results are based on 2000 bootstrap samples.

Table 7.91. Confidence Intervals and p Values for Online Political Participation robust to heteroskedasticity.

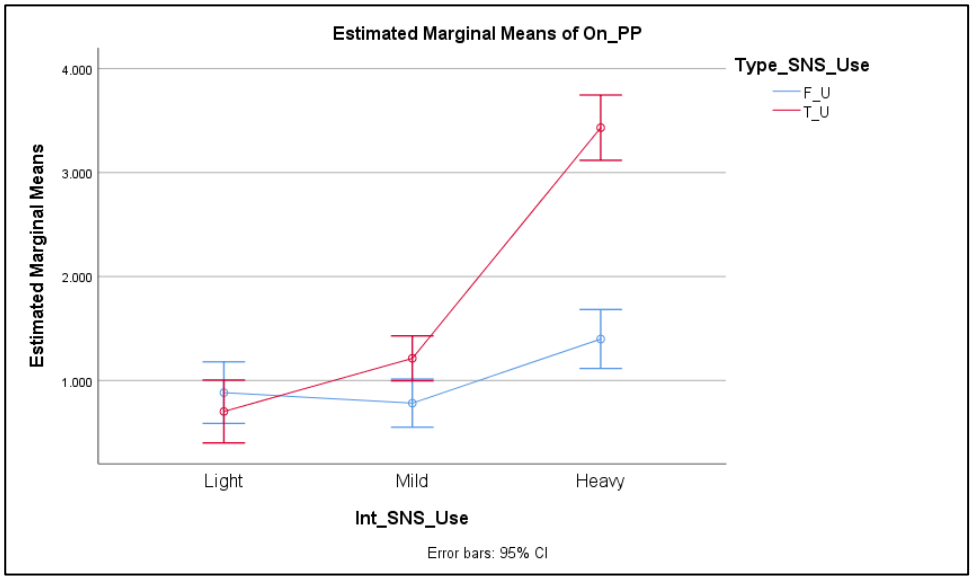
Parameter Estimates with Robust Standard Errors for Online Political Participation							
		Robust			95% CI		
Parameter	**B**	**SE[a]**	**t**	**Sig.**	**Low**	**Up**	**η_p^2**
Intercept	3.432	0.266	12.907	0.000	2.910	3.954	0.185
[Type_SNS_Use=F_U]	-2.033	0.299	-6.791	0.000	-2.621	-1.445	0.059
[Int_SNS_Use=L]	-2.731	0.271	-10.080	0.000	-3.262	-2.199	0.122
[Int_SNS_Use=M]	-2.219	0.290	-7.654	0.000	-2.788	-1.650	0.074
[Type_SNS_Use=F] * [Int_SNS_Use=l]	2.215	0.331	6.693	0.000	1.565	2.865	0.058
[Type_SNS_Use=F] * [Int_SNS_Use=M]	1.602	0.335	4.783	0.000	0.944	2.260	0.030

a. HC4 method
b. Computed using alpha = .05

Finally, following the same rationale of the previous section we conducted a parametric two-way ANOVA which further supported our finding.

The inspection of the plot of the estimated marginal means of On_PP for all the groups of SNSs users further confirms the results reported above (Figure 7.21).

Figure 7.21. Plot of the Estimated Marginal Means for the Interaction Effect of Type of SNSs used and Intensity of use of SNSs on Online Political Participation.



8. RESULTS INTERPRETATION, DISCUSSION AND CONCLUSIONS. IMPLICATIONS FOR THEORY AND PRACTICE AND FURTHER RESEARCH.

Following Hair et al.'s (2017) systematic procedure to apply PLS-SEM analysis (Figure 7.1, Chapter 7) the final stage of any analysis should consist of interpreting the results and drawing conclusions. As part of the results' interpretation process, the research questions are answered and empirical results from the study are explained through extant knowledge in the field. Conclusions on whether empirical findings contradict or confirm prior theoretical knowledge are drawn (Section 8.1); accordingly, contributions of the research to theory and practice are established (Section 8.2). Next, the limitations of the research are presented with respect to theoretical outcomes, research methodology and empirical techniques of analysis employed (Section 8.3). Finally, directions for future research are provided (Section 8.4).

8.1. RESULTS INTERPRETATION, DISCUSSION AND CONCLUSIONS

8.1.1. RESULTS INTERPRETATION AND DISCUSSION FOR Q1

The results of the moderation analysis carried out in Section 7.1 addressed RQ1 and all its sub-questions. Findings indicate that the relationships between Online Social Capital (Bonding and Bridging) and Online and Offline Political Participation depends on (is moderated by) the type of SNS (Facebook or Twitter) used. However, this holds true only if the intensity of use of the SNSs is not controlled for. The research questions and related findings are summarised in Table 8.1.

Table 8.1. Findings Summary for Research Question Q1.

Main Question	Subsidiary Question	Findings
Q1. Does the type of SNS used moderate the relationships between Online Social Capital and Political Participation? To what extent?	**Q1a.** Does the type of SNS used moderate the relationships between **Online Bonding** Social Capital and ***Online Political Participation***? To what extent?	**Yes**. For **Twitter** users, the relationship shows a significantly higher path coefficient than for Facebook users, *but only if the intensity of use of those SNSs is not controlled for*.
	Q1b. Does the type of SNS used moderate the relationships between **Online Bonding** Social Capital and ***Offline Political Participation***? To what extent?	**Yes**. For **Twitter** users, the relationship shows a significantly higher path coefficient than for Facebook users, *but only if the intensity of use of those SNSs is not controlled for*.
	Q1c. Does the type of SNS used moderate the relationships between **Online Bridging** Social Capital and ***Online Political Participation***? To what extent?	**Yes,** *but only when controlling for the intensity of use of those SNSs*. Heavy **Twitter** users show a significantly higher path coefficient than heavy Facebook Users.
	Q1d. Does the type of SNSs used moderate the relationships between **Online Bridging** Social Capital and ***Offline Political Participation***? To what extent?	**Yes**. For **Facebook** users, the relationship shows a significantly higher path coefficient than for Twitter users, *but only if the intensity of use of those SNSs is not controlled for*.

According to the technological determinism principle, technology per se can affect individuals' actions and interactions through its intrinsic features and characteristics (Bimber, 1994; Robins and Webster 1999). Consequently, online SNSs are valuable assets which not only represent the connection among individuals but also may affect perceptions, beliefs, and actions of their members (e.g., Online and Offline Political Participation) according to their specific affordances (Brandtzaeg, 2012; Petrocchi et al, 2015; Phua et al., 2017; Valenzuela et al., 2017). Indeed, we found that the Online Bonding and Bridging Social Capital created on SNSs may significantly predict Online and Offline Political Participation but with some differences according to the type of SNS used, as summarised in Table 8.1 above.

The results support the theoretical reasoning for which the relationships among Online Bonding and Bridging Social Capital and Online and Offline Political

Participation vary in strength depending on the context on which they are formed. This mirrored the assumption of Social Capital formed in offline networks (Coleman, 1998; Knoke and Yang, 2008; 2019). For example, the network of a local Roman Catholic Church is different from the network of a workplace. Networks are shaped by different values and whilst the former would include only Roman Catholic faithful, the latter would incorporate a variety of beliefs and faith ultimately leading to different types and levels of participation. For instance, the church network can probably push civic participation in local community activities being rooted on small local realities. The workplace network can instead widen the horizon of its members given that it can provide relationships with people of different cultural backgrounds and push them to be engaged in activities that go beyond local geographic boundaries. This discussion supports the argument that the relationship between Social Capital and Political Participation is not a homogeneous entity, rather it varies depending on the type and context of the network (offline) in which people are involved. The same reasoning appeared to hold true also in the online environment with respect to Facebook and Twitter social networks.

