

# **A Cross-Cultural Evaluation of Individualism and Collectivism on Communication Strategies and Social Identity on Online Social Media**

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requirements of Nottingham Trent University  
for the degree of Doctor of Philosophy

**By**

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# Dedication

This thesis is dedicated to:

My beloved father “Baba”, you are always in my memory and my mother “Maa”, Thank you for always being there. Thank you for your blessings.

My uncle “Sona Jethu” – Thank you for believing in me.

My brother “Rahul”, sister “Priyanka”, my nieces “Ishika”, “Toshumi” and nephew “Deep” - Thank you all for being so encouraging and pushing me to strive harder.

And above all,

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# Abstract

The increase of the use of social network sites (SNS) has given the opportunity for members from all cultures to maintain existing and establish new social connections and also create an online social identity for themselves. Such online communication has now become part of our daily lives, where members from individualist (independent) and collectivist (interdependent) cultures interact with each other. While past research has been successful in understanding the causal role of culture in an offline context which has affects social identity and psychological understanding and decisions members make, the evaluation of how culture effects human behaviour and their social identity in an online environment is limited.

This research aims to address this gap in literature by acknowledging the concept of Social Identity Model of Deindividuation Effect (SIDE) which posits that the level of anonymity in an online environment helps members to depersonalise, thereby helping in social identification of the self and facilitating online relationships and communication. This research particularly evaluates how cultural differences effects online communication, the decisions members making in various psychological outcomes and how if effects their social identities.

This will be achieved by a cross-cultural among Facebook members from individualist country (UK) and collectivist country (India and Indonesia) through a survey and priming experiments. While cultural orientation has been used as an independent variable in the study, psychological variables like online social identity, online self-enhancement, perceived online social support, online trust and online privacy concern has been used as the dependent variables in the study.

The research used a quantitative method approach which was divided into four studies. Study 1 (N = 150) and Study 2 (N = 432) consisted of the online study involving Facebook responses and Study 3 (N = 71) and Study 4 (N = 407) consisted of the priming experiments where cultural orientation was manipulated to check participant responses on various psychological outcome measures.

The results revealed that differences in participant responses existed among both cultures. Priming members with consistent cultural self-construal strengthened their scores on their cultural orientation and when members were primed with inconsistent cultural self-construal, it weakened their scores on their cultural orientation. The causal role of culture was established in some of the outcome measures that will be discussed further.

The results highlight the importance of understanding and acknowledging cultural differences of members using SNSs. This is not just crucial for health professionals trying to incorporate SNSs to implement care to patients, the results also highlight the important responsibility for web developers and network providers fighting privacy issues, online bullying. Additionally, the results are also crucial to social researchers as they try to understand online behaviour and to the members of SNSs itself to help prevent online tension.

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# Chapter One

## Introduction

### 1.1 Overview

The advent of the internet has transformed the way people communicate. People now have progressed from face-to-face communication to communicating over the internet using Social Networking Sites (SNS) like Facebook, Twitter, MySpace, and YouTube, which has become part of our daily lives. The increased use of the internet has revolutionised the way we interact with each other, not just on an interpersonal level, but also when it comes to communicating with our social groups (Raacke & Bonds-Raacke, 2008). While the traditional form of a social network consists of our families, close friends and colleagues, the use of SNS has given the opportunity to not just maintain our old ties but also add new ones (Burke, Marlow, & Lento, 2010; Ellison, Steinfield, & Lampe, 2006; Ellison, Steinfield, & Lampe, 2007). SNS have also been able to help in maintaining long distance relationships (Tosun, 2012) and have also been seen to have psychological benefits such as increased perceptions of social capital (Ellison et al., 2007; Lampe, Ellison, & Steinfield, 2008). However excessive use of SNS has also been linked to addiction (Kuss & Griffiths, 2011; Kuss, Griffiths, & Binder, 2013) and other privacy risks. Although people are aware of the potential risks associated with using SNS, they are still happy to disclose information due to the benefits that come with it (Debatin et al., 2009).

Use of SNS is not a western phenomenon but is a part of daily lives globally due to the accessibility and the availability of the internet. As of September 2016, Facebook alone has 1.71 billion monthly active users, the photo sharing application Instagram had over 500 million monthly active accounts and blogging sites like Tumblr had more than 555 million active bloggers on their sites (Statista, 2016). On Facebook alone the average number of friends is 338 (brandwatch, 2016). Due to the diverse population of its members, an attempt to understand online behaviours on SNS cannot be done without acknowledging the role of culture. For example, Facebook itself offers its site in over 70 languages, Twitter offers its site in over 21 languages and LinkedIn offers its site in over 17 languages (Statista, 2016) which highlight the cultural diversity on SNS.

From a psychological perspective, the cultural variability which shapes one's self-construal (Triandis, 1989) would have an impact on how SNS members perceive and generate information online which also has an impact on further online behaviours. While there has been an immense body of past research that has been conducted to understand cultural influences on the self and behaviour (Bochner, 1994; Gardner, Gabriel, & Lee, 1999; Gudykunst et al., 1996; Hui & Triandis, 1986; Markus & Kitayama, 1991; Nisbett et al., 2001; Triandis, 1989), which helps to enhance our knowledge on interpersonal communication. There exist differences in behaviour and attitude of individuals even when they come from the same nation (Hofstede & Hofstede, 2001) so it could be speculated that when members from different cultures interact on SNS, user behaviour would also vary. Given the diversity of users on SNS it is therefore important to consider the causal role of culture on user behaviour if researchers want to understand online behaviour. Therefore, this research aims to conduct a cross-cultural research with natives from individualist and collectivist cultures (see Hofstede, 1980) to address the diversity on SNS.

## **1.2. Problem statement**

While past research has mainly focused on understanding human behaviour in an offline context, the study of online behaviour is still limited. Thus, the present research attempts to address this research gap in the empirical literature. Furthermore, the growing use of SNS among diverse populations from around the globe, calls for an evaluation of the causal role of culture in an online context. Additionally, the use of validated self-report scales in cross-cultural research, which have been developed mostly on the basis of western attitudes and behaviour is also questionable.

## **1.3. Significance of the study**

The goal of the present research was to investigate the cultural impact on communication behaviour and social identities among individuals from different cultural backgrounds in an online environment. Being able to study the differences in behaviour in different cultural context would allow drawing stronger inferences from the data collected. The distinction between cultural self was made by gauging one's cultural self-construal by measuring their level of individualism and

collectivism (Hofstede, 1980). Although it has been argued that the goals of being autonomous and belongingness are shared universally by all humans, as such members from both western and eastern cultures can have both kinds of self-construal i.e., individualism (independent) and collectivism (interdependent) self-construal (Brewer & Gardner, 1996; Cross, 1995; Trafimow, Triandis, & Goto, 1991; Triandis, McCusker, & Hui, 1990) which is displayed based on one's goals and current situation an individual is in, however as the general cultural dimensions are considered to be between levels of individualism and levels of collectivism, for this research purpose the western population is considered as individualist country (as their members generally would score higher on levels of individualism) and eastern population is considered as collectivist country (as their members would generally score higher in levels of collectivism).

It was important to select psychological variables that could help evaluate user behaviour online under several constructs in order to study online behaviour in-depth which constitutes a research gap that this study aims to address. Next to cultural orientation, this research focusses on a range of psychological variables and processes that have been identified as relevant in the online domain. Due to the level of anonymity that exists during online communication and the lack of presence of physical cues, the sustainability of such online communication depends on how users identify with the others in the group (online group identity), which helps them to develop an online trusting relationship (online trust), further motivating users to disclose information (online privacy concern) in spite of potential risks due to the benefits that they get from such interaction (perceived online social support and online self-enhancement). Hence perceived online social support, online trust, online privacy concern, online group identity and online self-enhancement are the main psychological outcome variables in the research.

This research aims to find differences in user activities and behaviour influenced by culture. It has been envisaged that such differences in behaviours can be achieved using online survey and priming experiment (Gardner, Gabriel, & Lee, 1999). The findings from this research will help not just social scientist but web developers, medical practitioners and even academics and researchers.

## 1.4. Outline of Methodology

Keeping cultural orientation (IV) constant the effect of user behaviour was evaluated on the various psychological variables (DV). An attempt was made to evaluate the differences in behaviour through the use of various psychological variables along with differences in user activities in an online environment, in particular on SNS like Facebook, use of survey techniques was a good choice. Surveys, however, lead mostly to correlational evidence and are not a good instrument to look at the causal role of cultural orientation on user behaviour. Experiments, on the other hand, were the obvious method of choice when it comes to causal processes. Therefore, a combination of methods was proposed which included an online survey which aimed to capture user network and user behaviour on Facebook. The experiment proposed were a set of priming tasks that was used on the participants and was used to show the causal role of culture on individuals. The below section will now outline the structure of the thesis.

## 1.5. Structure of the Thesis (*Overview*)

The thesis consists of eight chapters and is organized as follows.

- ***Chapter Two: Literature Review***

Literature and theoretical review of previous studies that have been conducted. This chapter has several sub-sections which reviews past studies under each sub-section.

*This sub-section reviews the theoretical basis of the research and consists of the below sub-sections:*

Culture; It evaluates differences in cultural behaviour in an online environment. It aims to provide an overview how us of SNS is used globally.

Culture and self-construal: This chapter aims to outline how cultural norms and behaviour helps in the development of self-construal. It highlights how different cultural dimensions.

Social Identity Theory: This chapter evaluates the importance of Social Identity Theory. It highlights the importance of social identity in an online context.

Self-categorization Theory: This chapter outlines the importance of SCT in not just an intergroup level but also at an intragroup level.

Social Identity Model of Deindividuation: This chapter outlines how the model of Social Identity Theory is applied in an online context.

Facebook Use: This chapter justifies why Facebook has been used as the platform for my study. It highlights how and why members around the globe use SNS like Facebook.

*The below sub-sections review past literatures on the various psychological variables that has been used as DV in the thesis.*

Online Group Identity: It outlines the importance of social identity on SNS across cultures.

Online Self Enhancement: It outlines how the use of SNS has an impact on the level of self-enhancement across cultures.

Perceived Online Social Support: It outlines how the use of SNS can help members with social support across cultures.

Online Trust: It highlights the importance of trust on SNS.

Online Privacy Concern: It highlights how individuals across cultures behave due to privacy concern in an online environment.

- ***Chapter Three: Methodology***

This chapter outlines the method used in the study and discusses the rationale for adopting such methods. It also discusses the various challenges that were faced during the cross-collection data collection process.

- ***Chapter Four: Study 1: Survey (Operationalization)***

Study 1 is used as a development study to refine study 2. It also consists of the results and its analysis.

- ***Chapter Five: Study 2: Survey (Facebook Responses)***

Study 2 was a refined version of Study 1 which consisted of an online survey. It also consists the results and analysis.



- ***Chapter Six: Study 3: Experiment (Operationalization)***

Study 3 consisted of the priming experiment and was also used as a study to refine the final version of the experiment. Results and analysis for this study are also discussed in this chapter.

- ***Chapter Seven: Study 4: Experiment (Priming & Facebook Responses)***

Study 4 was the refined and final version of the experimental study. This chapter also discusses the results and its findings.

- ***Chapter Eight: Discussion***

This chapter provides overview of findings in light of past research. It sheds light on the limitations of the study, outlines the contributions of the study, discusses the implications and future research along then finally provides a conclusion.

- ***References***

- ***Appendices***

# **Chapter Two**

## **Literature Review**

*This section will outline literature review on the various constructs used in the thesis and the chapter is divided into two sub-sections. Sub-section 2.1. is a literature review conducted that has helped to form a theoretical base for this thesis and Section 2.2. will discuss past studies conducted on the various psychological constructs that has been used as dependent variables (DVs) in the thesis. Section 2.3. will provide a brief summary of this chapter followed by Section 2.4. which consists of the Research aims and hypotheses and finally Section 2.5. will provide the Research Overview.*

### **2.1. Literature review (*Theoretical base*)**

This section will discuss past literature review to help justify the theoretical base for this thesis which will be used to evaluate differences in cross-cultural behaviour in an online environment.

#### **2.1.1. Culture**

Traditionally cross-cultural research has mainly focused on evaluating the role of culture by looking at it from an offline context. For example, while the use of internet for communication purpose is on the rise in present times, cross-cultural studies has been conducted way before this period (Hofstede, 1980; Markus & Kitayama, 1991). However, the increased use of the internet has fundamentally changed the way we communicate, from face-to-face communication to communicating over the internet. With the recent increase in the use of Social Network Sites (SNS) like Facebook, Twitter, My Space, YouTube, understanding cultural influence has become more of a focus of interest for social researchers which has its benefits (Ellison, 2007; Ji et al., 2010; Karl, Peluchette, & Schlaegel, 2010), revolutionizing the way we interact with each other, not just on an interpersonal level, but also when it comes to communicating with our social groups (Raacke & Bonds-Raacke, 2008) or even maintaining long distance relationships (Tosun, 2012). The use

of SNS has even been linked to addiction (Kuss & Griffiths, 2011; Kuss et al., 2013) also highlighting the problematic nature of such use affecting behaviour of individuals.

This research focuses on understanding the communication behaviour on social media, acknowledging the level of anonymity which helps members in the development of self-construal and social identity online. SNS, in particular Facebook ([www.facebook.com](http://www.facebook.com)) will be used as a platform to access research goals as it has access to a global sample of users from a wide range of demographic backgrounds and is the biggest internet based company (brandwatch, 2016).

SNS function on the basis of verifying the level of anonymity and when members are able to evaluate this, they are then able to connect to social groups. This shifts the focus from an individual self to a group self thereby helping to change the perception of self and others from an interpersonal level to a group level (see The Social Identity Model of Deindividuation - SIDE; Spears et al., 2002). To the extent that online social media allow for anonymity, where members are at least able to select and categorize their social groups, it will help members to communicate freely. Members on this platform are able to create an identity for themselves (Krämer & Winter, 2008) and through the profiles they create they are able to create a public image that they want others to perceive for themselves (Lampe, Ellison, & Steinfield, 2007) which help members create editable an online identity for themselves where they are able to express themselves without any restrictions. However, such communication strategies will have cultural influence which will have an impact on the behaviour of its members further stressing that the casual role of culture cannot be ignored while evaluating the behaviour of members in an online environment. The below sections will discuss the role of culture in the development of one's self-construal "Culture and Self-Construal", followed by a discussion on the theoretical concept of Social Identity Theory, Social Categorization Theory and Social Identity Model of Deindividuation (SIDE) which help shed light the theoretical concepts which helped to form the base for this research. Further literature review will be conducted on the use of SNS in general. Finally, the last section in this chapter will discuss the various DVs that has been used in this thesis in light of past research.

### **2.1.2. Culture and Self-construal**

The “self” is the mediating factor between culture and individual behaviour (Triandis, 1989). The cultural norms and values that people follow with time becomes part of one’s behaviour which help to shape and develop one’s self-construal. The self-construal of individual is a representation of their cultural self and highlights the individual’s inner ability, characteristic, attribute or goal which is influenced by the culture that individual might come from. For example, the normative imperative of an individual from an individualist country possesses an independent self-construal and thus encourage independence from others and being able to stand out and be able to express their inner traits to others. In contrast, individuals coming from collectivist countries has interdependent self-construal and where the self is connected to others (Markus & Kitayama, 1991; Markus et al., 1998; Triandis, 1989). Collectivist members do have the concept of their inner self but such inner attributes do not guide their decisions or behaviours in the same way as individuals from individualist countries. Instead members from collectivist cultures emphasizes the maintenance of group harmony which helps their construal becomes more meaningful and complete. Members of the group are considered as the part of the self and the self is considered as part of others. Their behaviours and actions are governed by what others perceive about them and what they are required to do in order to maintain harmonious relationships. Collective existence with their group members is a part of their self. The main differences between the two-types of self-construal is how the self in relative to others in the social environment. While it is important not to generalise such cultural dimensions to the whole population in Eastern and Western countries but it will be fair to say that in general people in Western countries possess independent concept of the self and a majority of the people in the Eastern countries possess an interdependent concept of the self. Individuals perceive themselves in different ways which allows them to identify themselves separately from others by taking in cues from the environment around them. The norms and regulations encompasses the societal system and gets practiced by its members through the various societal institutions and the societal groups they follow. These norms, ideals, values and practices helps to shape the psychological understanding of themselves and the environment around them. The development of the one’ self-construal is a process and is dictated by knowledge based pathways called self-ways (Markus et al., 1997) which results in the formation of the self.

The various self-ways can differ based on one's cultural orientation as it has been developed based on their cultural ideals, norms and acceptable behaviours affecting development of the self. The cultural mandates that with time gets internalized and shape the psychological understanding and evaluation of the world around form contrasting understanding of self-worth in different cultures. Individualist cultures derive self-worth from being able to express themselves and validate their internal attributes openly unlike members from collectivist cultures who seem to derive self-worth from being able to maintain a harmonious relationship with their social group, from being able to restrain themselves by being able to have the ability to adjust with the social context. Individualist members pursue their own goals, happiness and personal fulfilment whereas collectivist members believe in maintaining the expectation of others in their social groups, maintaining relationship and group rapport (Markus & Kitayama, 1991).

Therefore, any change in the process of development of the self or any changes in the self-construal process will have impact on our perception of the world around and will also affect one's behaviour. In a study conducted by (Gardner, Gabriel, & Lee, 1999), the causal role of culture they examined the casual role of self-construal by priming independent or interdependent self-construal within a culture and found that priming self-construal affected participants more when their prime was inconsistent than when their prime was consistent with their self-construal having an impact on their responses. The way we communicate, whether we use high context communication or low context communication, for example, is also seen to be predicted by our self-construal and values (Gudykunst et al., 1996). Our self-construal in turn helps to form not just our personal identity but also our social identity. While such studies have been conducted a while ago, there is not enough evidence to confirm that such changes have also been evidenced in the online domain. While acknowledging the difference in behaviour due to cultural different selves (Hannover & Kuhnén, 2004; Choi & Choi, 2002) and values (Fiske et al., 1998) has been called for, through this research it is argued that such cultural differences will also be evident in an online environment.

### **2.1.3. Social Identity Theory**

Social Identity theory was developed to understand intergroup processes and relationships (Tajfel et al., 1971). Through a series of minimal group experiments, Tajfel and his colleagues

found that members favour their in-group over out-group and there exists an intergroup categorization when members of different groups come together. Competition between groups further activates group membership further strengthening the bond with their in-groups, where members strive to win against the out-group, which not only identifies their place within their group but also helps to strengthen their group identity. While this research was conducted in an offline context, it is argued that such intergroup behaviour is even more relevant in an online context (Douglas & McGarty, 2001; Amichai-Hamburger, 2005) as social network extends from the offline community to the online community (Ellison, Steinfield & Lampe, 2007). SNSs has given its members the opportunity to become part of online groups, which fulfils their need to belong to particular groups, which is a powerful motivation (Baumeister & Leary, 1995). The motivation to become part of this wider community helps its members to form a common identity with their group members, which generally leads to the formation of bond based identity over time (Ren, Kraut & Kiesler, 2007). The absence of physical cues and the level of anonymity together makes it even more important for members of groups to highlight their loyalty towards their group as members strive to maintain their group identities ((Lea & Spears, 1991; see Klein, Spears, & Reicher, 2007; Zhang, Jiang & Carroll, 2010).

Such behaviour is further explained in the social identity theory (SIT: Tajfel & Turner, 1979; Tajfel, 1978), where it is argued that individuals interact in two ways: interpersonal and intergroup communication. In interpersonal communication individuals are not aware of the social categories and communicate in relation to the self. It is argued that such behaviour is relevant in an online environment, where members communicate on SNSs and showcase their socially attractive personal identity (Zhao, Grasmuck & Martin, 2008; Pempek, Yermolayeva & Calvert, 2009). In contrast, during an intergroup communication there is a shift from the personal self to the group self and members think and act in the benefit of the group, whereby members categorize themselves in terms of the similarities with the in-group members and in terms of the differences with the members of the out-group. Categorization also shift focus from thinking about the self-concept in terms of one's own personal values, attitudes and emotions but instead the self-image of the members is then defined by their group membership. They further argue that by demonstrating a competitive group behaviour make members feel secure and help them feel positive about themselves. If this was to be seen in the context of a SNS environment, then it can be argued that such group categorization certainly exists. Members interact with others with an

aim that they would be able to have a positive experience. Therefore, such existence of group bias will exist.

Furthermore, maintaining a positive social identity is important for members especially when they feel that there are in a group which has a low status quo as compared with the outer group (Tajfel & Turner, 1979; Turner & Brown, 1978) by either leaving the group (physically or psychologically), offer flattering to the in-group on positive group dimensions or even resort to social change in order to help change the status of the group. Such behaviour is also relevant in an online context as members engage in online communication in order to achieve a positive social identity for themselves. While the main goal of being online is maintaining a positive identity for the members, this could be argued to be more easily achievable in an online environment than an offline environment (Barker, 2009). The level of anonymity on SNS allows its members to act in ways that boosts group identity (Zhao, Grasmuck & Martin, 2008) however they are also free to act in ways if they believe that the group norms or values are not in accordance with their own norms or values by either becoming passive members (where they refrain from taking part in group activities) or simply join other groups. For example, Reicher & Levine (1994) found that when members identify with a powerful outgroup, participants seemed to lower those aspects of their group identity which are inconsistent with the outgroup norms for the fear of punishment. Additionally, SNS allows its members to have the advantage of being able to create a virtual, editable social identity where they can highlight their positive attributes to others which might not always be possible during offline communication.

#### **2.1.4. Self-categorization Theory**

The cognitive element of The Social Identity Theory (SIT: Tajfel & Turner, 1979; Tajfel, 1978) which emphasise group interaction was further elaborated refined and moved beyond understanding the intergroup processes to intragroup processes which was known as Social Categorization Theory (SCT) (see Turner et al., 1987). Although SCT stemmed out from the same assumptions as the SIT and while when we look at the social identity theory in whole, one would look at both the SIT and SCT also acknowledging the differences in the emphasis of both theories. While categorization was a fundamental component in the SIT, Turner and his colleagues extended

the concept of categorization and argued that the self-categorization theory not only worked at the intergroup level but also worked at the intragroup level. They proposed that SCT was made up of three levels that were important to one's self-construal: the subordinate category of the self (or human identity), the intermediate level of the self which is defined in terms of one's group membership (or social identity) and at a subordinate level one's personal identity which is based on intrapersonal comparisons with others and one level becomes salient the other levels becomes less salient. One of the fundamental component of SCT is the process of depersonalization where the member can relate and identifies with the social attributes of the group and in a way dictates the attitudes, emotions and behaviours of the group members further resulting in group polarization, i.e., when members of a group conform to the group norms (Mackie, 1986; Turner, Wetherell, & Hogg, 1989) also found in an online environment (Spears, Lea, & Lee, 1990) which is important for one's personal identity (Zhang, Jiang & Carroll, 2010). However, personal intention to join a particular group, and form one's social identity is seen to influence online interaction (Cheung & Lee, 2010) and can be argued to promote categorization. Unlike traditional SIT, which suggests that group cohesiveness is a result of interpersonal attractiveness, SCT argues that it is a result of depersonalization (Hogg & Hardie, 1991). Such level of depersonalization is found to exist in an online environment where members aim to maintain a positive social identity for themselves (Pempek, Yermolayeva & Calvert, 2009; Zhao, Grasmuck & Martin, 2008). SNSs gives the opportunity to its members to find members with similar attributes, which is helped when they become members of popular groups, helps them to enhance their social attractiveness to others thereby contributing to enhancing their personal popularity. Members affiliate themselves to popular group membership or act in ways which helps to boost their group membership that benefit's the individual's psychological wellbeing, increase in social support, connectivity and self-esteem (Ellison, Steinfield & Lampe, 2007) further supporting the concept of SCT.

SCT also help to explain group influence and power within a group. When a prototypical member is able to influence others through his or her prototypical behaviour, there is an allocation of power and status given to the member as they see the prototype as a leader through the self-categorization at an intrapersonal level within a group (Hogg, 2001). Therefore, social categorization is crucial in identification of the social self, which helps members to relate with the group and thereby help to promote group influence (McNamara & Parsons, 2016) and group behaviour (Turner, 2005).



While it had been argued that anonymity, group cohesiveness lead to deindividuation of the self where members in a crowd loss self-awareness and behave in anti-social manner (Zimbardo, 1969). In contrast, (Reicher, Spears, & Postmes, 1995) argued that anonymity in a group instead of resulting in the loss of self-awareness results in the identification of the self with the group identity. They argue that the self consists of several levels (Turner et al., 1987) and when members are in a group, their social identity becomes salient which helps them to relate to the group membership. Interestingly, such online group members when used purposively and actively has been seen to even effect offline civic and political views (Park, Kee & Valunzuela, 2009). The model of SIT has been further applied in an online context and will be discussed in the next section.

### **2.1.5. Social Identity Model of Deindividuation (SIDE)**

Unlike SIT (Reicher, Spears, & Postmes, 1995; Tajfel, 1978) and SCT (Turner et al., 1987; Turner, Wetherell, & Hogg, 1989), which emphasizes the collective self, the Social Identity Model of Deindividuation emphasizes the self. The SIT posits that members in a group perceive their identity in terms of the identity with the group which is their social identity and group is meaningful only when compared with other groups. Members attain a positive social identity through positive group membership. Rewards will be more for in-group members (explained by the minimal group paradigm) and in-group bias. This theory instead defines two selves, the personal self which defines the person in terms of their personal attributes and social identity which relates to the group they belong. In SIT, there is a shift from the personal self to the social self. While SIT, emphasizes depersonalization where members in the group loose awareness of the self, SIDE on the contrary emphasizes on depersonalization of the self, where the self is accentuated as members are able to identify with the group. This concept of SIDE is closely related to SCT where there is a process of depersonalization that helps members to identify themselves with others in the group. It is argued that the online environment bear resembles to a crowd behaviour where members act and behave in ways that is consistent to group membership. SIDE has been able to extend the concept of SIT and SCT and extended this theory in computer-mediated communication (CMC). Initially the concept of deindividuation was used to understand flaming in CMC and researchers argued that anonymity in CMC lead to deindividuation and loss of self-awareness which resulted in flaming and group arguments (Kiesler, Siegel, & McGuire, 1984; Siegel et al.,

1986). This has been contested in accordance with self-categorization theory, (Lea & Spears, 1991; Spears, Lea, & Lee, 1990) and is argued that anonymity leads to group conformity as the social identity of the in-group members are accentuated, thereby making them behave in line with group norms. They also argue that when members of the group act in accordance with the group norms, it helps the identity of the group to become salient when compared with other groups (Turner et al., 1987). They further argue that when being anonymous or isolated, it can enhance group identity and group conformity as they suggest that members of the group become more cognitively attracted to the group as they feel that they can relate to group members more openly (Spears & Lea, 1994). This is however in contrast to the traditional studies on group formation which is dependent upon interaction with others.

In line with the SIT (Tajfel et al., 1971) which looked at the interaction between groups and suggested that the groups were based on random criteria and did not have any history or personal interest and intragroup interaction was not a salient feature but intergroup interaction was. This is argued to remove any individual characteristics and because members are not aware of the other in-group and out-group members, they treat everyone based on their group membership. This behaviour can be seen in a CMC, where individual anonymity treat members based on their social/group identity and not as individuals.

To summarize, the social identity model of deindividuation (SIDE) challenges social identity theory (SIT) and social categorization theory (SIT) as it argues that deindividuation accentuates social identity such that members in a group act based on their social identity and not their personal identity which makes them conform to group norms. Building on the concept of SIDE, it is argued that people make strategic use of these process (Klein, Spears, & Reicher, 2007) where the visibility of the social self, influences how others perceive members such that it helps to affirm, confirm and strengthen group memberships and also persuades group to adapt to specific group behaviour. It is further argued that that such strategic behaviour influences group action which could be found in intergroup as well as intragroup contexts. Unlike the concept of SCT, SIDE has been able to suggest the importance of self-presentation in a group by complying with group members, thereby maximizing the potential of being rewarded by group members (Baumeister, 1982; Leary & Kowalski, 1990). Similar to how members in a crowd lack individual identity but instead identifies with the in-group leads to deindividuation, thereby helping members to establish

their social identity. If members on SNS are considered as members in a crowd, there too exists a level of anonymity which leads to deindividuation, thereby helping members in the group on SNSs to establish their identity in terms of group membership and also reinforce their intergroup identity. Such behaviour is supportive of the SIDE, which is an extension of the traditional SIT and SCT, is the theoretical base for this research.

In support of the past theories SIT, SCT and in particular SIDE, an attempt is made to use the theoretical concepts in understanding online behaviour. While the use of SNS has been heavily researched, there still exists a gap in the past research. Furthermore, while the concept of SIT and SCT has been extended in the theory of SIDE, which helps to apply the theoretical concepts in an online context, there exists a lack in the body of online research, which help to support these concepts. While the online environment help to construct an online identity for its members, the communication strategies advocated by SIDE still needs to be evaluated through empirical research. In order to fully understand intergroup and intragroup behaviour researchers would need to focus on using SNSs for conducting their empirical research if they want to understand online behaviour. Using SNSs would help researchers to get access to intercultural population sample but at the same time get access to real time data which is not always possible in other researches. It is for this reason this current research will use Facebook as the communication tool which members from all cultures uses (this will be discussed in Section 2.2. in detail in the below section). Furthermore, as discussed in Section 2.1.1. and 2.1.2. acknowledging cultural differences is also crucial if researchers want to fully understand online behaviour. The below section will discuss the role of Facebook as an effective communication tool.

## **2.2. Literature Review (*Psychological variables used in the study*)**

*As Facebook is used as the communication tool to study differences in online behaviour, the below sub-section will discuss the Intercultural importance of Social Media in general. This will then follow with sections that will discuss the role of culture on the various psychological variables that has been used as DVs in the thesis.*

### **2.2.1. Intercultural Importance of Social Media**

While the preceding paragraphs has been an attempt to provide the psychological perspective on culture and the role of social identity in an offline context. This is important to highlight that online behaviour can substantially be studied on social media, where Facebook being the most prominent representative at present and is being used by members globally which has a diverse population of its members (brandwatch, 2016; Statista, 2016). As of the second quarter of 2016 Facebook has over 1 billion active users worldwide and over 1.57 mobile active users (active users represent members who had used Facebook in the last thirty days) (Statista, 2016). While 38.6 percent of the online population worldwide use Facebook, around 23.1 percent of online population in Asia Pacific used Facebook at least once a month (Statista, 2016). Since its evolution in 2004 Facebook has managed to create an environment which has allows members to interact without any restrictions.

Understanding behaviour using online social media is unique in its own rights as such online behaviour might not be seen or experienced offline. Although there are other ways of observing interactive behaviours like focus group or experimental methods such methods are more cumbersome. SNS like Facebook provides an environment which allows social researchers to study human behaviour real time which had not been possible before, e.g., intragroup and inter group behaviour, how members make friends and respond to others, along with many others. As Facebook is being used across members from all cultures, studying human behaviour on Facebook calls for ecological validity which might have not always been possible before. Additionally, Facebook due to its immense popularity in its own right allows ground to investigate how members on this online platform communicates, forms and maintains bonds. For many people use of SNS has become part of their lives and it has led to the integration of our offline and online world which has also seemed to provide psychological benefits (Ellison et al., 2007; Steinfield, Ellison, & Lampe, 2008). One of the most common reason why people use Facebook is the desire to and maintain relationship with their social capital (Ellison et al., 2007; Joinson, 2008; Lampe, Ellison, & Steinfield, 2006; Sheldon, 2008). Facebook also allows members to distinguish between strong and weak ties (Granovetter, 1973). It has also been seen that while members communicate with their strong ties by posting comments or messages, they however seem to passively communicate with their weak ties like just browsing around or just viewing the news updates (Burke et al., 2010).

The effects of the use of SNS is quite complex. While for some direct interaction on Facebook seemed to reduce feelings of loneliness and increased feeling of social capital, others who passively used Facebook where they just view contents of profile of their friends, like photos and status updates seemed to report higher level of loneliness and reduced social capital (Burke et al., 2010). Further research also suggests that there is a higher sense of pleasure for members who use Facebook to extract information about others rather than just passively browse Facebook (Wise, Alhabash, & Park, 2010). Such findings do seem to suggest that the use of SNS like Facebook has complex psychological effects on its members which is moderated by different types of user engagement. While Facebook has been used to eliminate boredom (Lampe et al., 2008) however study conducted by (Pempek, Yermolayeva, & Calvert, 2009) suggest that irrespective of how busy students were, they used Facebook for 30 minutes as part of their daily routine, suggesting that boredom might not be the only factor for using Facebook. Motivating factors has also been attributed to Facebook features, such as “birthday reminders”, which allow members to keep in touch with their social sphere (Viswanath et al., 2009). In their study, they found that Facebook features like birthday reminders helped 54 percent of users who interact infrequently were motivated to use Facebook due to this feature further suggesting that motivation for using Facebook is due to various reasons.

Impression management is crucial for its members as it allows others to perceive them online. While various studies has attempted to understand whether the profile members present for themselves is accurate or fabricated, have found that members fairly provide an accurate information on their profile which reflected their personality (Back et al., 2010) suggesting that members are not portraying an idealized self but an actual self on Facebook, which might be one of the reason for its popularity as it has also been seen to be reflected of their offline characteristics too (Weisbuch, Ivcevic, & Ambady, 2009). One of the reason why members portray a fairly accurate image of themselves on their profile could be because as their contacts are mostly an extension of their pre-existing offline relations (Ellison et al., 2006; Lampe et al., 2006), members are aware as well as conscious that if they provide a fabricated self-presentation of their profile, their offline members would identity it which will have an adverse effect on their social relationship.

Cultural influence has also been seen to be affecting self-presentation on SNS. One study showed that students in the USA would be more inclined to post inappropriate or problematic pictures or information on their profile than German students (Karl, Peluchette, & Schlagel, 2010) which supports the differences in cultural dimensions as suggested by (Hofstede, Hofstede, & Minkov, 1991).

Identity preservation is also crucial in an online environment as it has been seen that members often judge users based on the comments they receive from others (Walther et al., 2009) and probably that might explain why users might judge members more attractive when comments are left from attractive users rather than attractive users (Walther et al., 2008). This further explains why members on SNS prefer to post attractive photos and comments about themselves as it has been seen both males and females prefer to be friends with members who have attractive photos (Wang et al., 2010). Maintaining an appropriate number of Facebook contacts is also relevant to members' profile identity as it has been seen that users are rated as attractive till about 300 friends on their profile and then it declines (Tong et al., 2008) which might explain that just by having a high number of friends might not be enough to influence other's perception.

While SNS like Facebook is used by members from all cultures and social spheres, diversity in social spheres has also been suggested to result in online tension (Binder, Howes, & Sutcliffe, 2009). On the contrary others (Lampinen, Tamminen, & Oulasvirta, 2009) has also suggested that users seem to mitigate such online tension by utilizing the privacy controls which allows them to limit access to certain friends, i.e., by communicating privately rather than publicly online or by self-censorship, where they simply avoid posting pictures or information that might lead to online tension. This in turn helps them to protect their social identity.

Use of Facebook has been seen to be having risks associated with it (Debatin et al., 2009) and while members are aware of their privacy concern, they however seemed to trust Facebook and its members more and hence agree to provide information when compared with other SNS like MySpace (Dwyer, Hiltz, & Passerini, 2007; Fogel & Nehmad, 2009) which was also supported by (Gross & Acquisti, 2005) where their study showed that in spite of being aware of the risks attached members were still willing to disclose a large amount of personal data and only a small percentage of members changed their privacy settings on Facebook.

Overall the information provided in the above paragraphs suggest important aspect of SNS as a communication tool which has become part of our daily lives. While there is a wide variety of research that has been conducted to understand the use of Facebook, there has been minimal studies which has looked at the cross-cultural impact. This thesis hopes to address this gap in literature to evaluate how culture can influence behaviour in an online environment. Some of the important elements of communication on SNS involve members' cultural orientation, i.e., acknowledging cultural diversity which has an effect on our psychological variables like the level of trust, level of social support one receives concern for privacy, group identification and the level of self-enhancement one gets while interacting. The below sections will review studies that has conducted under each variable.