Furthermore, this study found that the intensity of use of the SNSs moderated the relationship between Bridging Social Capital and both Online and Offline Political Participation in the Twitter users' sample (Section 7.2.4). Hence, to properly ascertain the moderating effect of the type of SNS used and adequately answer research question Q1, we controlled for the intensity of use of Facebook and Twitter by splitting each sample into Heavy, Mild and Light users through the quartile split method. Then we tested for differences across groups using a series of Permutation tests across each level of intensity of use. The results showed that, when controlling for the intensity of use of Facebook and Twitter, the type of SNS used (Facebook/Twitter) moderated only the relationship Brid_SC → On_PP, in the heavy category with Twitter Users showing significantly higher paths coefficients compared with Facebook users.

The results suggest that the differences in the strength of the relationships between Online Social Capital and Online and Offline Political Participation between Facebook and Twitter users are not due to differences in the thematic focuses, functions and intrinsic characteristics of those online networks (like it is for the offline networks) but rather to differences in the level of their intensity of use. Yet, it could be argued that the intensity of use of a SNS is a function of its specific affordance. Indeed, it is not surprising that Facebook users were found to spend, on average, 44 minutes online

compared with 32 minutes on Twitter. This could be due to differences in the communication affordance of those two SNSs. Indeed, Twitter communication is centred on brief messages no longer than 280 characters (140 until 2017), as opposed to Facebook, which allows users to upload lengthier and more elaborated posts (Small, 2011). As a result, Facebook users are more likely to read the posts published by their closer contacts, to whom they feel more emotionally connected (Kaun and Stiernstedt, 2014). Hence, Facebook is more focused on reciprocal social interaction compared with Twitter (Petrocchi et al., 2015; Huberman et al., 2009) and is mostly used to satisfy the needs for belongingness, social connectedness, interaction and self-presentation (Nadkarni and Hofmann, 2012). This inevitably increases the time people spend on Facebook compared with Twitter.

However, spending more time on Facebook does not result in higher levels of Offline and Online Political Participation compared to Twitter. Indeed, our findings suggest that Twitter heavy users are more engaged in online political activities than Facebook heavy users. This could be explained again by the intrinsic characteristics and affordance of the two SNSs. Indeed, Facebook's algorithm shows news and feeds of people that a user interacts the most with, usually close friends and relatives (Bucher, 2012). Accordingly, users are exposed predominantly to like-minded information containing a limited and restricted view of political issues. This does not help to foster political debate and therefore does not facilitate political engagement (Hayat et al., 2016; Himelboim et al., 2013). Moreover, because of the lengthier and more elaborated posts allowed, Facebook users are more likely to spend more time on homogenous like-minded type of information rather than on more heterogeneous type of news. The reverse is likely to happen in Twitter. Indeed, Twitter's algorithm rewards immediacy and recurrence rather than interaction and affinity (Valenzuela et al., 2017). Twitter users are more exposed to content from sources that tweet more often, such as news companies and political groups. As a result, Twitter users are potentially exposed to more novel and timely information provided also by sources with whom they have no strong relationship. Research has shown that the exposure to diverse, opposing and heterogeneous news sources, even if accidental, is a predictor of Political Participation as it may improve deliberative democracy in many ways, such as enhancing mutual understanding, promoting political tolerance, generating political debates, critical reasoning and elaboration of news (Gil de Zuniga et al., 2012; Mutz, 2006; Valenzuela et al., 2009;

Vitak et al., 2011). Furthermore, by allowing users to connect with people they do not know personally, Twitter reinforce "weak ties" which are linked to Bridging Social Capital (Putnam, 2000). Hence, this could explain why our findings suggest that Twitter affordance moderates the relationship between Online Bridging Social Capital and Online Political participation. It must be noted that Online Bridging Social Capital was found to affect both Offline and Online Political Participation at all levels of Intensity of Use, except light users. This is in line with previous studies (e.g., Skoric et al., 2009; Zhong, 2014). However, it seems that for lower levels of intensity of use the relationship is not significant. This result contradicts the "*time displacement logic*" and supports a more optimistic view of SNSs as mobilisation sources (see discussion Chapter 3).

Finally, our results suggest that. on Twitter, the relationships between Online Bonding Social Capital and both Offline and Online Political Participation is significantly stronger than on Facebook. This finding could be due to differences in users' anonymity. Indeed, Twitter allows its users to remain anonymous as they do not need to disclose themselves to express their opinions (Huberman et al., 2009; Woo-Yoo and Gil de Zuniga, 2014), contrary to Facebook. Arguably, anonymity could encourage greater participation online because it resolves the social desirability bias allowing people to publicly take a stand on political matters that can be opposed by close friends and family whose ties form Bonding Social Capital (Collins and Butler, 2003; Towne and Herbsleb, 2012).

8.1.2. RESULTS INTERPRETATION AND DISCUSSION FOR Q2

A moderation analysis through the two-stage approach in PLS-SEM was conducted to ascertain the moderating effect of the time that respondents spent on Facebook and Twitter over the relationships between Online Bonding and Bridging Social Capital and Online and Offline Political Participation. Findings are summarised in Table 8.2.

Notably, only for Twitter Users, the time spent online was a significant moderator with a positive and large effect size on the relationships: (1) Brid_SC → Off_PP and (2) Brid_SC → On_PP, An analysis of the simple effect revealed that for an average level of the moderator variable the simple effect Brid_SC → Off_PP is .171. For higher levels of time spent online (one standard deviation unit above the mean) the relationship Brid_SC → Off_PP increase of .166. For lower levels (mean value of time spent online

minus one standard deviation unit) it decreases of the same amount. Similarly, the simple effect Brid_SC → On_PP is β = .270. For higher levels of time spent online (one standard deviation above the mean) the relationship Brid_SC → On_PP increases by .186 Meanwhile, for lower levels (one standard deviation below) the simple effect Brid_SC → On_PP decreases of the same amount.

The above results were further confirmed through a sensitivity analysis, assessing the models with and without the moderation term with respect to their in-sample and out-of-sample predictive metrics and model fit measures.

Our findings indicate that the time spent online moderates only the relationship between Online Bridging Social Capital and Online and Offline Political Participation and only on Twitter. From a perspective of technological determinism, such differences may be explained by the different technological affordances of Facebook and Twitter.

Indeed, Twitter is known to facilitate the creation of week ties and therefore it promotes Bridging Social Capital as it helps people to connect with more strangers than other social media (Zhang et al., 2010), especially compared with Facebook which, as argued by Woo-Yoo and Gil de Zuniga (2014), is linked to and mirrors the network people have already established offline.

Furthermore, Gil de Zuniga and Valenzuela (2010) found that conversations with weak ties online are strong predictors of civic and political behaviours and Skoric et al. (2009) found that Online Bridging Social Capital was a strong predictor of Online Political Participation. Hence, with its capacity to facilitate weak ties connections, Twitter could arguably encourage Political Participation. Yet, this relationship between Online Bridging Social Capital and Online Political Participation is moderated by the time spent online and (we can further speculate) whether individuals devote that time to online conversation with weak ties. Conversely, Facebook is more centred on recreational and entertainment activities (Petrocchi et al., 2015) which arguably can take the place of more meaningful civic and political activities conducted online, like political discussion with strong ties.

Hence the time spent on Facebook would not necessarily moderate the relationship between Online Bridging Social Capital and Online Political Participation.

Table 8.2. Findings Summary for Research Question Q2.

Main Question	Type of SNSs	Subsidiary Question	Findings
Q2. Does the intensity of use of SNS moderate the relationships between Online Social Capital and Political Participation? To what extent?	Facebook	**Q2a** Does the intensity of use of **Facebook** moderate the relationship between **Online Bonding Social Capital** and ***Offline Political Participation***? To what extent?	**No**
		Q2b Does the intensity of use of **Facebook** moderate the relationship between **Online Bonding Social Capital** and ***Online Political Participation***? To what extent?	**No**
		Q2c Does the intensity of use of **Facebook** moderate the relationship between **Online Bridging Social Capital** and ***Offline Political Participation***? To what extent?	**No**
		Q2d Does the intensity of use of **Facebook** moderate the relationship between **Online Bridging Social Capital** and ***Online Political Participation***? To what extent?	**No**
	Twitter	**Q2e** Does the intensity of use of **Twitter** moderate the relationship between **Online Bonding Social Capital** and ***Offline Political Participation***? To what extent?	**No**
		Q2f Does the intensity of use of **Twitter** moderate the relationship between **Online Bonding Social Capital** and ***Online Political Participation***? To what extent?	**No**
		Q2g Does the intensity of use of **Twitter** moderate the relationship between **Online Bridging Social Capital** and ***Offline Political Participation***? To what extent?	**Yes**, and with a large positive effect
		Q2h Does the intensity of use of **Twitter** moderate the relationship between **Online Bridging Social Capital** and ***Online Political Participation***? To what extent?	**Yes**, and with a large positive effect

Regarding the relationship between Online Bridging Social Capital and Offline Political Participation, we can argue that the moderating effect of the time spent online could once again be linked to Twitter's affordances. Indeed, compared with Facebook, Twitter has been found to be more centred around information and news diffusion and seems to excel in terms of information richness and diversity to the extent that previous research indicates that Twitter resembles mass media (Kwak et al., 2010). Notably, previous studies have documented that informational use of the Internet and the exposure to political news can facilitate people engagement in offline political activities (Bakker

and DeVreese, 2011; Gil de Zuniga et al., 2012). Since Twitter facilitates exposure to news in a higher and more diversified amount compared with Facebook, the relationship between Online Bridging Social Capital and Offline Political Participation could be strengthen by the time spent online, assuming that Twitter users are more exposed to political news or use the social network to retrieve political information (Goldbeck et al., 2010; Pew Research Centre, 2015).

With respect to Bonding Social Capital, the close association among strong ties like relatives and close friends limit their access to more and diversified resources like political news because the resources owned by strong ties are often overlapped (Putnam, 2000). Furthermore, usually strong ties are individuals with common backgrounds and are very likely to have similar views and social networks. Arguably, the type of political news to which people are exposed within strong ties networks are not so diverse and/or so large in terms of amount. And this probably would not change in relation to the time individuals spend online. Moreover, having the same background and vision would probably not facilitate political debate of foster political activities. Indeed, empirical evidence suggests that strong family ties are linked with disengagement from civic activities and with less interest in politics (Alesina and Giuliano, 2011).

Overall, these findings suggest that when investigating the relationship between Online Social Capital and Offline Political Participation, researchers should consider the moderating role of the time spent online on the relationships between Online Bridging Social Capital and Online and Offline Political Participation on Twitter, given the differences in its technological affordances compared with Facebook.

8.1.3. RESULTS INTERPRETATION AND DISCUSSION FOR Q3

To answer research question Q3, we tested the moderating effect of the combined use of SNSs over the relationships between Online Bonding and Bridging Social Capital and Online/Offline Political Participation through a series of Permutation tests in PLS-SEM. Purposely, the group of combined users of Facebook and Twitter was compared with the separate groups of Facebook users and Twitter users. The findings are summarised in Table 8.3.

We found that the combined use of Facebook and Twitter significantly and negatively moderates the relationships between Online Bridging Social Capital and

Online Political Participation. Indeed, the combined users of Facebook and Twitter showed significantly lower path coefficients on the relationship Brid_SC → On_PP when compared with either Facebook users or Twitter users. A significant moderating effect of the combined use of Facebook and Twitter was found also on the relationship Brid_SC → Off_PP but only compared with Facebook users.

Table 8.3. Findings Summary for Research Question Q3.

Main Question	Subsidiary Question	Findings
Q3. Does the combined use of SNSs moderate the relationships between Online Social Capital and Political Participation? To what extent?	**Q3a.** Does the combined use of SNSs moderate the relationships between **Online Bonding Social Capital** and ***Online Political Participation***? To what extent?	**No.**
	Q3b. Does the combined use of SNSs moderate the relationships between **Online Bonding Social Capital** and ***Offline Political Participation***? To what extent?	**No**
	Q3c. Does the combined use of SNSs moderate the relationships between **Online Bridging Social Capital** and ***Online Political Participation***? To what extent?	**Yes,** but only if the time spent online is not controlled for.
	Q3d. Does the combined use of SNSs moderate the relationships between **Online Bridging Social Capital** and ***Offline Political Participation***? To what extent?	**Yes,** but only compared with Facebook users, if the time spent online is not controlled for. **Yes,** for the heavy user category if the intensity of use of SNSs is controlled for.

Yet, when controlling for the intensity of use, the combined use of Facebook and Twitter moderates the relationship Brid_SC → Off_PP. Specifically, the combined users of Facebook and Twitter showed a significantly lower relationship between Online Bridging Social Capital and Offline Political Participation when compared with both Facebook users and Twitter users, but only in the heavy category.

Considering that the interpretation of the results should account for heterogeneity of the samples to avoid misleading conclusions we also examined the pairwise comparisons across different levels of Intensity of Use of different types of SNSs.

The results of this analysis indicated that for the combined heavy users of Facebook and Twitter there is a negative and significant relationship between Online Bridging Social Capital and Offline Political Participation. Conversely, for heavy

Facebook users and heavy Twitter users there was a significant positive relationship between Online Bridging Social Capital and Offline Political Participation. For Twitter in particular, the effect was very large. Arguably, such difference can be due to the time that the users of Facebook and Twitter combined spend online in a logic of "time displacement", according to which the time spent on the Internet reduces the time available to carry out other meaningful social activities like civic and political actions (Nie and Erbring, 2002; Putnam, 2000).

Indeed, an analysis of variances on the intensity of use of the SNSs conducted through a Kruskal-Wallis test revealed that the time spent online was significantly different across the three type of users, namely Facebook, Twitter, Facebook and Twitter combined in the heavy category. Specifically, we found that Facebook and Twitter combined heavy users spent on average 240 minutes per day on those SNSs, meanwhile Facebook users spent 124 minutes and Twitter users 92 minutes. However, heavy Facebook users and heavy Twitter users did not significantly differ in minutes spent online in a day. Given that the more SNSs an individual use, the more time he/she spends online compared with people who use only one or few SNSs, the time displacement logic could hold true for those Internet users. Indeed, although Facebook heavy users and Twitter heavy users spend respectively around two hours and one and a half hour per day online, probably this would not prevent them from engaging in offline political activities.

This reasoning is further confirmed by the analysis of the Facebook and Twitter combined users in the mild usage category which show similar patterns to the comparisons made above to Facebook and Twitter users only. Moreover, these differences in moderation effects could be exacerbated by the intrinsic characteristics and features of Facebook and Twitter. Indeed, Gil de Zuniga et al. (2016) suggest that social media change the structure and nature of social connections, and therefore they may alter the nature of the relationship between Social Capital and Political Participation. In short, how people are connected to one another matters for Political Participation (Gil de Zuniga et al., 2016). This is particularly true if we consider the final aim and the content of the two SNSs, whereby Twitter has a more informational role, based on the spread of news and reciprocal exchange and injection of information (e.g., political news, mobilizing information, contacting, etc.) by relying on weaker, more heterogeneous, social ties (Lin and Qiu, 2013; Velenzuela et al., 2017).