### **2.2.2. Online Group Identity**

Members on SNS categorize themselves in terms of their group identity and perceives themselves in relation to their group identity. This is in accordance with the social categorization theory (Turner et al., 1987) which sheds its light on the influence of group membership. When members identify with their group members, they no longer see their identity in terms of their personal self but as a social self and their actions and behaviours are in line with their group norms. This is certainly something which is quite often seen on SNS as members are loyal and supportive to their in-group then out-groups. Such behaviour has also been seen to promote in-group bias (Tajfel et al., 1971). As Facebook is an environment which is being used by members from diverse cultural background, such bias behaviours could be speculated to be seen more among the members from collectivist background then from members from individualist backgrounds which can be explained by the cultural dimensions (Hofstede, Hofstede, & Minkov, 1991) when members from collectivist countries as they try to maintain their group harmony which is one of the prime goal of collectivists (Markus & Kitayama, 1991).

While the SIT explains intergroup process it however suggests that when members in a crowd interact there is a loss of self-awareness and accountability (Tajfel & Turner, 1979; Tajfel, 1978). However, (Turner et al., 1987) further extended this theory and explained that when members in a group interact there is exists intergroup as well as intragroup process and this is certainly seen in an online environment. However, as interaction on SNS lacks presence of physical, there exists a

certain level of anonymity in such environment. Interacting on SNS not only supported by the SIT as members are able to identify their social identity online, but due to the level of anonymity, the theory of social identity model of deindividuation effects (SIDE) comes to play, which is also an extension of SIT and SCT (Lea & Spears, 1991; Reicher, Spears, & Postmes, 1995) and unlike traditional SIT model, SIDE argues that anonymity accentuates social identity through depersonalization unlike SIT which claims that anonymity leads to loss of self-awareness and accountability. However, on the contrary SIDE is an extension of SCT which agrees that when members in a group interact depersonalization of the self takes places which helps members to identify with other in the group further leading to group behaviour. As members are unable to identify their individual differences of in-group members, group identity accentuates. Although members on SNS like Facebook are identifiable as they make themselves visible with the profile information and pictures, the social identity of the group could be compromised. It is argued that as members on SNS select their friends based on their preferences, such individual differences would be fairly small. If, however when members would showcase their individual selves, it can however lead to online tension (Binder, Howes, & Sutcliffe, 2009) as diversity in social spheres could lead to online tension.

When members of other groups are identifiable, then it might also lead to social tension as members can communicate directly to a particular member of the group and not the group as a whole. If such direct communication is made at the group level, then it can also lead to intergroup tension. For example, if a member on Facebook posts inappropriate information or gossip about a member of another group, then as they are identifiable members, the members from the target group can unite to respond back to the member. If, however the target group has a higher status quo then it can dominate the communication and result in tension. Such intergroup unity might be seen more among members from collectivist cultures as they believe in maintaining harmony with the in-group to maintain their social status (Markus & Kitayama, 1991), however on the other hand if members from the target group do not agree with the group action or behaviour then it can also lead to members becoming passive. On the contrary members from individualist cultures unlike members from collectivist countries might be free to move freely between groups. It can thus be speculated that such collective behaviour might be more explicit among members from collectivist cultures than individualist cultures. Alternatively, identifiability of outer group members can also enhance social influence as it develops intergroup competition where members from both groups



strive to display their social status as it will undermine self-categorization with the group however it will enhance intrapersonal differences within the group. If this is to be referred in terms of SNS then when members interact with each other where there exists exchange of feedback from each other, then such communication can also undermine group unity as it can lead to online tension within group members. This is certainly in line with SIDE and SCT.

As there always exists a level of anonymity on SNS, members can develop their social identity which is consistent with the group norms (Lea & Spears, 1991). While in their study members showed behaviours that was consistent with their group norms, when they are anonymous rather than when they are identified. (Spears, Lea, & Lee, 1990) also conducted a study which confirms that anonymity lead to deindividuation which confirmed group polarization, further confirming social influence in intragroup processes. Both these studies are in line with the SIDE theory and also SCT. While these studies on anonymity support the cognitive consequences of SIDE, other studies have also looked how members use different strategic processes to influence social influence. For example, (Reicher & Levine, 1994) even found that when members identify with a powerful outgroup, participants seemed to lower those aspects of their group identity which are inconsistent with the outgroup norms and can lead to punishment. This finding is crucial when trying to understand behaviour of individuals in an online environment. While it is important that members maintain their social identity, they also need to understand their group status queue in comparison to others as this has an influence on their behaviour. While members on SNS like Facebook are identifiable, when members are exposed to other groups with powerful status then based on previous findings, can undermine their in-group stereotype behaviour. For example, on occasion when members might come across a group that might be more powerful when they fear of punishment (e.g., work group or family) then members will generally undermine their usual in-group behaviour and instead will behave in a manner that might be acceptable to the norms of the outgroup. Probably this is why members on Facebook don't usually disclose work related information or refrain from discussing information that might have an adverse impact on their offline relationship. Although it is speculated that such behaviour could also be influenced by cultural orientation of the members, such that members from collectivist cultures would usually portray such cautious behaviour higher than individualists when it comes to maintaining their offline relationships like their family members. On the contrary when members are identifiable as per SIDE it accentuates deindividuation which can result in members behaving in more

stereotypical manner (Douglas & McGarty, 2001). For example, as members on Facebook are identifiable, they will be expected to act in accordance with their group norms and use communication strategies that are in accordance with their group norms. This sheds light to the importance of self-presentation of the members of SNS which is demonstrated by contesting with the out-group but it is also important to point out that with this identifiability, there comes a heightened feeling of accountability to the in-group members. Identifiability of members can help low status members to voice their opinions in regards to the outgroup as it will allow them to become visible, thereby giving them the opportunity to raise their status within the group which further helps them to self-enhance (Noel, Wann, & Branscombe, 1995). Such findings demonstrate that SNS like Facebook acts as a platform which can also equip members with the opportunity where they can display their identity amongst others. This can prove beneficial to members who might not always get the opportunity to express themselves within their group or even during offline communication, however due to the freedom one has during CMC, such members can express and display their loyalty towards their in-group, thereby helping them to self-enhance. Additionally, it can be argued that identifiability on SNS like Facebook can also have its drawbacks as members might feel obliged to follow the norms of the group even though they might not always agree to it and this can also lead decrease in self-enhancement. While such behaviour might be explicit more amongst members from collectivists, it might not necessarily be something that individualists might face (Markus & Kitayama, 1991) as due to their cultural differences, members from individualist cultures might feel free to express their disagreement with the group norms if they do not agree as they believe in being autonomous and independent. Additionally, such expressive behavior on the other hand can also help them to accentuate their personal identity which is in line with the cultural dimensions by (Hofstede, Hofstede, & Minkov, 1991). Furthermore, as seen from past studies that identifiability also enhances feeling of accountability (Douglas & McGarty, 2001), it is however argued that such accountability which can be a result of identifiability will be more enhanced amongst members from collectivist cultures than members from individualist cultures.

Therefore, overall it is argued that the increase in the use of CMC, i.e., SNSs for communication purposes, intergroup and intragroup relations and anonymity in the medium play a crucial role in understanding how members behave in such virtual environment due to the lack of physical presence of its members which is one of the most crucial reason why it is even more important to

understand the role of identity in a group and how it has an impact on our behaviour. Below are some of the hypothesis that this research aims to address:

**H1: Intensity of Facebook use will mediate the relationship between culture and group identity such that increase in Facebook activity will increase the level of group identity.**

While Facebook allows its members to engage in different types of activities and the freedom to use the medium whenever and wherever possible, such factors (type of activities and time spent) will allow its members to identify other members based on their interests. Furthermore, spending more time on Facebook will provide more opportunity to its members to identify with others.

**H2: Group identification would be stronger among members from collectivist cultures than members from individualist cultures.**

Identification with others on SNS is a result of common interest and goals, which is most likely to be achieved when members either know the other member from past offline relationship, or have been able to share personal information between each other as it helps to identify with the other member more than when they establish a new relationship online. The more information members have about others in the group, the higher would be their identification with the group members as they will be able to relate to identity of the group which helps in the development of in-group trust among its members as has been supported by SCT. However, such trusting relationship could be anticipated to be higher among members who might already have a shared offline relationship, which could be speculated to be higher among members from collectivist countries than members from individualist countries as they believe in maintaining their social sphere more than members from individualist countries.

In summary, it is seen that group identity plays an important role on SNS. Due to the level of anonymity that exists on SNS, identification with other group members helps members on SNS to develop a social identity for themselves. While anonymity on SNS helps to develop one's social identity, categorization of members' helps to maintain inter and intragroup relationship by using different cognitive and strategic processes. The below section will now discuss online self-enhancement.

### **2.2.3. Online Self-enhancement**

People strive to hear positive factors about themselves and like to think about themselves as better than others. This desire or motive to enhance one's self worth is called self-enhancement which is an evolutionary concept that allows personal and social advantages to people who possess such traits (Sedikides, Skowronski, & Gaertner, 2004). This is not only relevant in our daily interactions, i.e., when we interact with each other when offline but is an expression that members from all cultures practice on SNS too. One of the main motive of using SNS is the advantage of being able to have a sense of control over our self-image where members can persuade others to perceive them how they want themselves to be perceived by others. Culture influences exists from an early age (Wang, 2004) which makes people behave in cultural specific ways. For example, people from individualist countries generally are high on individualism where members are independent, open and free to express themselves and place themselves higher than the society and values their personal achievement more and people from collectivist countries are generally high on levels of collectivism where members believe in interpersonal relationships and are more interdependent and place others higher than themselves (Hofstede, Hofstede, & Minkov, 1997; Kitayama, Markus, & Kurokawa, 2000; Markus & Kitayama, 1991; Singelis, 1994; Triandis et al., 1988).

The universality of self enhancement is however a debatable topic by many researchers. While one body of researchers claim that self-enhancement is only found among Westerners and not amongst people from East Asia (Heine et al., 1999). They argue that the need for positive self-regard is not a universal concept but is more for people from Western countries whereas East Asians like the Japanese are more self-critical. Such evaluations of East Asians have been supported in various studies which suggests that East Asian are self-critical of themselves and thus engage in self-criticism and not self enhancement (Heine & Lehman, 1999; Heine & Hamamura, 2007; Kitayama et al., 1997).

On the contrary other studies have argued that self-enhancement is a universal concept (Sedikides, Gaertner, & Toguchi, 2003; Sedikides, Gaertner, & Vevea, 2005) where just like Westerners, people from East Asia also self-enhance but their motivations are sensitive to cultural context and are more tactical in nature, where Easterners self-enhance on collectivist attributes and Westerners self-enhance on individualist attributes (Sedikides et al., 2005; Sedikides, Gaertner, &

Vevea, 2007). This was also supported in a study conducted by (Gaertner, Sedikides, & Chang, 2008) where they found that Taiwanese participants regarded themselves superior to their peers on collectivist attributes than individualist attributes suggesting that self-enhancement is a universal concept and is expressed more tactically among people in some cultures. However, it has been further argued by (Kurman, 2001) that self enhancement is moderated by modesty and not collectivist traits. In another study (Kurman, 2003) supports the universality of self enhancement however it is argued that the differences in self enhancement is due to the differences in cultural restrictions and modesty that is responsible for low self enhancement in collectivist cultures. Members of collectivist and individualist cultures endorse values that are followed by their social group and study suggests that high perceived cultural core values are more important than values of high actual self-importance (Wan et al., 2007). Such theoretical concept if applied on SNS would certainly help in understanding cultural differences on SNS as researchers appreciate the cultural differences in the motivations of user engagement (Ross et al., 2005).

SNS gives people opportunity for instant feedback which allows members to self-enhance as they actively seek positive feedback. Once members start receiving positive feedback their enthusiasm to get more positive feedback increases than when they receive negative feedback (Dunning, 1995). This could be suggested to strengthen the motive people have when they use SNS as members not only increase their popularity but are also able to express a sense of achievement. This also allows members to influence how they want others to perceive themselves. However, it could be argued that such self-enhancement tactics where there is an open social exchange amongst a diverse social group can sometimes lead to social tension (Binder, Howes, & Sutcliffe, 2009).

In order to prevent such social tension on SNS members from different cultures behave in different ways to preserve their relationships online. This also influences the extent to which members create their profile and share information. SNS gives members the opportunity to create an identity for themselves which gives them the advantage to influence the perception others should be having for them which helps them to enhance their self-worth thereby contributing to self enhancement. Members are able to create an online world which gives them the advantage to have control on their self-worth. When members experience low mood, they can enhance their self-worth by downward comparisons of others which helps them to manage their mood and helps

in self enhancement too (Johnson & Knobloch-Westerwick, 2014). Study conducted by (Valkenburg, Peter, & Schouten, 2006; Zywicki & Danowski, 2008) suggests that positive feedback on SNS helped to enhance self-esteem and wellbeing of adolescent whereas negative feedback negatively affected their self-esteem and wellbeing.

This need for positive self enhancement was also seen in different cultures as when asked to rate themselves in comparisons to others people usually rate themselves higher than others on positive traits (Brown, 1986) which again suggests that people from all cultures strive for self enhancement however can depend on interpersonal relationships (Takata, 2003). He argues that Japanese people who are from collectivist culture tend to be self-critical when they are under competition free situation and when they share a personal relationship with others. However even Japanese people displays self-enhancement traits, similar to North Americans (individualist countries) when they come under a competitive situation and are with someone with whom they don't share any personal relationship. This is certainly an important point to address in this study as people on a SNS come from both individualist and collectivist cultures and share the same platform to communicate with each other. However while it has been argued that the online social contacts are an extension of one's offline social contacts (Acquisti & Gross, 2006; Ellison, Steinfield, & Lampe, 2007; Lampe, Ellison, & Steinfield, 2006; Subrahmanyam & Greenfield, 2008) such ratings could vary as members might be influenced by their personal relationships they might share with some of their group members. Even from an early age the need for positive implicit self-enhancement gets instilled in us universally (Yamaguchi et al., 2007) and people self-enhance based on norms and attributes that is supported by their culture (Brown & Kobayashi, 2002). This is certainly an important requirement in an online environment of SNS where maintaining a harmonious relationship is important to maintain ties with the social contacts and at the same time maintain one's popularity among the group members.

Furthermore, it has also been argued that self-evaluation of the self is moderated by self-esteem (Brown & Mankowski, 1993). In their study, there were two groups who had to rate themselves and both group of respondents viewed themselves as more favourably when they were in a positive mood and members with low self-esteem members lowered their self-evaluation scores when they were in a negative mood. It was further suggested that such self-depreciation tendency where people perceive themselves negatively can lead to psychological impact like distress (Kurman,

2003). Kurman further suggests that self-enhancement helps to develop self-esteem which also helps in the wellbeing of individuals in both cultures. In a study by (Zywica & Danowski, 2008) it was also found that people with high self-esteem supported their self-enhancement hypothesis where they were popular among both their offline and Facebook group. Interestingly people who were more introvert and were less popular offline, showed low self-esteem and supported their social compensatory hypothesis where they worked harder to become more popular on Facebook. This is a very important point to be addressed as members on SNS who might be popular offline will also strive to maintain their popularity online and people who might not be so popular among their social group offline will also strive to become popular online suggesting the advantage to communicate with others without having any social pressures. It is argued that such benefits of SNS might be since it lacks face-to-face cues and physical presence which gives advantage to people who might be introverts. It gives them the advantage to communicate in a one to one way with members they are more comfortable with. It also gives them the advantage to give and receive social support whenever required thereby contributing to their positive self enhancement and wellbeing.

While one group of researchers claim that members who have established offline contacts self-enhances by extending their social contacts online too and has been hypothesized as Social enhancement (“Rich get Richer”) or the “Matthew Effect” (Merton, 1968). Whereas the other group of researchers suggest that it is a Social compensation method (“Poor get Richer”) where when members have failed to establish adequate offline social contacts compensates by establishing online social contacts (Barker, 2009; Kuss & Griffiths, 2011). This is in line with the SIT as it is seen that when members fail to identify with their social groups they look for new social relationships. It is also suggested that there will be an increase in self-categorization when members fail to identify with their established social network. Such identification and categorization is speculated to be more on SNS due to the level of anonymity members have. Members are thus free to create their own social groups and even maintain privacy settings which allows members to interact with other members without any social pressure. While this could be seen to have its benefits, however if members are not careful this can often lead to online social tension if the members they might be newly interacting with, might also be linked to the other members they might not want to connect or interact with. Although there might be risks attached

to such process, the benefits that come with it can certainly be linked to help in online self-enhancement.

The overall theoretical literature provides a number of important insights on the importance of self-enhancement in an online environment like SNS. The universality of self-enhancement tactics used by members from both individualist and collectivist cultures is supported in this study. Past studies as seen has mostly focused in understanding the role of self-enhancement mainly in an offline context or looked at self enhancement in relation to personality traits or demographic differences. There is a lack of studies that has looked at the role of cross-cultural impact on the role of self-enhancement in an online environment and this research fills in this gap by evaluating the cultural influence on self-enhancement in an online environment. Below are some of the hypothesis which this study aims to address:

In the following study, it is hypothesized that:

**H3: Forms of online self-enhancement will vary across cultures. Individualists self-enhance more on individualist attributes compared to others online whereas collectivists self-enhance more on collectivist attributes compared to others.**

Self-comparison has been seen to increase sense of competition even in collectivist countries. Therefore, it is speculated that even though members from collectivist cultures will have more social contacts that they might share an offline relationship with, when members are compared with others they would also prefer to place themselves at a higher place. However, it is expected that members would rate themselves higher on their cultural specific traits even when they are on SNS.

**H4: Intensity of Facebook use will mediate the relationship between cultural orientation of participants and their online self-enhancement such that more intense Facebook use leads to more self-enhancement in both cultures.**

The type of activities members undertakes and the time they invest helps members to increase the chances to interact with their social contacts on Facebook. However not all members will interact in the same manner and the level of participation and interaction with the social group will vary based on their goals, motivations and also cultural constraints. It is envisaged that in order for members to self-enhance they need to interact with their social contacts where differences in



activities and frequency of Facebook use will have an impact on the level of self-enhancement and members from collectivist countries (Indonesia) will self-enhance more on collectivist attributes than individualist attributes. Members from individualist countries (UK) will self-enhance more on individualist attributes than on collectivist attributes.

**H5: There will be a positive relationship between network size in both cultures and online self enhancement such that increase in number of social contacts on Facebook will increase feelings of self-enhancement for participants in both UK and Indonesia.**

While it is important to understand that one cannot communicate in isolation, therefore it is envisaged that participants will be able to self-enhance more with the increase of their social contacts. Although level of self enhancement will vary with cultures, it is speculated that members from individualist country (UK) will self-enhance more than their counterparts as it is expected that they will have a higher number of social contacts on Facebook.