Indeed, extant empirical evidence suggests that weak ties are more important for Political Participation and that the SNSs' news content is related to greater Political Participation offline (Gil de Zuniga et al., 2012). Even if exposure to news is incidental, they may still become influential as they have been shared or posted online by a trusted network (Bode, 2012). Conversely, Facebook users connect with individuals with whom they already have an existing relationship and/or shared identity offline (Ellison et al., 2007). This is because connection in this case is reciprocal and needs approval from the counterpart to be established and eventually start sharing information (Vitak et al., 2011) (meanwhile on Twitter such approval is not needed). Hence, Facebook is more helpful for the maintenance of existing social ties, including family, as well as current and old friends and as such may facilitate the connection with strong ties which constitute Bonding Social Capital. As a result, and contrary to Twitter, Facebook does not facilitate connection with people who are not known personally to the user, such as politicians, commentators, news organizations, journalists, or any opinion leader (Valenzuela et al., 2017). Arguably, drawing from strong homogenous ties, Facebook users may acquire more redundant information as close-knit networks will usually hold similar views and may provide equivalent information (Gil de Zuniga and Valenzuela, 2011).

The above discussion based on empirical evidence mirrors the results of our analysis, which indicates that the relationship between Online Bridging Social Capital and Offline Political Participation is very strong on Twitter (facilitates creation of weak ties and diffusion of more heterogenous information) and medium on Facebook (does not facilitate creation of weak ties and provide more homogenous redundant information) for heavy users. Yet, when it comes to the combined use of those SNSs the relationship is negative. Arguably this could be due to the fact that Facebook is more focused on entertainment and emotional expression (Groshek and Dimitrova, 2011; Towner, 2013) and, because of this, people tend to spend more time on it than on Twitter. Indeed, Facebook and Twitter combined users spent on average 56 minutes on Facebook and 29 on Twitter. Hence, they will be less exposed to information coming from weak ties and are more involved in strong ties activities which do not facilitate Offline Political Participation. Hence, content and intrinsic characteristics of SNSs also known as the technological affordance principle and the time displacement logic may explain the moderation effect of the combined use of SNSs on the relationship between Online Bridging Social Capital and Offline Political participation.

8.1.4. RESULTS INTERPRETATION AND DISCUSSION FOR Q4

To answer research question Q4 in Section 7.4 we presented the empirical results from two separate two-way (factorial) ANOVAs, designed to ascertain the extent to which levels of Online Bonding and Bridging Social Capital differ across different types of SNSs (Facebook and Twitter) and different levels of intensity of use. Findings are summarised in Table 8.4.

With respect to Online Bonding Social Capital, results showed a significant interaction between the amount of time spent on a SNS and the type of SNS used; levels of Online Bonding Social Capital reported on Facebook and Twitter are affected by the time spend on those SNSs.

Simple effects analysis revealed that when levels of intensity of use were kept constant, Online Bonding Social Capital was significantly higher for Facebook Users (M = 3.59, SD = 1.55) compared with Twitter users (M = 2.65, SD = 1.54), in the mild category. In the light and heavy category non-significant differences were found between Facebook and Twitter users with negligible effect sizes.

These results are partially consistent with the "Context Acquisition Principle" mentioned in the literature review (Coleman, 1998; Putnam, 2000) for which the amount and type of Social Capital differ according to the context in which it is acquired. Yet, it seems that this principle is dependent upon the level of intensity of use of the specific SNS considered.

Moreover, when analysing differences across intensity of use within the same type of SNS, that is differences in light, mild and heavy users across Facebook and then Twitter separately, light Facebook users (M = 2.78, SD = 1.57) showed significantly lower levels of Online Bonding Social Capital compared with both mild (M = 3.59, SD = 1.55) and heavy (M = 3.90, SD = 1.69) Facebook users. Mild and heavy Facebook users showed non significantly different levels of Online Bonding Social Capital.

Heavy Twitter users (M = 3.89, SD = 1.51) showed significantly higher levels of Online Bonding Social Capital when compared to both mild (M = 2.65, SD = 1.54) and light (M = 2.79, SD = 1.54) users. In contrast, light and mild Twitter users did not show significantly different levels of Online Bonding Social Capital.

Table 8.4. Findings Summary for Research Question Q4.

Main Question	Subsidiary Question	Findings
Q4. To what extent do levels of Online Social Capital differ across different types of SNSs employed at different levels of their intensity of use?	**Q4a.** To what extent do the amounts of **Online Bonding Social Capital** differ across different types of SNSs employed, considering different levels of intensity of use of SNSs?	• A significant but small interaction effect was found between the amount of time spent on a SNS and the type of SNS used. • When levels of intensity of use are kept constant, mild Facebook users show significantly *higher* levels of Online Bonding SC than mild Twitter users. • Within the same type of SNS, mild and heavy Facebook users show significantly higher levels of Online Bonding SC compared with light Facebook users. • Heavy Twitter users show significantly higher levels of Online Bonding SC than mild and light users.
	Q4b. To what extent do the amounts of **Online Bridging Social Capital** differ across different types of SNSs employed, considering different levels of intensity of use of SNSs?	• A significant and small to medium interaction effect was found between the amount of time a person spent on a SNS and the type of SNS used. • When levels of intensity of use are kept constant, light Facebook users show significantly *lower* levels of Online Bridging SC than light Twitter users. • Heavy Facebook users show significantly *higher* levels of Online Bridging SC than heavy Twitter users. • Within the same type of SNS, all Facebook user groups showed significant differences among them. The more time people spend on Facebook, the greater is their Online Bridging SC. • Twitter mild users showed significantly higher levels of Online Bridging SC than heavy and light users.

The results in Table 8.4 suggest that the more time a person spends online, the more Online Bonding Social Capital he/she would have independently from the type of SNSs used.

The results undermine the pessimistic view that the Internet reduces or even destroys Social Capital (Putnam, 2000; Norris, 2001) and supports the positive view that the Internet in general, and SNSs in particular, can positively affect Online Social Capital depending on the intensity of use. Yet, the increase in Online Bonding Social Capital is not constant or equal across all the levels of intensity of use (light, mild and heavy), rather it changes accordingly to the type of SNS considered (Facebook or Twitter). Mild and heavy users of Facebook show similar levels of Online Bonding Social Capital but both groups significantly differ from light users. In contrast, heavy Twitter users show significant higher levels of Online Bonding Social Capital compared with mild and light users which instead show similar levels of Online Bonding Social Capital. These results support the context acquisition principle of Social Capital, but they also show that Social Capital is affected by the time spent on the online social network considered.

With respect to Online Bridging Social Capital, there is a significant interaction between the amount of time spent on a SNS and the type of SNS used. This indicates that levels of Online Bridging Social Capital reported by Facebook and Twitter users are affected differently by the time spent on those SNSs.

Simple effects analysis revealed that when the intensity of use is held constant, while studying the effects of the type of SNS used, Online Bridging Social Capital is significantly lower for light Facebook users (M = 2.12, SD = 1.05) compared with light Twitter users (M = 2.76, SD = 1.28). Moreover, heavy Facebook Users showed higher levels of Online Bridging Social Capital (M = 4.09, SD = 1.47) compared with heavy Twitter users (M = 3.15, SD = 1.40). Mild users of Facebook (M = 3.49, SD = 1.17) and Twitter (M = 3.60, SD = 1.57) showed similar levels of Online Bridging Social Capital.

These results are partially consistent with the already mentioned “Context Acquisition Principle” (Coleman, 1998; Putnam, 2000). However, as in the case of Online Bonding Social Capital, results are dependent upon the level of intensity of use of the specific SNS considered. Indeed, differences between Facebook and Twitter users on levels of Online Bridging Social Capital are significant for low and heavy levels of usage, but not for mild usage levels. Moreover, the type of SNS used makes a difference

in the amount of Bridging Social Capital owned, according to the amount of time spent on the specific SNS. Indeed, Twitter seems to facilitate the creation of Online Bridging Social Capital at lower levels of usage compared with Facebook. However, Facebook users show higher levels of Online Bridging Social Capital at higher levels of usage, particularly in the heavy category of users.

Furthermore, when analysing differences across intensity of use within the same type of SNS, that is differences in light, mild and heavy users across Facebook and then Twitter separately, we found that the level of Online Bridging Social Capital was significantly different at each level of intensity of use for Facebook users. Indeed, light Facebook users showed significantly lower levels of Online Bridging Social Capital (M = 2.12, SD = 1.05) than mild (M = 3.49, SD = 1.71) and heavy Facebook users (M = 4.09, SD = 1.47).

Mild Facebook users (M = 3.49, SD = 1.71) showed significantly lower levels of Online Bridging Social Capital when compared with heavy Facebook users (M = 4.09, SD = 1.47). This implies that the more time a person spends on Facebook, the more Online Bridging Social Capital he/she would get. This mirrors what we found for Online Bonding Social Capital in Facebook users and supports once again the positive view for which the use of the Internet in general and of Facebook in particular, can positively affect Online Social Capital (Brooks et al., 2011; Burke et al., 2010; Ellison et al., 2007; Ellison et al., 2011; Hofer and Aubert, 2013; Johnston et al., 2013; Lampe et al., 2013; Resnick, 2002), but depending on its intensity of use.

In contrast, for Twitter, only the mild users category showed significantly higher levels of Online Bridging Social Capital (M = 3.60, SD = 1.57) when compared with both light (M = 2.76, SD = 1.28) and heavy (M = 3.15, SD = 1.40) Twitter users. Light and heavy users did not significantly differ in levels of Online Bridging Social Capital. Also in this case, the intensity of use of social media positively affects Online Bridging Social Capital, but only to some extent. The increase in Online Bridging Social Capital is not constant or equal across all the levels of intensity of use. Specifically, light and heavy users of Twitter show similar levels of Online Bridging Social Capital but both groups have significantly lower levels than mild users.

Overall, these results suggest that the interaction between the type of SNS used and its intensity of use must be taken into account when analysing the effects of social

media over different types of Social Capital, namely Online Bridging and Online Bonding. Indeed, although the two types of Social Capital show similar behavioural patterns on Facebook with respect to different levels of intensity of use (the more time spent online, the higher is the amount of Online Bonding and Bridging Social Capital reported), the same does not hold true for Twitter. Indeed, for Twitter, an increase in usage levels does not always provide a significant increase in the level of Bridging Social Capital. Moreover, for each level of intensity of use, the differences in the amount of Online Bonding and Bridging Social Capital between Facebook and Twitter can be substantial.

Arguably, the opposing contrasting effects found in previous research regarding the effect of the Internet and of SNSs over Social Capital (see Appendix F) can be due to the fact that those studies do not account for such interaction effect.

8.1.5. RESULTS INTERPRETATION AND DISCUSSION FOR Q5

In Section 7.5 we described the results of two separate non-parametric two-way ANOVAs on the levels of Offline and Online Political Participation reported by users of different SNSs (Facebook and Twitter), categorised according to the intensity of use (time spent online) of the social media employed. Findings are summarised in Table 8.5.

For Offline Political Participation, there is a significant interaction between the intensity of SNS use and the type of SNS. Although small, the interaction effect indicates that levels of Offline Political Participation reported by Facebook and Twitter users are affected differently by the time spent on those SNSs.

A simple effects analysis revealed that Twitter users show significantly higher levels of Offline Political Participation at each level of intensity of use (light, mild and heavy) compared with Facebook users. Therefore, regardless of the level of intensity of use Twitter users are more engaged in Offline Political Participation than Facebook users. This is not surprising, since previous studies investigating the nature of the relationship between Facebook use and Offline Political Participation found either no relationship (Gil de Zuniga et al., 2012; Valenzuela et al., 2009) or even a weak negative relationship (Vitak et al., 2011).

Table 8.5. Findings Summary for Research Question Q5.

Main Question	Subsidiary Question	Findings
Q5. To what extent do levels of Political Participation differ across different types of SNSs employed, at different levels of their intensity of use?	**Q5a.** To what extent do levels of **Offline Political Participation** differ across different types of SNSs, considering different levels of Intensity of use of SNSs?	• A significant interaction effect was found between the amount of time a person spent on a SNS and the type of SNS used. The interaction had small /medium effect size. • Across different levels of intensity of use, Twitter users always show significantly higher levels of Offline Political Participation than Facebook users. • Within the same type of SNS, Twitter heavy users showed significantly higher levels of Offline Political Participation compared with all other users. • No significant differences were found across Facebook users.
	Q5b. To what extent do levels of **Online Political Participation** differ across different types of SNSs, considering different levels of Intensity of use of SNSs?	• A significant, medium size interaction effect was found between the amount of time spent on a SNS and the type of SNS used. • Across different levels of intensity of use, Twitter users show significantly higher levels of Online Political Participation than Facebook users, except for the light category where no differences were found. • Within the same type of SNS, Facebook heavy user showed significantly higher levels of Online Political Participation compared with mild and light users. • For Twitter, all users categories showed significantly different levels of Online Political Participation. The more time people spend on Twitter the more politically engaged they are online.

There is very limited extant knowledge, restricted mainly to voting, about the relationship between Twitter usage and Offline Political Participation. DiGrazia et al. (2013) and Towner (2013) found that the amount of attention received by candidates on Twitter is a statistically significant indicator of voting. Moreover, a recent study conducted by the Pew Research Center (2015) showed that some of Twitter's intrinsic features and characteristics may facilitate political engagement and especially voting (a traditional offline political activity).

Scholars have argued that the varying opposing effects of SNSs on Offline Political Participation are the result of differences in content, form, and function of those SNSs (Groshek and Dimitrova, 2011; Towner, 2013). Compared with Facebook, which is more focused on entertainment and emotional expression, Twitter seems to be centred around information and news diffusion and it seems to excel in terms of information richness and diversity compared with other SNSs. Indeed, many political news sources, including journalists, media organizations, politicians, civic activists, and ordinary people post news on Twitter. This circumstance, combined with the fact that 46% of Twitter users follow news organizations on Twitter (Pew Research Center, 2015), could arguably be one of the differentiation elements that would help denote the higher levels of Offline Political Participation compared with Facebook. Indeed, exposure to and consumption of political information have been closely related to Offline Political Participation (Gil de Zuniga et al., 2012).

Moreover, Twitter helps people to connect with more strangers than other social media (Zhang et al., 2010), especially compared with Facebook, where online networks predominantly mirror the offline networks of each individual user (Woo-Yoo and Gil de Zuniga, 2014). Connecting with strangers facilitates the creation of heterogeneous networks and "weak ties", therefore facilitating the creation of Bridging Social Capital (Putnam, 2000). Bridging Social Capital and heterogeneous networks are strongly related to political and civic engagement (Lake and Huckfeldt, 1998; McLeod et al., 1999). This suggests that the intrinsic characteristics of the SNS platforms people use to connect with one another affects the nature of the value derived from those relationships (weak ties versus strong ties).

Furthermore, Twitter allows users to remain anonymous as they do not need to disclose themselves to express their opinions (Huberman et al., 2009; Woo-Yoo and Gil

de Zuniga, 2014). Arguably, anonymity could encourage greater participation online because it resolves the social desirability bias and some people may be willing to publicly take a stand that can be opposed by friends and associates (Collins and Butler, 2003). Yet, interactions in social media permeate to the offline world and facilitate face-to-face political coordination that fuels offline political action (Bakker and de Vreese, 2011; Bennett and Segerberg, 2012; Bennett et al., 2014; Eltantawy and Weist, 2011; Gleason, 2013; Howard and Parks, 2012; Lim, 2012, 2013; Theocharis et al., 2015).

With respect to the intensity of use of SNSs, the results of the simple effect analysis suggest that the intensity of use of a specific SNS affects levels of Offline Political Participation within Twitter users.