#### **2.2.4. Online Perceived Social Support**

SNS provides an environment for its members which helps them to interact with their social network without any restrictions. Past studies have found improved life satisfaction associated with Facebook use (Ellison, Steinfield, & Lampe, 2007; Valenzuela, Park, & Kee, 2009). Being able to receive instant feedback is something that was not possible before and when members are able to receive positive, it has resulted in the increase in self-esteem and well-being. Alternatively, negative feedback from members on SNS has also seemed to decrease self-esteem and wellbeing (Valkenburg, Peter, & Schouten, 2006). While SNS like Facebook helps members to extend their social relationships from offline to online (Ellison et al., 2007), it also provides its members increase opportunity to seek and provide social support. Additionally, SNS also allows its members to meet people with similar interests and goals (Ellison, Heino, & Gibbs, 2006) where members have the advantage to extend such online relationship to offline relationships (Parks & Floyd, 1996), suggesting that members are not just using the SNS for communication purposes but also extending their offline social spheres.

Being able to meet new people online, members can compensate for the social support people received offline as they are able to meet people online with whom they could identify with

(McKenna & Bargh, 2000). Human beings are social animals and the importance of our bonds with friends cannot be ignored as it contributes to our happiness (Myers, 2000). SNS like Facebook provides platform for its members, where they can maintain existing relationships but also create new ones (Ellison et al., 2007), they can also create an online profile of themselves with information that they believe would persuade others to perceive them how they want to be perceived, thereby helping members to boost their self-esteem (Gonzales & Hancock, 2011). While SNS, allows its members to expand their social network which might have not been possible before which allows them to seek social support whenever required from a wider network, however, it could also be argued that larger and diverse social sphere might consist of close ties, who might provide social support when in need. While the number of friends might be higher for individualists who are not restricted by their commitment to their social group but instead has the advantage to make decisions freely, the number of friends on SNS for members from collectivist countries might on the other hand might be mostly restricted to close network of friends which can have an impact on the support one receives on online.

Social support has been seen to be positively associated to the number of friends and subjective wellbeing (Myers, 2000). Having too few friends can limit the chance of social support one can receive. While SNS like Facebook provides the platform for its members to create their own social sphere where members can friend other members based on their interests where members can increase their social capital. However, the social support members receive would depend on the level of trust members have between each other. When members have larger social network, it is not always possible to invest their time with all its members in the network. Therefore, they might not have the advantage of receiving social support from all its members on the social sphere. Members might have simply added new members to their social sphere to display their popularity and not just for relationship building. On the contrary, having too many friends on SNS has also been seen to have a negative impact on its member's popularity (Tong et al., 2008) suggesting that if members show a larger than real number of friends on their network it can instead draw them away from each other. Therefore, it is important to understand that if members want to maintain online social networks from which one can seek social support in times of need or crisis, it is important to maintain a realistic number of friends on the social network which can vary between cultures.

Members on SNS like Facebook are able to communicate with each other via different means, such as private messaging, commenting and even via their profiles (Ellison et al., 2007). The advantage of being able to add editable information on Facebook, allows its members to display information selected individuals or selected group can see (Walther, 2007), which help members to portray their positive attributes of their identity. It is therefore argued that this editable functionality on SNS like Facebook help accentuate attributes of their social self which is important in maintain a social identity online (Lea & Spears, 1991; Spears & Lea, 1994) as members shift their thoughts and behaviours by focusing on social self rather than their personal self. This is a advantage for members on SNS as it allows members to show that they could be trusted which is displayed by their profile information online, that help to form their online identity (Tajfel et al., 1971). Furthermore, by being able to self-categorize themselves to their respective groups members are able to portray their group identity to others (Tajfel & Turner, 1979; Tajfel, 1978; Turner, Wetherell, & Hogg, 1989) which could be argued to provide members the advantage to display group oriented behaviour (Klein et al., 2007), which help members to show their loyalty towards their group but also increase their opportunity to seek social support whenever required which however could vary due to cultural differences. While it could be argued that such functionality would be beneficial for members who join SNS to seek support which they might not get offline, it is however important to portray truthful representation of themselves, if members want to maintain long-lasting and trusting relationship. (Gibbs, Ellison, & Heino, 2006) where members not only get subjective well-being of themselves but also helps members to receive more social support (Ko & Kuo, 2009; Zhao, Grasmuck, & Martin, 2008) and as such can also equip members to deal with negativities in life (Dunn et al., 1988).

It is however important to understand the effect culture can have on the self-presentation of members on Facebook. Having an existing offline relationship with online members' result in the display of truthful representation of themselves, as members might fear that their offline contacts would become aware of any false representation, which can have adverse impact on their social identity. As this is an anonymous environment, where members do have the privilege to indulge in one-to-one private communication with other members, the fear of having a bad reputation among the social network would refrain members from posting false or inaccurate information on SNS. However, this could certainly be achieved if members create pseudo profiles for themselves

or create an alternative profile which with selected members who they want to display exaggerated or inaccurate information.

This section outlines the importance of social support in an online environment. While SNS is helping members to access and extend their social network, it has also been seen to have its benefits (Ellison et al., 2007). It has also been highlighted that by providing a truthful visual information, members can manage their identity which in turn give members them the opportunity to seek social support, when needed. This is particularly beneficial for members who might find it difficult to express themselves when communicating face-to-face. Anonymity on SNS is therefore helpful in providing a platform which help members to freely express themselves as it lacks the physical presence of the members. Therefore, it can be argued while face-to-face communication might be better for some as it helps to seek social support directly, anonymity on SNS on the other hand helps to provide a platform where members can use their discretion freely to seek social support from members they are comfortable with. Therefore, understanding the role of social support in an online environment is crucially important if researchers want to understand online behaviour. In order to understand how members in different cultures views perceived social support online, below hypotheses were outlined:

**H6: Intensity of Facebook use would mediate the relationship between culture and social support, such that there increase in Facebook intensity would increase perceived social support for its members in both cultures.**

Members from collectivist countries believes in maintaining a harmonious relationship with their social sphere which they consider as the prime goal for themselves unlike individualists who believes in being independent and autonomous (Markus & Kitayama, 1991f; Markus & Kitayama, 2010) would be seen to have an impact on the time and frequency of Facebook as due to social restriction and availability. This would be having an impact on social support members receive online however on the contrary as members from collectivist countries would have higher number of friends on their social sphere with whom they might already have established relationships offline would result in members from collectivist countries would receive more social support than members from individualist countries.

**H7: Increase in Facebook network size would have a positive impact on perceived social support that members receive online.**

As discussed in previous paragraphs, network size seems to play an important role on social support. While increase in the number of friends helps to increase the possibility of being able to get access to a wider network from whom members have a higher potential of seeking social support, however it is also important that the network size is realist and not inflated which has been seen to also have negative effect however cultural differences would have an effect.

### **2.2.5. Online Trust**

Individuals prefer to disclose more information when face-to-face than when they interact online (Emanuel et al., 2014). Anonymity on SNS, which lack presence of physical cues calls for a level of trust between members which develops between members with time (Wilson, Straus, & McEvily, 2006) as they engage in activities online, thereby helping develop a trusting relationship between each other that motivates online communication (Fogel & Nehmad, 2009; Valenzuela, Park, & Kee, 2009). This development of trust, without having any physical cues is something that has fascinated social scientists. While on SNS members can create their online profiles for themselves with personal information about themselves such as name, date of birth, contact details, personal interests and add their pictures that are editable. It is possibly these information cues about other members that persuades others online to trust other members. Members on SNS indulge in online communication despite being aware of the risks associated with it. It can be speculated that as members in an online environment lack the face-to-face connection, they are forced to implicitly trust their social contacts on SNS like Facebook and assume that other members will not abuse their personal information. This virtual relationship which develops due to their shared beliefs and interests among each other helps them to develop such trusting beliefs (Walczuch & Lundgren, 2004) which helps to mitigate such risks in an online environment. Being able to see information about others, it helps them to develop a feeling of trust which makes them disclose information about themselves too. The world of SNS is an environment which members cannot control as members are free to share their opinions and views without any restrictions. However due to the level of functionality which equips members to have control of their information helps in the development of trust as it helps to mitigate such perception of risks associated with such online communication. For members to trust each other, they would need to persuade others to trust them which is in line with the identity performance function of SIDE,

fulfilling the identity consolidating function (Klein et al., 2007) which further helps members to persuade others to follow them.

By providing personal information on the profiles, members can reduce ambiguity on SNS and help to create positive interpersonal relationship with other members (Tanis & Postmes, 2003). When members are not aware who they are interacting with on SNS members develop a sense of uncertainty as they are unable to predict the behaviour of the other person which results in less trusting perception for the members. It is however anticipated that as members from collectivist countries might have a higher number of social contacts on their Facebook network with whom they might already have established social relationships, the feeling of uncertainty might be less among collectivists members than members from individualist countries as their social network might be more diverse and they might have less number of members that they have established offline relationships.

Members on SNS friend others and engage in communication only when they are able to establish common interest among each other which help them to develop an intrapersonal and interpersonal relationship online which is in accordance with SIDE (Lea, Spears, & de Groot, 2001; Postmes et al., 2001; Sassenberg & Postmes, 2002) which postulates that unlike the de-individuation model members in a group are able to identify with the other members and accentuate group membership. This identification on SNS with their in-groups and even out-groups helps to develop a level of trust and reciprocity. While it has been argued that the level of trustworthiness and reciprocity will be higher for in-groups thereby giving rise to in-group favouritism and prejudice behaviour among group members. In respect to SNS, identifiability with other members is therefore crucial which helps to develop a trustworthiness towards others, however in accordance to the SIDE Model such level of trustworthiness is accentuated towards group membership when identity of members is not available. However, on SNS like Facebook, identities of members and group members are available as members have their profile information, it is therefore expected that such level of trustworthiness will be higher towards group membership as this will help to show group loyalty in view of reciprocity. In accordance with the SIDE Model members on SNS interacts with an expectation of reciprocity from other group members however this can vary based on cultural orientation of members. While members from collectivist cultures might be more inclined to show trusting behaviour and reciprocity towards others as they might

be having established offline social contacts with the other contacts. This will help them to show their level of loyalty towards the other member with a hope that such behaviour would be returned for them in the future too. However, such reciprocity behaviour towards individual group members would only be possible when it has positive impact for the group. On the contrary members from individualist countries might also show reciprocity towards individual group members however only when it might accentuate their own personal identity and help to stand out from other in-group members further highlighting the role of culture on user behaviour.

Due to the level of anonymity, members strive to form a bond by providing personal information about themselves that helps to reduce uncertainty (Hogg & Turner, 1987), which helps to build trust among each other (Metzger, 2004) and results in exchange of communication, which highlights the requirement of mutual exchange of information further supporting the Social Exchange Theory (Roloff, 1981) which posits that if social exchange takes place when there is perceived benefit in any particular interaction and is measured in terms of cost. Trust plays a central role in Social Exchange theory as high level of trust leads to low perception of cost and vice versa. Therefore, within a SNS environment members would seek out relationships with other members by looking at the personal profile information and would involve in positive interaction and would refrain from interacting with members that would have negative outcome for them. Once members on SNS can identify with their group they are able to develop a trusting relationship with their group members. Additionally, when there is any threat to the identity of the group, it also leads to in-group bias or prejudiced behaviour towards the in-group members (Turner et al., 1987; Turner & Oakes, 1989; Voci, 2006). Due to the cultural differences, it is anticipated that members from collectivist cultures, who would have a stronger group identity (as their groups would generally consists of members with whom they might already have offline relationship) would show prejudiced behaviour towards their in-group members more than members from individualist cultures which helps members to show loyalty towards their group which helps members to achieve self enhancement (Sedikides, Gaertner, & Toguchi, 2003; Sedikides, Gaertner, & Vevea, 2005). It is further anticipated that such trusting behaviour would be stronger among members from collectivist cultures than members from individualist cultures. On the contrary, it has been argued that by having a larger social capital gives members the opportunity to trust more people and develop relationships further (Realo & Allik, 2009) as in their study they

have found that individualists tend to have a larger social group unlike collectivists as they like maintaining their trust among their own-group.

For members to know information of their in-groups or even out-groups, members are required to invest their time and often exchange communication with each other, which requires them to invest time and make an effort to interact with others. While such involvement might have positive outcomes like increase trust (Valenzuela et al., 2009) but has also been seen to decrease student cognitive performance (Rouis, Limayem, & Salehi-Sangari, 2011) and excessive use of the internet has also been linked to addiction (Kuss & Griffiths, 2011). Alternately it has been also argued that the type of communicative activity is based on the individual's motive or goal of whether one wants to self-promote or want to maintain relationship (Underwood, Kerlin, & Farrington-Flint, 2011). Although their study was conducted on undergraduate students, this could be well extended to see how cultural self-construal of members would have an impact. However further studies confirm that that members from collectivist cultures would be more inclined to maintain old ties and members from individualist cultures would be more inclined to self-promote based on their cultural difference (Ji et al., 2010).

This section highlighted the importance of trust in develop one's social identity. While trusting relationships are easier to form in an offline world due to the physical presence as members are able to predict the behaviour of others, this is even more important in an online environment where there exists a level of anonymity. Being able to develop a trusting inter group and intra group relationship helps to maintain an online social network. This is seen to been achieved by members disclosing personal information about themselves by wall post, pictures, status updates on their profiles which helps to reduce uncertainty allowing members to successfully predict their future behaviour. Such behaviour in in line with SIDE and the Social Exchange Theory. However, as the world of SNS consists of members from around the globe understanding cultural influence on the level of trust and user behaviour is called for which will be analysed through the below hypotheses:

**H8. Intensity of Facebook use will mediate the relationship between culture and online trust, such that more intense Facebook use higher use will increase online trust in both cultures.**

For members to develop a trusting relationship it is important that members disclose personal information which helps to reduce uncertainly and allows their social contacts to predict their behaviour. Such trusting relationship is also attained through various activities on Facebook and



the time members spend online. It is anticipated that the higher members use Facebook the more opportunity they get to develop a trusting relationship with their in-group members and vice versa.

**H9: Levels of trust would differ due to cultural differences such that collectivists would be more trusting towards collectivist members than individualists.**

While members from collectivist countries prefer to maintain their in-group identity by restricting their social contacts to generally known members, there is a higher expectancy that as they are known members, whom they mostly share an offline relationship too, it thus becomes easier for members from collectivist countries to predict the behaviour of its in-group members than members from individualist countries as their social network online could have a higher number of friends whom they have accepted online, that they might know offline due to which it might be difficult for such members to predict their behaviour. Therefore, it is expected that the level of trust will be higher would be among members from collectivist countries than individualist countries.

### **2.2.6. Online Privacy Concern**

The online environment on SNS like Facebook require its members to share information with others that will allow others communicate with each other facilitating new connections (Lampe, Ellison, & Steinfield, 2006). Sharing personal information has become one of the required norm to help increase social capital. Members not only disclose their names and occupation but they also disclose their date of birth, hobbies, interests, sexual preferences, tastes in movies, music and political views (Gross & Acquisti, 2005). It is now a cultural norm to upload photos and selfies on user profiles to seek instant attention from social groups. While members are aware of the potential online risks, it has however been argued that the benefits achieved by sharing such personal information outweighs the potential privacy risks (Culnan & Armstrong, 1999; Dinev & Hart, 2006), such as the enjoyment one achieves (Rosen & Sherman, 2006), self-presentation (Boyd, 2007) and maintenance of social ties (Ellison, Steinfield, & Lampe, 2007) to receiving social support (Bender, Jimenez-Marroquin, & Jadad, 2011) are some of the benefits of the relationships shared among their social group which outweighs the potential privacy risks equipping members to judge the benefits and costs of the interaction which is supported by the Social Exchange Theory (Homans, 1958). Privacy concern and potential risks on SNS has been a datable topic for a while.

While on some occasions members might be interested in showcasing information to only their own social group whereas sometimes, they might want to reveal information to anonymous strangers and not to known people. Information revelation offline is certainly different from revelation of information online. The subjective relationship that we share with our offline contacts, we categorize our social contacts as “strong or weak ties”, such categorization is not always so straightforward on SNS as members on SNS can only categorize their contacts as either “friend or not”. Their acceptance as a friend can include members in the group that they might be comfortable with. This can certainly raise concerns at a personal level as members might not always be comfortable to share personal information to all members of the group and this is when members either become cautious of what information they post online or become passive group members.

The social spheres members share, are an extension of their offline contacts helping them maintain relationships (Ellison et al., 2007). SNS, like Facebook allow members to spy on their members, where they collect information about others they are interested in, allowing them to know more information about their social contacts rather than just add new social connections (Lampe et al., 2006; Pempek, Yermolayeva, & Calvert, 2009). It has further been argued such surveillance which allows members to know about their social sphere helps to increase Facebook activity. Possibly that is why members prefer to use less privacy settings (Gross & Acquisti, 2005). Their study suggests that 1.2% of users changed the “default” search privacy setting and less than ½% changed their “default profile visibility” option. One of the possible reasons why members feel that in spite of the risks to their privacy they are unconcerned about the use of privacy settings due to the fact that it restricts their opportunity for others to view their information. It is argued that such behaviour is in accordance with the Social Exchange Theory (Homans, 1958) as members feel that everyone online is in the same situation and by not restricting their information would help in reciprocity by others. This will further help them to get information about each other, thereby helping to build trust (Metzger, 2004). While members are ready to take risks online on how much information they want to disclose, such information disclosure also depends on the context of online spaces as it has been found that members would disclose more information in a generic context than when asked to share information on particular context (Emanuel et al., 2014). This highlights that there exists a level of cautiousness among members using the online platform

which is possibly why they also found that members prefer disclosing more information face-to-face than online.

Members on SNS tend to sacrifice their concern for privacy for the benefits that come with it by weighing the costs and benefits that come with it (Hui et al., 2006). Additionally, information fairness helps to build trust that can also reduce privacy concern (Culnan & Armstrong, 1999). Disclosing information on SNS is a crucial requirement for exchange of communication, development and maintenance of any relationship as it help members feel that the other individual is not a stranger. As humans, we tend to become anxious when we are unaware of the situation or when we are not able to predict the behaviour of others due to the lack face-to-face interactions and the physical presence of others, which is why there is always a level of uncertainty in perceiving how the other person might be feeling or thinking. However, when members disclose information about themselves it helps to relate to other members, which help in the reduction of uncertainty, as members can predict their feelings and actions.