However, only Twitter heavy users (M = 2.07, SD = 2.35) showed significantly higher levels of Offline Political Participation when compared with both light (M = 1.09, SD = 1.14) and mild (M = 0.93, SD = 1.51) Twitter users. Light and mild users did not differ.

Therefore, we can speculate that the type of SNS used does affect how the time spent on that SNS influences political activities conducted offline. Light, mild and heavy users of Facebook show similar levels of offline political engagement. Hence, the time spent on Facebook does not have any relevant effects on offline political activities. This is in line with empirical evidence provided in previous studies that argued that hours spent online had either a weak (Bakker et al., 2011) or a negative effect on Political Participation (Vitak et al., 2010). This again could mirror the intrinsic characteristics of Facebook, which is seen as a type of SNS centred on recreational and entertainment activities. These activities could arguably take the place of more meaningful civic and political pursuits in a logic of "time displacement", according to which time spent on the Internet reduces the time available to carry out other social behaviours (Nie and Erbring, 2002; Putnam, 1995, 2000). In contrast, the more time people spend on Twitter, the more they seem to participate in offline political activities, denying the pessimistic view of the "time displacement logic" for Twitter.

The reason could be that "*the more time people spend surfing the net, the more likely they are to access political web sites or news*" (Quintelier and Visser, 2008: p. 413), which in turn would increase the chance of engaging in offline political activities (Gil de Zuniga et al., 2012). This is particularly true for Twitter whose content is much more

centred around political news compared with Facebook (Kwak et al., 2010). Moreover, as mentioned earlier, Twitter allows people to form more heterogenous networks as they would connect with more strangers than on Facebook (Zhang et al., 2010). Heterogeneous networks can stimulate people to participate politically and to debate and change their opinions (Druckman and Nelson, 2003; Mutz, 2002) as they would be more exposed to different and even contrasting information sources. The more heterogenous a network is, the more likely people are to participate in politics (Teorell, 2003).

Overall, the findings suggest that the impact of the type of SNS used on Offline Political Participation aligns with the unique intrinsic characteristics and features of each type of social media. Regardless of the intensity of use, Twitter users are more engaged in offline political activities compared with Facebook users. However, within Twitter, users differ in the level of engagement showed according to the time they spend on this SNS. Indeed, findings suggest that the more time people spend on Twitter the more they tend to engage in offline political activities. However, this finding does not hold true when considering Facebook.

With regards to Online Political Participation, this research found a significant interaction between the amount of time spent on a SNS and the type of SNS used. This indicates that levels of Online Political Participation reported on Facebook and Twitter are affected differently by the time spent on those SNSs.

Simple effects analysis revealed a significant effect of Type of SNS used in all intensity of use categories, except the light one. Significant effects were found in the mild category between Facebook (M = 0.78, SD = 1.22) and Twitter users (M = 1.21, SD = 1.58), and in the heavy category where Facebook users (M = 1.40, SD = 1.43) showed significant lower levels of Online Political Participation compared with heavy users of Twitter (M = 3.43, SD = 2.49). These results mirror the rationale provided earlier for Offline Political Participation, based on the intrinsic features and characteristics of Facebook and Twitter. Indeed, Twitter users show higher levels of Online Political Participation compared with Facebook users, but only at the mild and heavy level of usage of the two SNSs. At the light level there are no significant differences. This again could be due to the higher political informational content of Twitter when compared with Facebook, which may boost the online political activities of its users. Indeed, compared with any other SNSs, Twitter is more used by politicians to disseminate information and

carry out online activities like advertising their political platforms and listening to citizens feedback (Golbeck et al., 2009; Grant et al., 2010; Grčić et al, 2017). Yet, it seems that the effect of the type of SNS used kicks in only at the mild level of usage. At lower usage levels, using Facebook or Twitter would make no difference in levels of online political activities performed. Hence, the level of online political engagement in Twitter and Facebook is dependent upon the intensity of use of those SNSs.

Indeed, we found a significant simple effect of levels of intensity of use on both Facebook and Twitter users. Specifically, the level of Online Political Participation was significantly higher for heavy users (M = 1,40, SD = 1.43) compared with both mild (M = 0.78, SD = 1.22) and light (M = 0.88, SD = 1.30) users of Facebook. In contrast, light and mild Facebook users showed non-significant differences in levels of Offline Political Participation. This implies that the more time is spent on Facebook, the higher the engagement in online political activities. However, this is true only if the users reach a very high level of usage.

For Twitter, all the groups were significantly different from each other. Indeed, heavy users (M = 3.43, SD = 2.49) showed significantly higher levels of Online Political Participation when compared with both mild (M = 1.21, SD = 1.58) and light (M = 0.70, SD = 0.50) Twitter users. Moreover, also light (M = 0.70, SD = 0.50) and mild (M = 1.21, SD = 1.58) users significantly differed in levels of Online Political Participation. This implies once again that the more time people spend on Twitter, the more engaged they are in online political activities, mirroring the results of earlier studies (e.g., Hao et al., 2014; Skoric and Kwan, 2011; Skoric and Poor, 2013; Velenzuela et al., 2009).

Overall, the above discussion suggests that the interaction of the type of SNS used with the intensity of use of those SNSs must be considered when studying the effects of social media on Online and Offline Political Participation. While Twitter users generally show higher levels of engagement in both offline and online political activities, their level of online participation tends to be lower (although non-significantly) than that of Facebook users at the light level of usage. Moreover, while different levels of intensity of Twitter use contribute to a significant difference in the amount of online and offline political activities, the same does not hold true for Facebook. Indeed, for the latter, an increase in usage levels does not provide a significant increase on the level of offline political engagement which is similar for light, mild and heavy users.

Conceivably, the opposing contrasting effects found in previous studies regarding the effect of the Internet, and SNSs in particular, over Political Participation (Boulianne, 2009; Skoric and Zhu, 2015; Theocharis and Lowe, 2015) can be due to lack of consideration for the above mentioned interaction effect.

8.2. CONTRIBUTION TO THEORY AND PRACTICE

This thesis contributes to theoretical knowledge in different academic fields. First, this research advances prior work in the domain of Engagement and Mobilisation Theories by expanding the Resource Mobilisation Theory framework (McCarthy and Zald, 1977) through the moderating effects of the use of different types of SNSs (Facebook and Twitter) in accordance with the principles of Technology Affordance and Technological Determinism. Indeed, our findings suggest that the relationships between Online Bonding and Bridging Social Capital and Political Participation both Online and Offline works differently in Facebook and Twitter.

Secondly, although several studies had already investigated the links between SNSs and citizens' Political Participation, this thesis differs from those investigations in three ways. Firstly, most extant research focuses heavily on the campaign environment (e.g., Dimitrova et al. 2014; Halpern et al., 2017; Rice et al. 2013) to the point that Boulianne (2019) called for more research outside of the electoral context. This research was conducted in a non-electoral period and thus the contributions of the SNSs use to citizens' Political Participation were assessed independently of the electoral process, which usually sees a rise in Political Participation and therefore might yield biased results (Jensen and Anduiza 2012; Larson 2016). Furthermore, this thesis addressed two conceptual weakness characterising many SNSs and Political Participation studies that is an over-generalised approach to the effects of SNSs use (Boulieanne, 2019; Dimitrova, et al., 2014; Valenzuela, 2017; Woo-Yoo and Gil de Zuniga, 2014) and the failure to consider Political Participation as a multidimensional phenomenon (Boulianne, 2015; Gil de Zuniga et al., 2016). Indeed, many earlier studies either did not account for structural differences of the Political Participation construct or failed to carry out any differential comparisons of the SNSs effects on different forms of Political Participation. Indeed, to the best of our knowledge, only two studies (Halpern et al., 2017; Woo-Yoo and Gil de Zuniga, 2014) compared the effects of different types of SNSs on both Online and Offline Political Participation but did not consider the distinction between the Bonding and

Bridging dimensions of Social Capital. This leads to the third differentiating aspect of this thesis, that is the differential analysis of the effects of two dimensions of Online Social Capital (Bonding and Bridging) on two domains of Political Participation (Online/ Offline) rendering a more comprehensive and nuanced picture of the relationships between those variables, while accounting for the different technological affordance of different SNSs and their intensity of use.

Third, this research advances knowledge in the fields of both Online Social Capital and Online and Offline Political Participation by delving into more nuanced connections between them and the use of different SNSs, introducing interaction effects between the different type of SNS used and the time spent on those SNSs which may explain the contrasting empirical evidence in the extant literature (see Chapters 3 and 4). Indeed, our results showed that an interaction effect does exist between the type of SNS employed and the time people spend on that SNS when measuring levels of Bonding/Bridging Social Capital and levels of Offline/Online Political Participation. Our findings highlight the sterility of the debate between different and opposing school of thoughts about the effects of SNSs on Social Capital and Political Participation, namely optimists, normalisers, and pessimists. Contrasting empirical evidence could be due to the lack of consideration of different technological affordances of different SNSs and to a trend towards generalisation of results from one SNS to the entire category of Social Media.

Fourth, this thesis introduces a novel perspective to Political Marketing studies which so far have been heavily criticised for their lack of engagement with theories of democracy, ethics and sociology (Henneberg et al., 2009; O'Shaughnessy, 2001; Ormrod et al., 2013). This shift was advocated by many academics (Henneberg et al., 2004; Ormrod et al., 2013; Savigny and Wring, 2009) and is in line with the Comprehensive Political Marketing (CPM) approach (Lees-Marshment, 2001, 2003) which encourages the creation and integration of Political Marketing Theories with concepts originating from other disciplines. Employing a concept originating from the sociological field like Social Capital as the main element of investigation would provide a new theoretical framework for researchers in Political Marketing that could advance knowledge in engagement and targeting theories meanwhile maximising social, ethical and democratic engagement (see Chapters 3 and 4).

Fifth, this thesis expands on previous SNSs studies in the domain of Media and Communication that have argued that social media affordances facilitate specific political behaviour (Woo-Yoo and Gil de Zuniga, 2014; Halpern, 2017). Integrating the Affordance thesis with the intensity of use of SNSs allowed to test several competing media theories related to media usage against each other (e.g., Time Displacement Theory and Channel Complementarity Theory) in different SNSs and for different types of Political Participation (Online/ Offline).

Moreover, studies on Online Social Capital and Political Participation have been mostly conducted in the US context, while "*empirical work in European countries is still scarce*" (Gustafsson, 2012: p. 1112). Therefore, researchers called for new empirical evidence coming from other contexts, since "*by integrating empirical work made in different national, cultural and demographic context into the existing literature, comparative research will be made easier*" (Gustafsson, 2012: p. 1112). This study answers the call of those researchers and tries to also fill this geographical gap.

With regards to the practical implications of this thesis, contrasting the effects of the affordances of two different SNSs may help practitioners to develop a framework capable of indicating which type of Political Participation (Online/ Offline) can be facilitated by each platform. From a Political Marketing perspective this is relevant in relation to the implementation of effective engagement and targeting strategy of the electorate through the right SNSs for the right type of behaviour. Indeed, our findings suggest that the SNS people use may alter the way in which they participate in the political process affecting the same outcomes of the political process. Understanding whether a specific SNS can enable or inhibit offline or online political behaviour can facilitate marketers' strategic choices with respect to the objectives of their political campaign. Also, understanding how users of different social media have different levels and types of Social Capital would further help Political Marketers for their targeting strategies, given that different types of Social Capital (Bonding/Bridging) have been found to affect Online and Offline Political Participation differently (Boulianne 2015; Skoric and Zhu, 2016).

Finally, political marketers should account for differences in thematic focus and functions of the SNS that they use to reach people since they can affect the relationship between Social Capital and Political Participation. Indeed, the results of the moderation

analysis suggest that the relationship between Social Capital and Political Participation is not a homogeneous entity with respect to the type and context of the network in which people are involved online. This should help political marketers to set more efficient targeting strategies.

8.3. LIMITATIONS

Although this thesis followed best practice and academic rigour in implementing the research process, there are limitations that need to be acknowledged. Such limitations range from issues related to theoretical considerations, sampling strategy and cross-national design, to variables measurement and statistical techniques of analysis.

With regards to *theoretical considerations*, our approach corroborates the claim that Social Capital is an antecedent of Political Participation. Although such causal path was established based on theoretical approaches and previous empirical studies (Gil de Zuniga et al., 2012; Zhang and Chia, 2006; Teorell, 2003), we acknowledge that only longitudinal studies can prove directions of influence (Bryman, 2012). However, due to financial constraints, this study employed a cross-sectional design. Moreover, the assumption that collaborative social norms of trust and reciprocity underpins citizens' political behaviour ignores that most political actions are inherently built on conflict over ideas and competition over scarce resources. Yet, following Lin (2001) we conceptualised Social Capital as a resource which people contend and whose accrual would ultimately bring to political mobilisation.

Moreover, we theorised that the impact of SNSs use on Social Capital and Political Participation is structurally caused (based on the principle of technological affordance) rather than content driven. Hence, we did not distinguish between different motivational use of the SNSs (e.g., informational, entertainment, educational, etc.). However, we acknowledge that SNSs might promote Social Capital and Political Participation by providing information (Gil de Zuniga et al., 2012; Mutz, 2006; Valenzuela et al., 2009; Valenzuela et., 2017; Vitak et al., 2011) or when used for civic or political purposes (Dimitrova et al. 2014). Yet it must be noted that our approach was framed in a technological determinism view. Accordingly, the type of information shared and accessed in each social network is inherent to the structure of the SNS itself (e.g., more homogenous information is accessed on Facebook and more diverse in Twitter due

to different algorithm setting of the two SNSs). Consequently, our results of the moderation analysis on the relationship between Social Capital and Political Participation are limited to the structural aspect of the SNSs which, however, can shape multiple factors ranging from information to SNSs' content related aspect. Also, we did not consider any links between Offline and Online Political Participation even though Online Political Participation was found to permeate to the offline world and facilitate face-to-face political coordination that fuels offline political action (Bennett et al., 2014; Eltantawy and Weist, 2011; Gleason, 2013; Howard and Parks, 2012; Lim, 2012, 2013; Theocharis et al., 2015). However, this was beyond the objective of this research whose final aim was to explore the relationship between Online Social Capital and Offline/Online Political Participation. Moreover, although previous research established that citizens' political identity and psychological orientations can exert a strong effect on their willingness to join and participate in civic and political activities we did not control for those variables in conceptual model. This was done to reduce complexity, following the principle of parsimony (Field, 2013).

With regards to *sampling* and *research design*, this study suffers from a self-selection bias due to the administration of an online survey within a cross sectional design and the use of web-panel sample. Indeed, only those people who are willing to enlist in the panel sample could be reached. This posed a limit to the generalisability of the study and therefore to its external validity (Bryman, 2012; Rea and Parker, 2014). Furthermore, the use of online self-completion questionnaires may affect the ecological validity of the research because the very instruments disrupt the "natural habitat" of the respondents (Bryman, 2012). Yet, the degree of ecological validity of online self-completion questionnaires is still superior to other techniques like experiments, focus groups or face-to-face interviews. Furthermore, cross-sectional studies are typically weak in terms of internal validity. However, we reduced internal validity problems by adopting established theoretical frameworks to build our conceptual model. Moreover, as highlighted in Boulianne (2015) and Skoric et al. (2016) these limitations are common in studies in the field of SNSs use, Social Capital and Political Participation which make large use of cross-sectional design, survey instruments and web panel samples.