Being able to get information about group members help in the identification with other group members, which leads to depersonalization and assimilation to group norms (Turner et al., Hogg, 1987). However, depersonalization also lead to in-group bias. The use of filter settings on SNS, like Facebook can also be argued to be a result of depersonalization, which is supported by SCT model, which posit that, when members become part of certain group there is a shift from personal self to a group self and their behaviour is directed towards group goal. Based on such findings it can be argued that such categorization of self would be more explicit among members from collectivist backgrounds as they might be more cautious towards privacy risks than members from individualist countries and thus will be more inclined to use filter settings on Facebook.

Furthermore, as members can control what information to disclose and who can view the information, has also been said to reduce privacy concern (Krasnova et al., 2010). Trust among internet providers has also been seen to reduce such privacy concern, as members can have control of their information they want to disclose. Interestingly their results failed to show that trust among members on SNS helped to reduce privacy concern. In addition to trust internet interest has also been said to reduce perception of privacy concern (Dinev & Hart, 2006). While trust seem to moderate privacy concern, the role of culture certainly cannot be ignored as in a study conducted by (Akbulut & Günüş, 2012) it was seen that using nick names and not full names lead to less

social support from friends and members also received less social support when they added unknown members on their social sphere online further confirming the importance of personal information and online privacy. Their study was conducted in Turkey, which represents members from collectivist countries, their study successfully sheds light on the importance of online privacy among collectivist cultures.

Looking at it from a cultural perspective we would however argue that members from collectivist cultures would be more cautious about disclosing their personal information for the fear of social tension among their social group which might also have an adverse effect on their offline relationship. However, past study conducted by (Binder, Howes, & Sutcliffe, 2009) also suggests that diversity of social spheres predicted online tension. In their study on Facebook participants reported that common features on Facebook which allows members easy broadcast of information lead to online tension. They further suggest that online tension is more likely to be between social spheres and less likely within spheres, suggesting that when offline relationships are extended online there are higher chances of online tension. This is certainly crucial for members who has a higher number of offline contacts on SNS, such as members from collectivist countries, as there would be higher chance of online tension between the social spheres among collectivist members than among members from individualist cultures, which might shed light on the reason why members from collectivist cultures are more cautious in their communication and maintain a lower network size. It is therefore argued that the maintenance of privacy settings would be more crucial for such members if they want to avoid online tension as it is not always possible to have control of what others might disclose.

Therefore, based on past research and theories it is known that concern for privacy does influence how members behave online. However, by being able to develop a trusting relationship where members are given fair information by network providers that facilitate information control to the members on SNS can help eliminate such privacy concern. Members are able to weigh the potential costs and benefits from the interaction and make informed decisions. As SNS is a multicultural platform of SNS which have differences in how members perceive such privacy concern that needs to be evaluated if researchers want to understand online behaviour. The below hypotheses are hoped to answer some of the questions in the study:

**H10: There would be a negative relationship between intensity of Facebook use and online privacy concern, such that increase in Facebook activities and Facebook frequency would decrease privacy concern among online users.**

While it is important for members to interact with others to develop and maintain their online relationships, it is envisaged that the increase in FB activities (type) would result in decrease in privacy concern among SNS users as they would be able to know personal information about other members they interact with, which helps in uncertainty reduction.

**H11: Privacy concern will be more explicit among members from collectivist cultures than members from individualist cultures, such that collectivists would have more privacy concern than individualists.**

While disclosing personal information is crucial in helping members reduce feeling of uncertainty which helps them to maintain a trusting relationship supporting Social Exchange Theory (Homans, 1958) where members can also accept such trusting behaviour from others too.

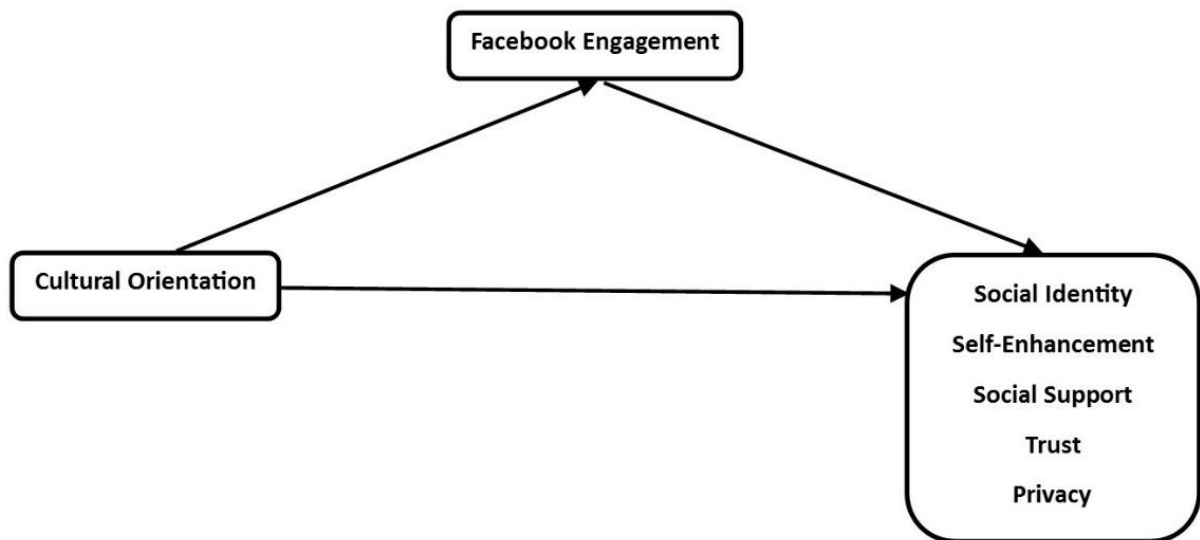
## **2.3. Summary**

This section was an attempt to look back at past research outlining the theoretical basis of this research which looked at SIT, SCT and SIDE but also outlined the importance of SNS. Cultural orientation bears particular importance in various psychological constructs like online group identity (which helps members to develop their social identity), self-enhancement (helps members to self-enhance due to the interaction they make with their social network online), perceived online social support (is the support that members receive when in need), online trust (helps members to develop and maintain trusting relationships) and online privacy concern (allows members to maintain their privacy). It is believed that to fully understand online behaviour through the eyes of culture, it was important to evaluate each of these constructs in one single research, which has not been attempted before. It is hoped that the hypotheses under each psychological construct would allow readers to understand the causal role of culture in that specific psychological construct. While culture is used as the independent variable (IV), online group identity, online self-enhancement, perceived online social support, online trust and online privacy concern are used as dependent variables (DV) in the study. As Facebook provides the advantage of getting access to

an inter-cultural population, this has been used as the platform to access the constructs named above. While the use of cross-cultural research using native population, sample is scarce, this research would not only use all the psychological variables in one study but will also use native sample population to evaluate the true cultural differences in the responses, further helping to maintain validity and reliability of the data. Therefore, this study was conducted in India and Indonesia (where members generally higher on collectivist attributes) and in UK (where members are generally higher on individualist attributes). The below diagram Figure 2.1. illustrates the theoretical framework designed to evaluate the aims and hypotheses in this study. The figure illustrates how the outcome variables like social identity, self-enhancement, social support, trust and privacy are effect by the cultural differences of its members based on how they engage on social media, like Facebook.

*Figure 2.1.*

Visual Representation of the Main Constructs used in the Study



## **2.4. Research Aims and Hypotheses**

This section outlines all the research aim and hypothesis for all the constructs in order to facilitate reader understanding.

### **Aim:**

- a) This research evaluates how differences in cultural self-construal affect online communication, the decisions SNS members make online and the psychological outcomes of these processes.
- b) Additional hypotheses were used to evaluate how Facebook management has an impact on psychological outcome variables, independent of culture.

Below are the hypotheses which the project aims to address:

### **Online Group Identity**

H1: Intensity of Facebook use will mediate the relationship between culture and group identity such that increase in Facebook activity will increase the level of group identity.

H2: Group identification would be stronger among members from collectivist cultures than members from individualist cultures.

### **Online self-enhancement**

H3: Forms of online self-enhancement will vary across cultures. Individualists self-enhance more on individualist attributes compared to others online whereas collectivists self-enhance more on collectivist attributes compared to others.

H4: Intensity of Facebook use will mediate the relationship between cultural orientation of participants and their online self-enhancement such that more intense Facebook use leads to more self-enhancement in both cultures.

H5: There will be a positive relationship between network size in both cultures and online self-enhancement such that increase in number of social contacts on Facebook will increase feelings of self-enhancement for participants in both UK and Indonesia.

## **Perceived online social support**

H6: Intensity of Facebook use would mediate the relationship between culture and social support, such that there increase in Facebook intensity would increase perceived social support for its members in both cultures.

H7: Increase in Facebook network size would have a positive impact on perceived social support that members receive online.

## **Online Trust**

H8: Intensity of Facebook use will mediate the relationship between culture and online trust, such that more intense Facebook use higher use will increase online trust in both cultures.

H9: Levels of trust would differ due to cultural differences such that collectivists would be more trusting towards collectivist members than individualists.

## **Online Privacy Concern**

H10: There would be a negative relationship between intensity of Facebook use and online privacy concern, such that increase in Facebook activities and Facebook frequency would decrease privacy concern among online users.

H11: Privacy concern will be more explicit among members from collectivist cultures than members from individualist cultures, such that collectivists would have more privacy concern than individualists.

*Note: Hypotheses 1 to 11 are tested in the first, survey-based part of empirical work. Additional, follow-up hypotheses in response to the findings for H1 to H11 will be formulated for the second, experiment-based part (see chapters 6 and 7).*

## **2.5. Brief Outline of Research Overview**

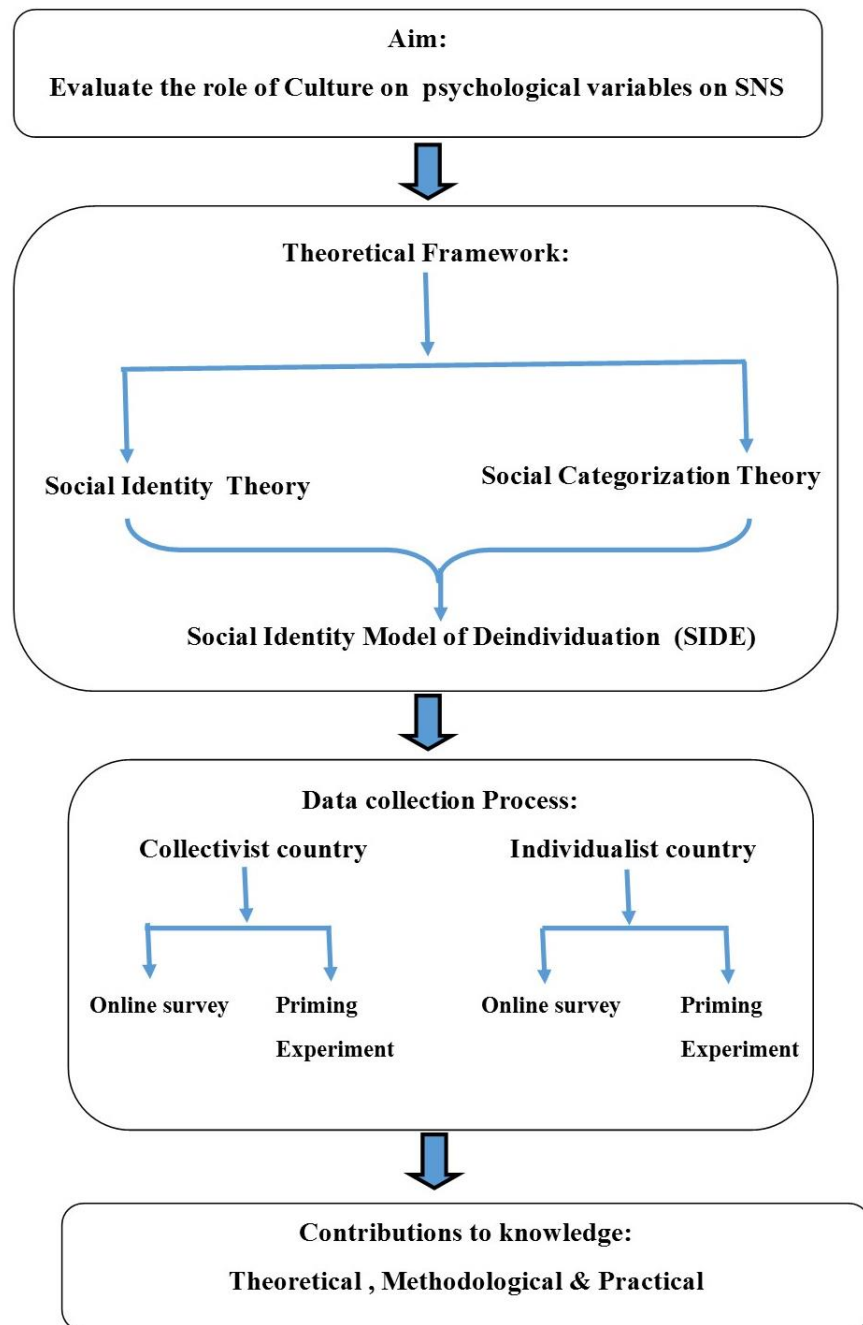
A theoretical framework, combining SIT, SCT and SIDE has been used to address the research questions to evaluate the role of culture on the psychological variables (online group identity, online self-enhancement, online perceived social support, online trust and online privacy concern)



on SNS. A cross-cultural data was collected by using UK (individualist country) and India & Indonesia (collectivist countries) using an online survey and priming experiments. Study 1 and Study 2 consists of the online survey while Study 3 and Study 4 consists of the priming experiments. After the completion of the data, a quantitative analysis was conducted which will be discussed in the later chapters. The findings of this study have theoretical, methodological and practical implications which will also be discussed in later chapters. Figure 2.2 below is a visual representation of the overview of the research which outlines how the research aim is guided by the theoretical framework used in the study and attain results that has practical implications.

Figure 2.2.

Visual Illustration of Research Overview



Note: SNS = Social Networking Sites

# Chapter Three

## Methodology

### 3.1. Introduction

The previous chapter was an attempt to shed light on past research that has been conducted which looked at each of the factors that are relevant for this thesis. The literature review brought to light past findings and gaps that exists in in past studies. Keeping the research aim in mind, this chapter will discuss the methodology that was used to answer the research aim and its hypotheses. It will also discuss the various considerations that were taken into account to develop a consistent research strategy cross-culturally. It is however important to point out that further in-depth information on the methodology (which will discuss the sample, procedure and materials) in each study will also be provided in the later chapters.

*Note: section 3.1.4.3. Survey translation procedure is part of a published journal (Halder et al., 2016).*

### 3.2. Research Paradigm and Outline of Design

Cross-cultural studies systematically compare individual's relationships developed and behaviour in one culture with another culture. Although there has been an increase in cross-cultural research since late 60s but has mostly been led by Western researchers. Berry (1989) further argues that while it is difficult to remove the influence of one's own culture when we are trying to understand other cultures, researchers should make every effort to become submerged to understand the new culture and he suggests that this could be achieved by looking at the constructs in the perspective of cultural self-construal (individualism and collectivism), (see Hofstede, 1980). Therefore, to understand the behaviour of participants on the psychological constructs a cross-cultural method was implied. A quantitative approach was used to collect and analyse data which used a survey design and a priming experiment. While the survey helped to understand the relationship between the constructs, the experiment helped to understand the casual role of culture.

### 3.3. Research Population

Participants were recruited from UK, India and Indonesia and the sample consisted of a mixture of students and participants who were employed too with an age range between 18 – 47 years, justifying a wider demographic sample, which is hoped will help to address some of the sampling issues in past research (Gardner, Gabriel, & Lee, 1999; Sedikides, Gaertner, & Toguchi, 2003), however it is highlighted that even then the sample population was still dominated by student participants in all three cultures. It is however argued that as there is a wider diversity of participants with a wider age range, the results can be generalized to the overall population as even student sample has diverse attitudes.

Around 30 percent of the population in India uses internet of which 23.1 percent uses Facebook and around 30.5 percent of the population in Indonesia uses internet and 4.8 percent uses Facebook. However, when compared to the rest of the world, India is the second highest user of internet after China and Indonesia is the fourth highest internet user (Enrique, 2016). While there seems to be a difference in Facebook use in India and Indonesia however it is also important to justify the reason for using these two countries. While it was important to include countries, which could be representative of Facebook use in the country, it was also important that the countries selected were represented the cultural dimensions that was required for this study. While UK represented the Individualist country, India and Indonesia represents collectivist countries.

India was the first choice as a collectivist country to be used for data collection for the study. However, due to the delay in response from Indian educational establishments, Indonesia was also chosen as the choice for collectivist country to recruit sample for the other studies as both India and Indonesia were similar in the scores of collectivism and individualism attributes (Hofstede, 1980; Triandis et al., 1993). This helped in completing the data collection on time. While Study 3 (Experiment: Operationalization) was conducted in India, Study 1 (Survey: Operationalization, Study 2 (Facebook responses) and Study 4 (Facebook and Priming responses) were conducted in Indonesian.

### **3.4. Research Considerations**

The below sections will outline the various considerations that were considered in order to conduct a successful cross-cultural study.

#### **3.4.1. Cultural consideration**

The most important cultural consideration that had to be considered was the inclusion of both male and female participants in the study as both India and Indonesia seemed to score high on masculinity on Hofstede's cultural dimension. To ensure consistency in the study, same procedure for data collection was used in all countries. Care was taken that during data collection either the researcher or a research assistant was present during the study to handle participant queries. In addition, all the responses that were recorded in paper format was stored safely and destroyed once the data was inputted in electronic format. All the data that has been recorded electronically has been stored safely.

#### **3.4.2. Language consideration**

For the data that was collected in India and Indonesia, the research material was translated in the native language of the country. For India, the survey was translated in Bengali (native language of Kolkata) and in Bahasa for the Indonesian sample. In order to avoid errors and increase equivalence across cultures a back-translation method was used (Behling & Law, 2000; Van Widenfelt et al., 2005).