With regards to *variable measurements,* we must highlight that the intensity of use of SNSs was measured through a self-reported measure of time spent on social media in hours/minutes of usage per day. We acknowledge that this measurement method is not

flawless (Junco, 2013; Olufadi, 2015; Rosen et al., 2013). Indeed, people may not be able to accurately estimate, or may not remember, the amount of time spent on a SNS. Hence, respondents may provide answers which they feel would reflect well on them or others, increasing the "*social desirability bias*", rather than providing the real time spent on digital platforms. Junco (2013) supports this argument, showing that a better method consists of recording the time spent online through a monitoring software installed on the PC of the respondents. Yet this option was not feasible in this study considering the high number of respondents involved in the survey and the researcher's financial constraints. Moreover, Junco (2013) found that the correlation between self-reported time and actual time was significantly high, while the social desirability bias is usually low in self-administered surveys because of the absence of an interviewer (Bryman, 2012). Yet the results of self-reported measures must always be carefully interpreted.

Moreover, the same variable "Intensity of Use" was trichotomized through the quartile split method to allow for groups comparison to answer research questions Q1, Q3, Q4 and Q5. Notably, trichotomizing a ratio continuous variable presents some drawbacks (Henseler and Fassott, 2010). First, observations that cannot be unambiguously allocated to a single group are dropped off from the analysis. Indeed, the quartiles values are excluded from the analysis as they represent the cut-off points that cannot be unambiguously assigned to any of the groups created. Hence, information is lost. However, such loss of information is a common characteristic of other splitting procedures like the mean or the median split methods. Hence, the choice of the procedure to use should not be focused on the amount of information that could be lost. Rather, the researcher should consider the shape of the distribution of the variable to be split and the possible presence of outliers. Focusing on these aspects, the quartile split method was preferred to the other methods as it is the split procedure suggested when the data is non normally distributed around the mean and there are outliers in the dataset like in this research. Secondly, due to the trichotomization, part of the moderator variable's variance was lost and this could lead to possibly misleading results. However, this is once again a problem of all the split method mentioned above. Hence, the aim here is to acknowledge the limitations of the splitting procedure as a category rather than of the specific method employed.

Moreover, Offline Political Participation did not include the voting activity at the last general election among the measuring items. Yet, the data for this study were gathered

in a non-electoral period and thus citizens' Political Participation was assessed independently of the electoral process, which usually sees a rise in Political Participation and therefore is considered to bias survey results (Jensen and Anduiza 2012; Larson 2016). Following Bryman (2012) suggestions, when employing self-administered completion questionnaires, the memory of respondents should not be stretched too much. Considering that data was gathered between January and February 2019 and that the last election before that time was held in June 2017, we dropped the voting item from the Offline Political Participation scale.

Furthermore, although we tried to isolate platform effects to test for moderation of technological affordance of different SNSs we acknowledge that this differentiation is arbitrary and too simplistic. Indeed, according to Boulianne (2019), 52% of Internet users use multiple SNSs, meaning that a "pure" SNS effect is very difficult to measure. Yet this limitation is common to most of the studies on SNSs.

With regards to the *statistical techniques of analysis* employed, we employed the two-stage approach to answer research question Q2, as recommended by Hair et al. (2017) and Henseler and Chin (2010). Yet this method does not maximise predictive accuracy of the model. Hence, the sensitivity analysis conducted in Section 7.2 on the in-sample and out-of-sample measures of predictive accuracy could be biased as it could provide lower estimates of those metrics. Moreover, prior research indicates that the permutation test is not quite reliable when samples are very different in size like in the case of the analysis conducted to answer research question Q3 (Hair et al., 2018: p. 154). Although a sensitivity analysis was conducted through the employment of the PLS-MGA procedure (Henseler et al., 2009) and the Confidence Set Approach (Sarstedt et al., 2011) which are more robust to unequal sample sizes, it must be acknowledged that also those techniques have some limitations. In particular, the PLS-MGA test is a one-sided test. Using it to test two-sided hypotheses, like in this case, requires subtracting the obtained *p* value of the test from 1 which would allow to find the effect on the other direction. Yet the bootstrapping distributions are not necessarily symmetrical. Hence the mathematical subtraction of the *p* value from 1 can provide misleading results (Hair et al., 2018). Therefore, we employed also the Confidence Set Approach which however is most effective when sample sizes are small (Sarstedt et al., 2011). Yet, carrying out a sensitivity analysis through PLS-MGA and Confidence Set Interval combined increased confidence on our findings as those tests yielded identical result for research question Q3.

8.4. FURTHER RESEARCH

Despite the contribution of this thesis to theoretical and practical fields, there is still more room for further research around Online Social Capital and Online and Offline Political Participation.

This study distinguished between Online and Offline Political Participation and assessed if the use of Facebook and Twitter can affect the relationship between Online Bridging and Bonding Social Capital and those two different arrays of political activities. Future studies could distinguish between Offline Bonding and Bridging Social Capital or could investigate the moderating effects of other types of SNSs. In this thesis the Online/Offline distinction of Social Capital was ignored despite empirical evidence suggesting that each of them can facilitate different types of Political Participation (Boulianne, 2015). This is because the main aim of this study was to focus on online interactions. Moreover, only Facebook and Twitter were considered in this research because at the time in which the study was conducted they were the most used SNSs in UK (www. yougov.co.uk, 2018). Not including other SNSs and thus further groups of users in the analysis was a conscious choice necessitated by the complexity of the study. Indeed, the present research dealt with a wide array of issues: it looked at the links between Bonding and Bridging Social Capital and Offline and Online Political Participation and the moderation effects of the Type of SNSs used, their intensity of use and their combined and not combined use. Considering the intricacy of this project, adding other variables and groups of users would have not met the principle of research parsimony (Field, 2013).

Moreover, this study has focused on the individual dimensions of Social Capital and has not looked at how its collective dimension can affect Political Participation. Indeed, Political Participation is also affected by cultural as well as attitudinal factors (Inglehart. 1997; Moy et al., 2012; Putnam, 2000; Ryfe, 2001). This is linked to difficulties in operationalising something as fuzzy as culture, and the resources required to assess its influence on behaviours and attitudes. For instance, Inglehart (1997) was able to assess the effect of cultural factors on participation thanks to the vast data set provided by World Values Surveys, which covered approximately 60,000 participants in 43 countries, mirroring 70% of the world's population. However, not every study can count

on such an impressive data set. Considerations of the sampling strategy and methodology adopted in the present study have guided the choice of focusing on the individual level.

Future research into social media may also benefit from comparing multiple populations with different demographic or cultural differences. This type of comparative research may help shed light on the social factors that play a role in influencing different demographics to become civic citizens. For example, there might be different effects of media structures on Social Capital in countries with more authoritarian governments and collectivist cultures. Further research comparing culturally different nations across continents with different media systems and their impact on Social Capital might be insightful. Moreover, this thesis focused on the adult population of the UK, but it is possible that different subsets of the population could exhibit different patterns of Social Capital and/or Political Participation. Future research might focus on specific subgroups of populations; for example, young people could be especially likely to form Social Capital through social media sites because they use them more frequently, while older people, on the other hand, could be more likely to build offline Social Capital and engage offline.

Furthermore, the assessment of the effect of the use of SNSs at the individual level should be more nuanced to capture the diversity of social media use. Thus, the analysis of different online activities facilitated by different types of affordances would allow a better and more differentiated understanding of the SNSs' impact on Social Capital and Political Participation (Bakker and de Vreese, 2011). Indeed, previous studies found that users with greater concern over their privacy limited the amount of information they posted on SNSs, and this in turn affected the amount of Social Capital they possessed (Ko and Kuo, 2009; Vitak, 2012). Those who disclosed more information reported greater Bonding and Bridging Social Capital. Yet, no studies have addressed whether this is true for all SNSs given that they provide different levels of anonymity. While we cannot claim to have adequately measured the impact of SNSs use, we were able to explore and compare the potential of different platforms on Political Participation and Social Capital.

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