##### **3.4.2.1. Survey Translation Procedure**

The variability in different cultures makes it difficult to administer the same instrument consistently in all cultures (Sechrest, Fay, & Zaidi, 1972; Sekaran, 1983). Only when we can use the native language of the respondents which will ensure that they can fully comprehend the items in the instrument which will then allow them to give their truthful responses. There needs to be a balance between maintaining methodological requirement and literal meaning of the items (Sechrest et al., 1972; Sekaran, 1983). Administering a culturally viable research instrument can

only be achieved when it is used in the participant's native language which can be achieved by translating the research instrument that will ensure the identification of such cultural variance adequately. Although it has been argued that academic researchers can fail to identify individual cultural differences if they focus too much on maintaining methodological equivalence, on the contrary it can also be argued that only by maintaining such equivalence can we minimize the variance in a data set. The actual approach needs to be the researcher's individual decision. In the present study, care was taken that participants in both cultures received the same information throughout their participation as suggested by Sekaran (1983).

This particular study was in the format of a survey and very much text-based, the immediate question was that of translation. One of the primary goals of translation is to obtain an instrument that could be used consistently between cultures, i.e., with same literal and cultural meaning (Brislin, 1970; McGorry, 2000). It is not only important to get at the correct "linguistic" translation, but at the same time to achieve an equivalence in cultural meaning thereby helping the researcher's belief that intercultural differences in the findings are not due of translation error. There are different ways of conducting a translation in a systematic way, e.g., the one-way translation (without any back translation in the original language), translation by committee (this method involves two or more individuals who are familiar with both languages who translate the instrument from the original version. The researcher then uses the independent translators to arrive at a consensus or can even recruit an additional independent party to choose the version that fits best with the original version) and decentring (this method involves designing survey instruments which fit in with the target culture and involves constant revision of the original survey instrument. This method can also alter the items and survey length (McGorry, 2000). Using bilinguals, who can read and write fluently in both languages are crucial during a translation process (Marin & Marin, 1991). However, cultural phraseology should also be considered where regional or class differences matter. So, it is first important to decide which groups of culturally different people are under investigation.

Being able to develop a culturally and literally viable instrument was crucial for the research design and for maintaining validity and reliability of the data. Therefore, two independent groups of translators which consisted of three members in each group were recruited who were fluent in reading and writing in both English and Bengali (the Indian native language most relevant in

Kolkata) in order to conduct the back-translation process adequately (see Figure 3.1). This process of translation is recommended to be the most adequate (Marin & Marin, 1991) and was also cost effective and quick unlike the decentring process of translation (McGorry, 2000) as it did not depart from the original version of the survey instrument. It was also different to the translation by a committee method since the three members in each group translated the survey items after a group discussion and not as independent translators.

The translation method selected for this particular study had the advantage of quickly removing any discrepancies in the translated version as survey items were translated after coming to a group consensus. Although it is recommended that applications of several translation processes would help us to achieve a more accurate and culturally fit instrument (McGorry, 2000), it is however not always possible for researchers due to restrictions in funding and time constraints. Below is the step by step guide of the back-translation process used.

#### **3.4.2.1.1. Back Translation Procedure for research instrument in India**

- 1) A focus group of three Bengali translators were selected who have studied and lived in Kolkata. They could read, write and speak fluently in Bengali and in English.
- 2) The focus group was asked to read through the questionnaire which was in the original English version and then after discussion with each other came up with a Bengali version of each item on the survey.
- 3) Another focus group of three Bengali translators were selected for the back translation procedure. They could also read, write and speak fluently in Bengali and English.
- 4) The second focus group was asked to read every statement in the Bengali questionnaire and come up with an English version of each statement on the questionnaire. This was also achieved with discussion between the three members in the focus group.
- 5) The original English version of the questionnaire was then compared with the second English version of the questionnaire by all parties including the researcher. Although both the original English version and the second English version of the questionnaire were not exactly the same, the core meaning of each survey item was found to be well preserved. Hence there were no

further changes made to the translated version of the questionnaire for the study. On completion of the translation process the survey were administered to participants in India.

The below process outlines the translation process that was followed in India followed by Figure 3.1. which illustrates the overall back translation process that was used throughout.

#### **3.4.2.1.2. Back Translation Procedure for research instrument in India**

1) A group of back translators were recruited who helped to translate the research material in Bahasa Indonesia (native language in Indonesia). The translators were undergraduate students in Indonesia who could speak, read and write in Bahasa Indonesia and English and lived in Indonesia.

2) At first a focus group of two English and Bahasa Indonesia fluent translators read through the English version of the questionnaires and after discussion with each other translated each item on the questionnaires in Bahasa Indonesia version.

3) The Bahasa Indonesia versions of the questionnaires were then back translated by another focus group of two who translated back each item into English. The two back translators were researchers and was pursuing a PhD from a UK university. They were both lecturers in reputed Indonesian universities. Both back translators were could speak, read and write in English and in Bahasa Indonesia.

4) The original English version of the questionnaire was then compared with the second English version of the questionnaire by all parties including the researcher (see Figure 2 for the full translation process). During instances when the back translators did not agree with any particular word used in Bahasa language, the item in the Bahasa Indonesia version of the questionnaire was changed to fit in with the meaning of the survey item after careful discussion with each other. Care was taken to make sure that the core meaning of the item was preserved.

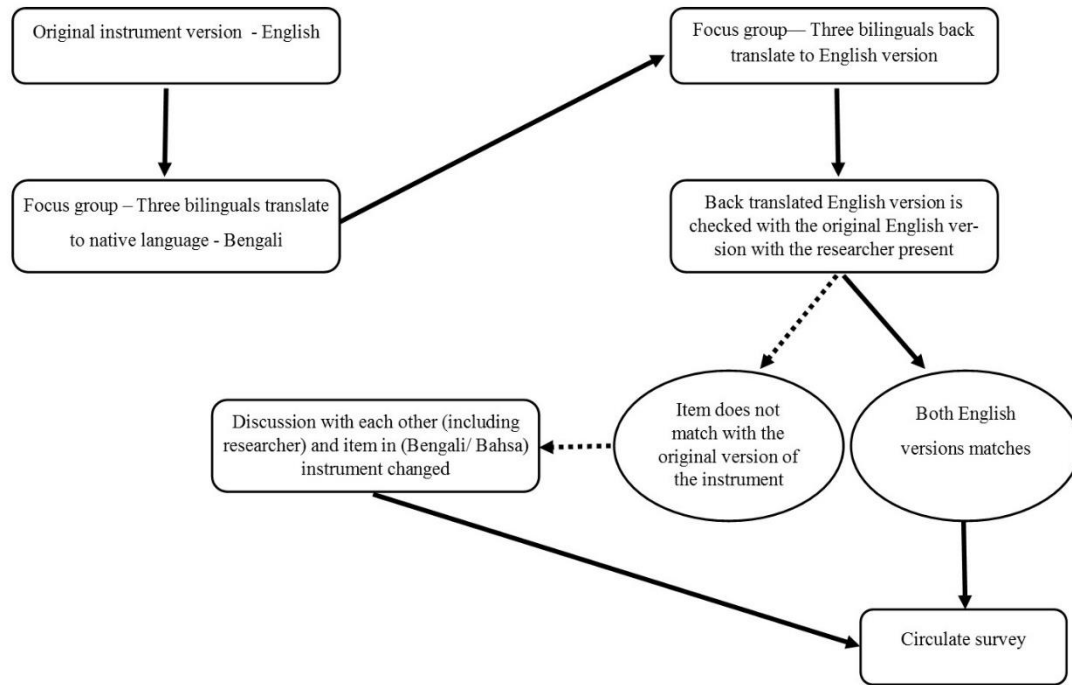
5) Once all the items had been checked, the changes in the Bahasa Indonesia version was made and the final version of the translated questionnaire was then scanned and emailed to the research assistants in Indonesia.

On completion of the translation process the surveys were circulated among the participants in Indonesia. Figure 3.1 below illustrates the overall back translation process followed in both countries.



Figure 3.1.

An Illustration of the Back Translation Process followed in India & Indonesia



### 3.4.3. Ethical considerations

Throughout the process of the study all guidelines outlined by the British Psychological Society and the Nottingham Trent University were adhered to. Prior to the data collection, ethical approval was gained from the Nottingham Trent University's Ethics Board following the submission of all the research questions, instruments, participant consent and debrief forms (see Appendix). As it was a cross-cultural survey clear information on the data collection process was also outlined. Due to the cultural differences involved in the study, all participants were clearly informed of what would be expected from them and also about their rights. The participants were clearly informed of that their participation was completely voluntary and that all their data would be kept anonymous and would be identified with their unique number only.

The data collected was stored in a secured drive and were identified by unique numbers only. All paper copies of the responses were destroyed after the data had been saved online on the Bristol Online Survey repository both for the UK and Indonesian sample. For the Indian sample, all data once saved on a secured drive the paper copies of the responses were destroyed. As a thank you for their participation all participants had the chance to enter in a lottery draw to win prizes which included vouchers from their respective countries. The winners in all the countries were emailed to inform that they had won the lucky draw and the prizes were sent to them by post. No monetary award was given to the participants.

Although this cross-cultural research was conducted taking into considerations all ethical considerations, however there were several challenges that were encountered during data collection and in India (see Appendix 13). This section outlines the various challenges faced during the data collection in India with an aim of helping future researchers.

### 3.5. Overview of Study Design

The data collection was conducted in India, Indonesia and in the UK. All the surveys were developed keeping in mind the research questions. This was achieved by thorough in depth literature review and thorough discussion with the supervisory team. Below is an overview of the four studies that was conducted during the research process (see Table 3.1).

- a) **Study 1: Survey (*Operationalization*)** – An online survey was conducted in UK and Indonesia. While the survey in UK was conducted online, the translated version of the survey was circulated in paper format for the Indonesian participants and their responses was then submitted by a research assistant online in English. The study was further refined after careful considerations of the feedback received from Study 1.
- b) **Study 2: Survey (*Facebook responses*)** – This online survey was a refined version of Study 1 and was circulated among the UK and the Indonesian sample. The Indonesian sample were given the translated version of the questionnaire which was later submitted online by two research assistants.
- c) **Study 3: Experiment (*Operationalization*)** – Surveys in the form of questionnaires which had two versions was conducted in UK and in India. While the questionnaire was

conducted in English for the UK participants, a translated version of the questionnaire was circulated among the Indian sample. All the responses were submitted online by research assistants.

- d) **Study 4: Experiment (*Priming & Facebook responses*)** - This was the refined version of the experiment study (Study 3) and was circulated among the UK participants and the Indonesian sample. The Indonesian sample were given the translated version of the questionnaire which was later submitted online by research assistants.

Data analysis was conducted after each study using SPSS version 22 and 23. During this process all feedback received from participants during were taken into consideration which helped in the development of amended versions of the instruments (both survey and experiment). The amended versions of the instruments had in depth and clearer instructions and had additional scales which helped to answer research questions.

**Table 3.1**

*An Illustration of the Study Design for the Thesis*

<b>Study</b>	<b>Type</b>	<b>Country</b>
Study 1	Survey ( <i>Operationalization</i> )	UK & India
Study 2	Survey (Facebook responses)	UK & Indonesia
Study 3	Experiment ( <i>Operationalization</i> )	UK & Indonesia
Study 4	Experiment (Priming & Facebook responses)	UK & Indonesia

### **3.6. Summary**

This chapter was an attempt to provide an outline of the methodological considerations and bring to light the studies conducted. Attempt was also made to highlight the importance of cross-cultural study and discussed how the translation of research instruments are crucial in capturing valid responses from research participants. This chapter also highlighted the entire process of data collection through four different studies (Study 2, Study 3 and Study 4). The next chapter four

chapters are the Results section which will discuss each Study conducted and analysed in further detail.

# Chapter Four

## Study 1: Survey (*Operationalization*)

### 4.1. Rationale for this study

The main aim of Study 1 is to use it as a testing ground to check whether the data collection process, survey design could consistently be used in both countries successfully. It was also further aimed to check if the measuring scales used in the study was best suited to answer the research aim which was to evaluate the role of culture on various psychological variables in an online environment. While this study helped to conduct preliminary analysis of the data, further detailed analysis will be discussed in Study 2. While it is known that culture does influence behaviour, it envisaged that such cultural differences also exist in an online environment thereby helping us to understand its impact on some of our psychological variables which effects how members behave on SNS. In order to clearly evaluate any cultural effect this study was conducted in Indonesia (a collectivist country) and in UK (an individualist country).

The scales in the study consisted of several constructs which looked at online behaviour like cultural self-construal (which measured cultural orientation of the participants), social support, group identity, trust, self-enhancement and privacy. While the cultural self-construal scale consisted of survey items that measured overall cultural orientation and included items measuring individualist traits and collectivist traits, the other items were measured in relation to the online environment. For example, social support (items measured how to what extent participants received social support online, group identity (items measured how much members identified with their social network), trust (items measured how much participants trusted their social group on Facebook, self-enhancement (items measured how much participants self-enhanced on Facebook when compared with others and privacy (items measured how much participants were concerned about their online privacy). Most of the scales were validated scales adapted from past literatures and will be discussed in the below paragraphs. Once the scales were finalized, the format of the questionnaire was decided. The questionnaires were designed keeping in mind that the questionnaires would be circulated in both western and eastern cultures. Due to this the language was kept simple and translated versions of the questionnaires was used for India and Indonesia as

English was not their first language. After the data was collected all data was analysed using SPSS version 22 and 23 and other advanced statistical packages like PROCESS and AMOS.

## **4.2. Method**

### **4.2.1. Participants**

A total of 150 (UK:  $N = 47$ ; 76.6 per cent female; Indonesia:  $N = 103$ ; 65 per cent female) university students in the UK and Indonesia participated in a survey and were all Facebook users. The mean age of the participants was UK: 20.51 years ( $SD = 5.02$ ) and Indonesia: 20.54 years ( $SD = 2.37$ ) with 97.9 per cent of the respondents falling in the range from 18 to 27 years.

### **4.2.2. Procedure**

An online survey was developed on the Bristol Online Survey (BOS) website and was administered across university students in UK. For the Indonesian sample, an Indonesian research assistant was recruited who was fluent in both English and their native language who helped to circulate the paper version of the survey to the University students in Indonesia and then inputted the responses online on the BOS in English. The data input on the BOS website was also double checked by another research assistant who was also recruited to avoid any mistakes.

While UK participants received the English version of the survey the Indonesian participants were given the translated version. The survey lasted for approximately 15-20 minutes. Full participant consent was attained and participants were also made aware of their rights before their participation in the survey. Participants were also given the chance to enter in a lottery draw to win gift voucher as a thank you for their participation which was completely voluntary.

### **4.2.3. Materials & Description of items**

Study 1 was a survey development study, where participants were given full participant information about the survey and their rights. It also had information on the chance to enter in a lottery draw after the survey which was completely voluntary. After completion of the survey

participants were debriefed and winners of the lottery draw were notified with their gift vouchers in both the country. The survey collected demographic information like “gender”, “age”, “ethnicity”, “work: employed –full time; employed – part time; unemployed; student – full time; student – part time”. It also checked the “Country of Residence”, “Nationality”, and “First language” of the participants. Participants were also asked to enter a unique code (combination of number and letters) which was to be used to identity their survey in case of any queries or issues. In order to take part in the survey participants had to be members on Facebook as some of the questions in the survey was in relation to their Facebook usage.

In order to understand network diversity, participants were asked to provide the number of members (to the best of their knowledge) they knew in each category both offline and online. The categories included were “Immediate family”, “Other birth family”, “Family of spouse or significant other”, “Co-workers”, “People at work but don’t work with directly”, “Best friends/confidantes”, “People known through hobbies or recreation”, “People from religious organizations”, “School relations”, “Neighbours”, “Just friends”, “People known through others”, “People who provide a service” and “Any other”. Participants were informed that people they know under each category could also be known to them online and offline. The intent of this was to evaluate the network size participants have online and offline. The overall network size for each category was then computed for both online and offline network.

In order to understand members, use of Facebook participants were asked to indicate the average number of hours (in minutes) and average number of days they used Facebook in the last fourteen days. The minutes were converted to hour for final analysis and an overall mean score was computed for the days’ participants used Facebook “FB Days” and the amount of time they invested while on Facebook “FB HR”. Participants were then asked to think about the use of Facebook in the last fourteen days and indicate on average in minutes their usage during weekday and weekend for “study – used Facebook solely for study purpose”, “work – used Facebook solely for work purpose”, “social life – used Facebook just for socializing” and “mixed – used Facebook for work/ study and socializing at the same time”. The minutes was converted to hour for final analysis. Participants were then asked to also rate on several scales adapted from past research. The below sections will provide details of the scales that were used in the study.

**4.2.3.1. Cultural Self-Constraint scale:** This scale measured the level of cultural self-construal of the participants and has been adapted from validated scales used by Singelis (1994). The original scale had 12 items for measuring collectivism self-construal and 12 items measuring individualism self-construal. For this study 8 items measuring collectivism self-construal and 8 items measuring individualism self-construal scale was used in order to fit in the most relevant items for this study. Some of the wordings of the scale was changed to fit in with the current study. For example, one of the item in the independent scale was “Speaking up during a class is not a problem for me” was changed to “Speaking up is not a problem for me”. Also, another item in the independent scale was “I am the same person at home that I am at school” was also changed to “I am the same person at home that I am during social gathering”. The cultural self-construal scale was divided into two separate self-construal scales, one measured the level of individualism for the participants and the other measured the level of collectivism for the participants. Respondents were asked to rate the items in relation to their Facebook contacts and also in relation to their overall social contacts (this included both online and offline social contacts they knew). The items were coded using five point Likert scale ranging from “Strongly Disagree” to “Strongly Agree”. For this study “Strongly Disagree” was coded as 1, “Disagree” was coded as 2, “Neither agree or disagree” was coded as 3, “Agree” was coded as 4 and “Strongly Agree” was coded as 5. For a full list of the items see Appendix 1. The internal consistency of the collectivism measuring items was (Cronbach alpha = .61) and for the individualism measuring items was (Cronbach alpha = .56). In order to calculate the overall cultural orientation (CO) score for the participants, the items measuring the level of individualism self-construal reversed scored so that it is in line with the collectivism measuring items as higher score on the collectivism scale would mean lower score on individualist traits. The same process was followed for both the Facebook cultural orientation and also overall cultural orientation of the participants.

**4.2.3.2. Facebook Activity Scale:** This scale was included to evaluate the different types of activities participants use when they are on Facebook. This scale adapted from past validated scale used by Junco (2012) and had a scale reliability of (Cronbach alpha = .88). Respondents were asked ‘how often (on average) have they engaged in the following activities on Facebook in the last 14 days’. The respondents were asked to give their best rating. Facebook activity was coded using five point Likert scale ranging from “Never” to “Very often (close to 100% of the time)”. For this study “Never” was coded as 1, “Rarely” was coded as 2 (25%), “Sometimes” was coded as



3(50%), “Often” was coded as 4 (75%) and “Very often” was coded as 5 (100%). Respondents were asked to rate as per the best of their knowledge how often (on average) they involved in such Facebook activities. An overall mean score for the scale was also computed.

**4.2.3.3. Online Group Identification Scale:** The group identification scales looked at how much respondents identified with their social group on Facebook and was adapted from past validated scale used by Brown et al. (1986) however only six out of the original ten items were used in the study. Some of the phrasing of the items in the scale were also changed to fit in with the study. For example, the item “I am the person who identifies with the group” was changed to “I see myself as a member of my Facebook community”, “I am a person who considers the group important” was changed to “It is important for me to be a member of my Facebook community”, “I am a person who is glad to belong to the group” was changed to “I like being a member of my Facebook community” and were the three positively rated item. The other three reversed items were used in the scale to get the truthful responses from the respondents and avoid any false information as these reversed items will force respondents to think and provide their ratings. Again, the item “I am a person who makes excuses for belonging to the group” was changed to “I am not glad to be a member of my Facebook community”, the item “I am a person who tries to hide belonging to the group” was changed to “I am not proud to be a member of my Facebook community” and the item “I am a person who feels held back by the group” was changed to “I do not like being a member of my Facebook community”. The negative items were phrased similarly to enhance participant engagement. The internal consistency of the amended version of the six items in the group identification scale was high (Cronbach alpha = .75) suggesting that the items measured the same construct. For this scale, too an overall mean score for the scale was computed for analysis.

**4.2.3.4. Online Self-Enhancement Scale:** This scale was designed as an attempt to show that self enhancement does exist in both Western and Eastern cultural and had been adapted which has been validated in the past (Gaertner, Sedikides, & Chang, 2008; Sedikides, Gaertner, & Toguchi, 2003). Participants were asked to provide their responses on a six point Likert scale ranging from 0 (lowest score) to 5 (highest score) The higher the rating the higher they score on that attribute. They were first asked to rate themselves on the cultural traits, then their Facebook contacts followed by their rating for their Offline social contacts (this could also include members that might also be on their Facebook contacts). In order to find out if respondents rated themselves

higher than their social contacts on Facebook, the rating they provided for each category for themselves was subtracted from the ratings they provide for their social contacts on Facebook. For example, if the respondent had rated “Independent” category as “5” for themselves and “3” for their social contacts on Facebook then “ $5-3 = 2$ ” was the difference which was considered as the self enhancement score for that participant for that particular category, i.e., they had rated themselves higher on that category. In this way all the individual category was calculated by using the Compute function in SPSS and an overall rating for each category was calculated at the end. The difference in the rating which resulted from this would was taken as the self enhancement score for that particular category. It is to be noted that for this study analysis was only conducted on the ratings respondents gave for themselves and their Facebook social contacts. The internal consistency suggests a high Cronbach alpha of .64 for the collectivism measuring items and moderate Cronbach alpha of .54 for the individualism measuring items. An overall mean score for the collectivist and individualist attributes were computed separately.

**4.2.3.5. Perceived Online Social Support Scale:** This scale was included to evaluate how often participants receive social support online. This was a validated scale and was adapted from Sherbourne & Stewart (1991). Respondents were asked “to think about the people they know on Facebook and were asked to rate how often they have received the type of social support listed in the scale on Facebook”. The items were coded using the Five point Likert scale ranging from “None of the time” to “All of the time”. For this study “None of the time” was coded as 1, “A little of the time” was coded as 2, “Some of the time” was coded as 3, “Most of the time” was coded as 4 and “All of the time” was coded as 5. The MOS scale was divided into three sub scales, i.e., emotional/ informational support, tangible support, affectionate support, positive social interaction and an additional item. However, for this study only items that were relevant to the online world were used from the social support scale. For example, one of the item under the Tangible sub scale was “Someone to help you if you were confined to a bed” and “Someone to help you with your daily chores if you were sick” are some of the examples of items that did not fit in with this particular study as it might not be relevant in an online environment. Therefore, items that did not fit in with the study was excluded for our study. Internal consistency of the items was very high with a Cronbach alpha of .96 which confirms that the items measures the same construct. An overall mean score of the ratings was computed for the scale.

**4.2.3.6. Online Trust Scale:** This scale measured the level of trust that participant had for their social contacts on Facebook and was adapted from past validated scale used by Krasnova et al. (2010). The items were coded using five point Likert scale ranging from “Strongly Disagree” to “Strongly Agree”. For this study “Strongly Disagree” was coded as 1, “Disagree” was coded as 2, “Neither agree or disagree” was coded as 3, “Agree” was coded as 4 and “Strongly Agree” was coded as 5. The items in the scale were a) Do their best to help me, b) Do care about the wellbeing of others, c) Are open and receptive to the needs of each other, d) Are honest in dealing with each other, e) Keep their promises and f) Are trustworthy. The internal consistency of the items was high and had a Cronbach alpha of .88. An overall mean score for the scale was computed as well.

**4.2.3.7. Online Privacy Concern Scale:** This scale was developed to check the level of privacy concern on Facebook among the participants after thorough discussion in a focus group of three members who were also researchers in the University in UK. The items were designed to fit in with the current study and care was taken to come up with items that measured the construct. The scale had seven items in total (five positively worded and two negatively worded items). The items were presented in the survey in a counterbalanced way in order to enhance participant engagement. Respondents were asked to give their rating on a five point Likert scale ranging from “Strongly Disagree” coded as “1” to “Strongly Agree” coded as “5” where “1” was the lowest rating and “5” was the highest rating. One of the negative item “I don’t care who looks on my Facebook profile” was removed and scale reliability increased from .57 to .70. The final set of items consisted of 5 positively worded items and 1 negative item that was reversed scored. An overall mean score was computed for this scale too.

The below section will discuss the results and the analysis followed by a brief summary. This will then follow with a section which highlights the various amendments made after Study 1 and then will discuss Study 2. Finally, an overall summary of the findings will be presented.

## **4.3. Results and Analysis**

This section attempts to evaluate the relationship between the independent variable (IV) cultural orientation and dependent variables (DV) which are (online group identity, online self-enhancement, perceived online social support, online trust and online privacy). It aims to evaluate

to what extent use of Facebook (through frequency and type of activities) has an influence on the DVs.. The section is divided into seven sections. The first section will look at sample distribution through descriptive statistics. The next section is aimed at evaluating the relationships of the variables through bivariate correlations, multivariate relationships using SPSS version 22 and mediation analysis using statistical technique called Process and then the models are constructed and tested using Structural Equation Modelling (SEM) using AMOS where the theoretical validity of relationships of the variables are tested. SEM is used to test the relationship between the hypothesized model and the observed data. Model fit is attained in AMOS which helps to support the findings. Section five looks at the limitations of the models and proposes plans for future analyses.

#### **4.3.1. Descriptive statistics**

Descriptive statistics is first used to test individual variable through frequency distribution and explore options in SPSS which checks whether further in depth analysis should be carried out. Frequency tables first explores the number of respondents in the data, their frequency counts. The explore option looks at the missing data and outliers and also looks at the kurtosis and skewness of the data.

#### **4.3.2. Data screening and preliminary analysis**

Data was analysed using SPSS version 22. The threshold for significance was set to  $\alpha = 0.05$  for all decisions. Prior to in depth analysis data was first screened to check for missing data and outliers. Boxplots and subsequent checks revealed the presence of some outliers and missing data. All outliers and missing data were replaced with the mean for the variables. The assumptions of normality were also checked if there was any presence of skewness or kurtosis in the data. Normality of the data was accepted if the distribution of the data, i.e., both skewness and kurtosis was within range ( $z < 2.58$ ) (Hair et al., 2006).

#### **4.3.3. Sample characteristics**

Table 4.1. Demonstrates the characteristics of the participants. The overall mean of the UK respondents was 20.51 (SD = 5.02) and the age range were between 18 to 47 years. The mean age of the Indonesian respondents was 20.54 (SD = 2.37) years. The age range for the Indonesian respondents were 17 to 27 years. The age range for the UK respondents were more varied than the Indonesian sample (see Table 4.1) however overall sample consisted of more than 90 percent of student population (full time and part time students included) and more than 80 percent in the Indonesian sample (see Table .42). The highest number of respondents were from the population from 18 – 21 years of range for the Indonesian sample and between 18 – 20 years' age range in the UK sample.

Table 4.1.

*Demonstrates the descriptive for both UK and Indonesian sample*

Variable	Mean (SD)/ Frequency	Range/ Percentage
<b>Overall (N= 150)</b>		
<b>Age (years):</b>		
UK	20.51 (5.02)	18 - 47
Indonesia	20.54 (2.37)	17 - 27
<b>Gender:</b>		
UK	1.77 (.43)	-
Indonesia	1.65 (.48)	-
<b>Country: UK: N = 47; Indonesia: N = 103)</b>		
<b>Gender:</b>		
UK : Male	11	23.4
: Female	36	76.6

Indonesia : Male	36	35.0
: Female	67	65.0

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*Note: Overall represents both UK and Indonesia combined*

Table 4.2.

*Demonstrates Ethnicity and Work characteristics in UK and Indonesia*

Variable	Mean (SD)/	Frequency	Percentage
<b>Overall (N= 150)</b>			
<b>Ethnicity:</b>			
UK		47	
Indonesia		103	
<b>Work:</b>			
UK: (N = 47)			
Employed (full time)		-	-
Employed (part time)		3	6.4
Unemployed		-	-
Student (part time)		-	-
Student (full time)		44	93.6
Indonesia: (N = 223)			
Employed (full time)		4	3.9

Employed (part time)	2	1.9
Unemployed	6	5.8
Student (part time)	6	5.8
Student (full time)	85	82.5

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*Note: Overall represents both UK and Indonesia combined*

Table 4.3. Below demonstrates mean use of Facebook (in hours) during the weekdays and weekend. The data demonstrates that Facebook is mostly used for socializing in both UK (weekday  $M = 3.11$  and weekend  $M = 2.49$ ) and in Indonesia (weekday  $M = .62$  and weekend  $M = .86$ ). An independent sample t-test revealed that there was a significant difference between countries when participants used Facebook for ‘study during weekday in UK ( $M = 1.54$ ,  $SD = 5.07$ ) and in Indonesia ( $M = .26$ ,  $SD = .46$ ),  $t(148) = 2.93$ ,  $p = .004$ , suggesting that participants in the UK used Facebook for study purpose more than Indonesian participants in the weekday. However no significant difference was found for Facebook use during the weekend ( $M = .72$ ,  $SD = 2.18$ ),  $t(148) = -1.05$ ,  $p > 0.05$ . There was also a significant difference found between use of Facebook for social purpose during the weekday by participants in the UK ( $M = 3.11$ ;  $SD = 5.94$ ) than participants in Indonesia ( $M = .62$ ;  $SD = .90$ ),  $t(148) = 6.24$ ,  $p = .001$  and also during the weekend (UK:  $M = 2.49$ ;  $2.86$ ) and (Indonesia:  $M = .86$ ;  $SD = 1.89$ ),  $t(148) = 5.19$ ,  $p = .001$ . There was also a significantly higher use of Facebook for mixed purposes (which included study, work and social) during the weekday by participants in the UK ( $M = 2.53$ ;  $SD = 6.05$ ) than by the participants in Indonesia ( $M = .79$ ;  $SD = 1.30$ ),  $t(148) = 2.54$ ,  $p = .012$ . Whereas for all the other categories the differences in Facebook was non-significant. This overall suggest that participants in the UK use FB more than participants in Indonesia and both countries seem to be using FB more during the weekdays and mostly for social purposes.

Table 4.3:

*Demonstrates FB use per weekday & per weekend in UK & Indonesia (in hours)*

UK (N = 47)					Indonesia (N = 103)			
Weekday	Study	Work	Social	Mixed	Study	Work	Social	Mixed
Mean	1.54	.32	3.11	2.53	.36	.26	.62	.79
SD	5.07	.73	5.94	6.05	.56	.46	.90	1.30
Weekend	Study	Work	Social	Mixed	Study	Work	Social	Mixed
Mean	.72	.32	2.49	2.00	.57	.28	.86	.97
SD	2.18	.98	2.86	5.64	.96	.49	1.19	1.57

*Note: FB = Facebook*

A t-test conducted further suggests that there was a significant difference in the number of days members used FB between the two countries ( $M = 12.47$ ;  $SD = 2.84$ ) and Indonesia ( $M = 6.14$ ;  $SD = 4.58$ ),  $t(148) = 8.73$ ,  $p = .001$ ) suggesting that participants in the UK tends to use Facebook more than Indonesian participants. However there no significant difference found between the countries on the number of hours they invested on Facebook (UK:  $M = 2.77$ ;  $SD = 8.05$ ; Indonesia:  $M = 3.63$ ;  $SD = 7.49$ ),  $t(148) = -.643$ ,  $p > 0.05$ ). Table 4.4. below illustrates that on average UK participants spend at least 4 days out of the 14 days on Facebook whereas the Indonesian sample seem to suggest that there can be occasion where they don't use Facebook at all. This suggests that the use of SNS like Facebook is more popular among the UK participants than the Indonesian participants.



Table 4.4.

*Illustrates Frequency of Facebook use among UK & Indonesian sample*

	UK	Indonesia	Overall
	(N = 47)	(N = 103)	(N = 150)
<b>Number of Days Facebook used in the last 14 days</b>			
Mean	12.47	6.14	8.12
SD	2.84	4.58	5.05
Minimum	4	0	0
Maximum	14	14	14
<b>Average time (hours) spent on Facebook in the last 14 days</b>			
Mean	2.77	3.63	3.36
SD	8.05	7.49	7.65
Minimum	1	0	0
Maximum	56	56	56

Scale reliability of the items was also measured. While the majority of the items had good to high scale reliability, the scale measuring the cultural orientation of the participants had a medium scale reliability (see Table 4.5.). However, the low scale reliability could be attributed to the small sample size of the study. Apart from the privacy scale which still achieved a moderate scale

reliability (Cronbach alpha = .61), all the other scales had been validated in past research studies, hence it was decided to continue the data collection using the below scales.

Table 4.5.

*Reliability scores of the variables used in the Survey*

Variable	Cronbach alpha [ $\alpha$ ]	Mean	SD	Number of items
1) Facebook activity	.88	33.59	8.89	14
2) Social Support	.96	30.45	9.78	10
3) Trust	.88	19.45	3.82	6
4) Privacy	.61	18.83	3.34	6
5) Group Identity	.75	19.29	2.87	6
6) Self enhancement				
a) <i>Individualism categories</i>	.70	23.70	3.81	7
b) <i>Collectivism categories</i>	.56	25.43	3.42	7
7) Cultural Orientation				
a) <i>Individualism</i>	.54	29.35	3.03	8
b) <i>Collectivism</i>	.61	28.51	3.16	8

A Pearson's bivariate correlation was conducted using SPSS to check the relationship between the items for each construct as it would help to decide if further analysis should be carried out (see Table 4.6) suggesting that there was a significant positive correlation between online trust and online privacy ( $r = .161$ ,  $n = 150$ ,  $p < 0.05$ ) suggesting that as members increase their level of trust

online their level of privacy concern also seems to increase. There was also a significant positive correlation found between online trust and group identity ( $r = .302$ ,  $n = 150$ ,  $p < 0.01$ ) suggesting that as the level of trust increases on Facebook, identification with their group members also increases. There was a significant negative correlation between self enhancement and online trust ( $r = -.209$ ,  $n = 150$ ,  $p < 0.05$ ). There was a significant positive correlation found between social support received online and online privacy concern ( $r = .256$ ,  $n = 150$ ,  $p < 0.01$ ) suggesting that increase in online privacy helps to increase online social support. There was also a significant positive correlation found between Facebook activity and group identity ( $r = .209$ ,  $n = 150$ ,  $p < 0.01$ ) and also a significant positive correlation between Facebook activity and online social support ( $r = .161$ ,  $n = 150$ ,  $p < 0.05$ ) suggesting that increase in Facebook activity helps to increase group identity and also help to receive online social support. There was a significant positive correlation found between country difference and group identity ( $r = .219$ ,  $n = 150$ ,  $p < 0.01$ ); a significant negative correlation between country difference between country difference and self enhancement ( $r = -.253$ ,  $n = 150$ ,  $p < 0.01$ ), social support ( $r = -.489$ ,  $n = 150$ ,  $p < 0.01$ ) and Facebook activity ( $r = -.432$ ,  $n = 150$ ,  $p < 0.01$ ). Indonesia was coded as 2 and UK was coded as 1. Country was coded as (UK = 1 and Indonesia = 2), therefore the results suggest that increase in country, would increase identification with their social group. Indonesian social groups are mostly made of contacts that they might share an offline relationship; therefore they might be connected to their group members more than their UK counterparts. Increase in country code decreased self enhancement, social support one receives online and Facebook activities. Therefore, in accordance with the coding in the study, the results could be interpreted as Indonesian sample might be reluctant to seek social support for the fear of being identified among their offline social group and thus fail to self-enhance. The decrease in Facebook activity could also be related to the availability of Facebook usage due to their commitments and societal restrictions.

There was a significant negative correlation found between age and social support ( $r = -.256$ ,  $n = 150$ ,  $p < 0.01$ ) and cultural orientation ( $r = -.187$ ,  $n = 150$ ,  $p < 0.05$ ). For this study individualism was coded as 1 and collectivism was coded as 2. This suggest that as age increases social support decreases. This could be explained that with age members might develop established social contacts offline from who they prefer to receive social support than from members who are online. Additional the data also suggests that increase in age seems to decrease the cultural traits online as members might become more accustomed to the norms and behaviours members follow on

Facebook. There was also a significant positive correlation between gender and online social support ( $r = .164$ ,  $n = 150$ ,  $p < 0.05$ ). For this study male was coded as 1 and female was coded as 2, therefore suggesting that female seem to receive more social support online than male participants. It could be argued that female participants are more open in discussing their concerns than male participants.

Table 4.6.

*Illustrates correlations between variables (unstandardized items)*

	Privacy	ID	Trust	SE	SS	CO	Activity	Country	Age	Gender
Privacy	1									
ID	-.002	1								
Trust	.161*	.302**	1							
SE	-.019	-.103	-.209*	1						
SS	.256**	-.058	.067	.157	1					
CO	.029	.043	.074	.054	.133	1				
Activity	.096	.209*	.074	.119	.357**	.088	1			
Country	.078	.219**	.160	-.253**	-.489**	-.028	-.432**	1		
Age	-.107	-.128	-.100	.053	-.256**	-.187*	-.158	.005	1	
Gender	.086	-.058	-.018	.111	.164*	-.096	.009	-.115	-.012	1

*Note: ID = group identity; SE = self-enhancement; SS = social support; CO = cultural orientation*

*\* $p < 0.05$  (two tailed); \*\* $p < 0.01$  (two tailed)*

Indonesian participants identified with their group members online ( $M = .15$ ) more than the UK participants ( $M = -.32$ ). The mean difference between the samples was  $-.470$  and the 95%

confidence interval for the estimated population mean difference was between -.810 and -.129. The effect size was large ( $d = .45$ ). An independent sample t-test showed that the difference between the sample was significant ( $t = -2.726$ ,  $df = 148$ ,  $p = .007$ , two tailed).

A t-test was conducted to check the differences in the samples on the variables used. The results suggest that for the self enhancement scale UK participants seemed to self-enhance more ( $M = .37$ ) on when they are on Facebook than Indonesian participants ( $M = -.17$ ). The mean difference between the samples was .543 and the 95% confidence interval for the estimated population mean difference was between .234 and .851. The effect size was large ( $d = .58$ ). An independent sample t-test showed that the difference between the sample was significant ( $t = 3.486$ ,  $df = 148$ ,  $p = .001$ , two tailed).

Indonesian participants trust their social group more ( $M = .11$ ) than the UK participants ( $M = -.24$ ). The mean difference between the samples was -.343 and the 95% confidence interval for the estimated population mean difference was between -.687 and .002. The effect size was large ( $d = .34$ ). An independent sample t-test showed that the difference between the sample was significant ( $t = -1.967$ ,  $df = 148$ ,  $p = .05$ , two tailed).

UK participants received more social support ( $M = .72$ ) when they are online than the Indonesian sample ( $M = -.33$ ). The mean difference between the samples was 1.051 and the 95% confidence interval for the estimated population mean difference was between .746 and 1.355. The effect size was large ( $d = 1.142$ ). An independent sample t-test showed that the difference between the sample was significant ( $t = 6.818$ ,  $df = 148$ ,  $p = .001$ , two tailed).

UK participants used Facebook more ( $M = .64$ ) than the Indonesian participants ( $M = -.29$ ). The mean difference between the samples was .929 and the 95% confidence interval for the estimated population mean difference was between .615 and 1.244. The effect size was large ( $d = 1.035$ ). An independent sample t-test showed that the difference between the sample was significant ( $t = 5.835$ ,  $df = 148$ ,  $p = .001$ , two tailed).

The difference in means between the UK and Indonesian samples was not significant for online privacy concern (UK:  $M = -.11$ ; Indonesian:  $M = .05$ ),  $t = -.817$ ,  $df = 148$ ,  $p > 0.05$ ) and for measures of cultural orientation (UK:  $M = .04$ ; Indonesia:  $M = -.02$ ,  $t = .279$ ,  $df = 148$ ,  $p > 0.05$ ).

Although differences in the two countries were established in the various psychological variables used which suggest that there exists correlation between the constructs (see Table 4.6), however it was important to find out how members scored on each of the psychological construct based on the scores on the other remaining constructs. As the study involves human participants, being able to single out each predictor variable was impossible as the impact of the constructs co-existed. Unlike bivariate correlation which did not help to evaluate the causal relationship of variables, multiple regression allowed the use of several predictor variables (IVs) which together allow to estimate a participant's likely score on a criterion variable (DV) (see Brace, Kemp, Snelgar R., 2009). It was for this reason that multiple regression was used as an additional step to understand participant scores on each psychological variable. Furthermore, as this was a cross-cultural study the data collected was based on same measuring scales as such analysing both countries in one data set was required as it would allow to evaluate country differences. By being able to predict Facebook activities helped to check for correlations relevant to the theory.

In order to check the impact of culture on each psychological variable a multiple regression analysis using the 'Enter' method was used to test if all the factors in the study for online group identity, online self-enhancement, perceived online social support, online trust and online privacy. All the assumptions for regression analysis were including multi-collinearity between IV and DVs which were met. The interaction effect by country was also evaluated for each psychological variable used. For example, country x online group identity, country x self-enhancement, country x perceived online social support, country x trust and country x online privacy concern. The results indicated that the overall model explained 15% of the variance ( $R^2 = .23$ ,  $F(12,137) = 2.90$ ,  $p = .01$ ). It was found that only online self-enhancement predicted Facebook activities ( $\beta = .86$ ,  $p = .013$ ) and there was also a significant negative interaction between country x self-enhancement ( $\beta = -.43$ ,  $p = .024$ ). Age and gender was also used as predictors in the model as control variables. As it was a cross-cultural design the impact of differences in countries used was also evaluated through interactions. The results suggest that there was a significant negative interaction between country and self-enhancement ( $\beta = -.77$ ,  $p = .02$ ) (see Table 4.7 for full information).

Table 4.7.

*Illustrating the Standardized Regression Coefficients predicting Facebook Activities*

	<b>B</b>	<b>SE</b>	<b>β</b>
<b>Self enhancement</b>	.86	.34	.86*
<b>Privacy</b>	-.14	.25	-.14
<b>Group Identity</b>	.34	.27	.34
<b>Trust</b>	-.13	.28	-.13
<b>Social support</b>	.20	.30	.20
<b>Cultural orientation</b>	.23	.24	.23
<b>Country x self-enhancement</b>	-.43	.19	-.77*
<b>Country x privacy</b>	.10	.17	.15
<b>Country x group identity</b>	-.05	.16	-.08
<b>Country x trust</b>	.06	.17	.10
<b>Country x social support</b>	.07	.19	.12
<b>Country x cultural orientation</b>	-.14	.16	-.21
<b>Gender</b>	-.07	.17	-.03
<b>Age</b>	-.01	.02	-.04
<b>Adjusted R<sup>2</sup></b>		.15	
<b>F</b>		2.89	

*Note: \*p<.05*

#### 4.3.4. Analysis

Study 1 was a survey that checked differences in Facebook responses. The results indicated that there exists difference in the time participants invest when they interact on social media which is influenced by country difference. However, both countries seem to use Facebook mainly for social

purposes which was expected. The results also indicated that participants in the UK engaged in communicating through SNS more than Indonesian sample further suggesting the importance of country difference. However, this might also be influenced by other factors such as availability of the internet, social restrictions or even economical situations. Use of Facebook is seen to be helping in positive self enhancement such that increase in Facebook activity increases feeling of self-enhancement in both cultures however such effect cannot be discussed on its own as the results also highlighted the influence of country difference. Increase in age seemed to decrease social support online. This could be because with age members establish social network offline from whom they prefer seeking social support as they might develop a more trusting relationship and thus refrain from seeking social support online. The results also indicated that female participants received more social support than their male counterparts suggest that being a part of the online network helps to develop more opportunity for accessing social support for its members. However, it could be argued that this result could be influenced by the higher number of female participants. The findings achieved in this study will be explored further in Study 2.

#### **4.4. Brief summary of Study 1**

The main aim of Study 1 was to evaluate the cultural influence on the psychological variables that has been used in the study. The results overall suggest that there exist differences in behaviour between members from UK and Indonesia influenced by the differences in countries members came from. Clearly online self-enhancement is seen to be influenced due to country differences. While the other psychological variables failed to show any significant differences, it could be due to sample size. Therefore, this certainly laid the foundation to acknowledge that there exist differences in behaviour in an online environment. Therefore, in order to evaluate differences in behaviour due to cultural orientation, a further study with a representable sample size and an amended version of the survey needed to be designed. The below section will discuss the various changes that were made in the survey which helped to define Study 2. Although these changes were not part of the initial planning process, however as Study 1 failed to see distinct effect of culture on the psychological variables, it was decided to design a further refined Study which was done with the help of the feedback received from the participants in both countries.



## **4.5. Changes made after completion of Study 1**

After completion of the survey in UK and Indonesia, all the feedback received were read and every attempt was made to make sure that the feedback given by the participants was used to develop a more refined version of the survey. All the feedback was exported from the Bristol Online Survey (BOS) website into Microsoft Excel and was checked, after which amendments were made. While the general feedback was that the survey was easy to follow, there were quite a few comments on the instructions provided in the survey. For example, 'Be more specific', 'Instructions may be clearer', 'the form confused me' and 'too many questions'. Informal chats with participants after their participation also suggested that they required clearer instructions. Although there was not a major change in the design of the survey however care was taken that all feedback received was taken into consideration. In accordance with the feedback received the instructions on the tasks were made clearer and were supported with example, e.g., for the Facebook use scale where participants had to give an estimate of the time spent on Facebook per day during the week and over the weekend in minutes, it was supported by example "1 hour = 60 minutes, so if you spend on average 1 hour on Facebook during the day, your response should be 60". Additionally, there was some confusion on the difference between offline and online contacts. Participants were given full description, e.g., "online social contacts are members of your social network that you interact with online, i.e., on Facebook" and "offline social contacts are members of your social contacts that you interact with face-to-face". Questions where participants were asked to enter the average time spent on FB, they were clearly informed that they should report average Facebook use in Hours or minutes as required.

Additionally, while it was seen that the scale reliability of some of the items like the cultural self-construal scale only achieved a medium scale reliability it was decided that all the twenty-four items would now be included in the study as the reduced version might have affected the scale reliability score. It was also decided that the individual self-construal items and the collectivism measuring items would be kept as separate individual scales. Additional to this the items in the self enhancement scale which measured the collectivist self attributes had a moderate scale reliability (Cronbach alpha = .56), however for the items that measured the individualism measuring attributes was high (Cronbach alpha = .70). It could be argued that the difference in the values could be due to the small sample size, hence it was decided to be used in the final survey

as the items had been validated in past research (Gaertner et al., 2008). The attributes were further validated in the pilot study conducted by Sedikides et al, 2003). After the amendments were confirmed the final version of the survey was developed on BOS website and distributed in UK and in Indonesia. The below section will now discuss the results and analysis of the final survey.

## Chapter Five

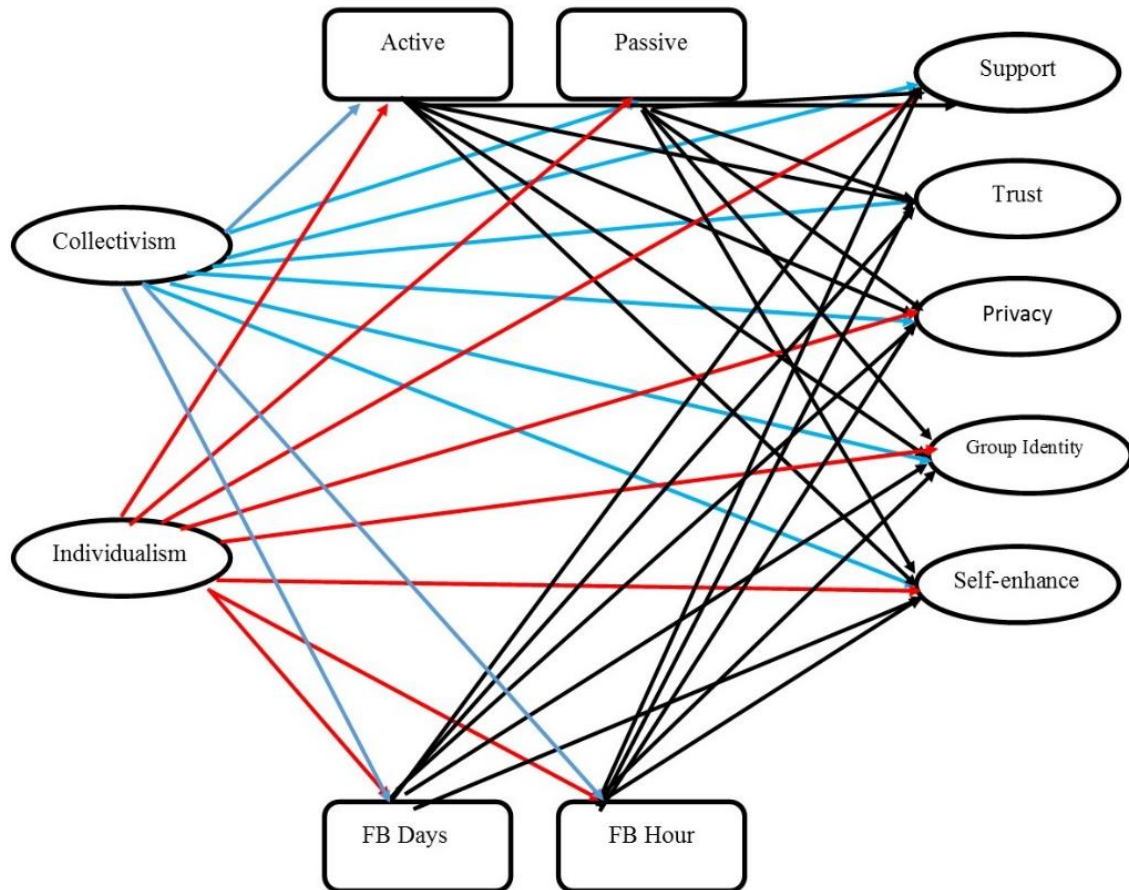
### Study 2: Survey (*Facebook Responses*)

#### 5.1. Rationale for this study

To get valid and reliable responses from the UK and Indonesian sample, the amended version of the survey was circulated with an aim to evaluate the impact of culture on various psychological variables like online social support, online trust, online privacy, self enhancement and group identity. Figure 5.1. illustrates the operational theoretical model which will be evaluated in the below paragraphs based on the responses received from the participants in UK and Indonesia. The model illustrates the various ways how the psychological variables (support, trust, privacy, group identity and self-enhancement) are affected by differences in cultural selves (individualism or collectivism) that is mediated by the Facebook activities (Active: when members actively interact with their social network on Facebook; Passive: when members interact passively with their social network on Facebook) and Facebook frequency (FB Days: number of days members use Facebook; FB HR: number of hours members use Facebook).

Figure 5.1.

Operational Theoretical Model showing all the variables and mediators



Note:

FB represents Facebook

FB Day, FB Active, Active and Passive are the mediators

FB Days represents number of days members used Facebook in the last 14 days

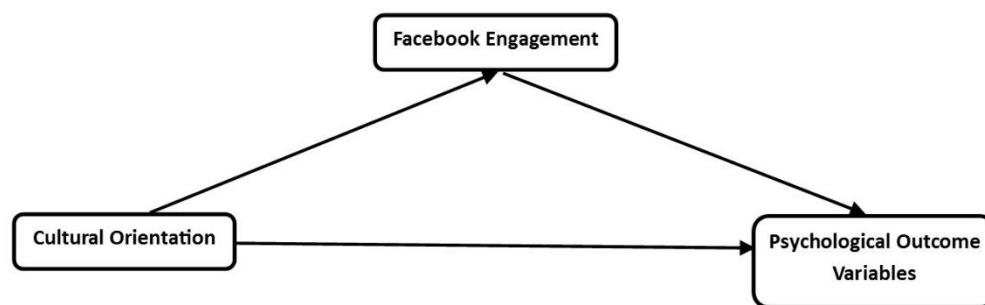
FB Time represents how many hours members have been on Facebook in the last twenty four hours

Active and Passive are the two different categories of Facebook interaction

To enhance understanding of the relationship between the variables another model (see Figure 5.2) below is illustrated that is used in all the four studies.

*Figure 5.2.*

Demonstrates the Basic Model that illustrates the relationship between Cultural Orientation, Facebook Engagement and Psychological Outcome Variables



*Note:*

*Facebook Engagement represents Facebook activities (Active and Passive), hours of Facebook use (FBHR) and days of Facebook use (FB Days)*

*Psychological Outcome Variables consists of Online Group Identity, Online Self-enhancement, Perceived Online Social Support, Online Trust and Online Privacy Concern*

## 5.2. Method

### 5.2.1. Participants

A total of 432 (UK: N = 209; 76.6 per cent female; Indonesia: N = 223) participants; more than 90 percent in Indonesia and more than 70 percent female in the UK participated in a survey and were all Facebook users. The mean age of the participants was UK: 22.32 years (SD = 8.12) and Indonesia: 19.34 years (SD = 1.16) with more than 80 per cent of the respondents falling in the range from 18 to 21 years.

### 5.2.2. Procedure

Study 2, which was the refined version of Study 1 was developed online on the Bristol Online Survey (BOS) website and was administered across university students in UK through the University's online system. The survey was also advertised on Facebook and Twitter. For the Indonesian sample, an Indonesian research assistant was recruited who was fluent in both English and their native language who helped to circulate the paper version of the survey to the University students in Indonesia and then inputted the responses online on the BOS in English. Another research assistant was recruited to monitor the data input process in order to avoid any mistakes.

While UK participants received the English version of the survey, the Indonesian participants were given the translated version. The survey lasted for approximately 15-20 minutes. Full participant consent was attained and participants were also made aware of their rights before their participation in the survey. Participants were also given the chance to enter in a lottery draw to win gift voucher as a thank you for their participation which was completely voluntary.

### 5.2.3. Materials & Item description

The survey consisted of several validated scales that was used to meet the research aim, which will be discussed in the below paragraphs.

**5.2.3.1. Cultural Self-Construal Scale:** The items in this scale was a validated scale and was adapted from Singelis (1994). Instead of the reduced version of the scale all the twenty-four items in the scale was used for the study (12 items measuring collectivism self-construal and 12 items measuring individualism self-construal). The internal consistency of the items was high for the sub scale that measured the interdependent traits and had a Cronbach alpha of .80 (Facebook contacts) and .76 (Overall social contacts). The internal consistency for independent traits measuring items were moderate and had a Cronbach alpha of .62 (Facebook contacts) and .67 (Overall social contacts), however as they were validated scales, it was decided to use in the study further.

**5.2.3.2. Online Facebook Activity Scale:** This was kept the same as Study 1. The scale used in the survey was a validated scale adapted from Junco (2012), which had a high scale reliability (Cronbach alpha = .89). The original scale adapted had 14 items in total which included items that measured different aspects of Facebook activities. For this study the activities were divided into

two sub scales. Active interaction (which involved respondents to interact with other members on Facebook actively) and Passive interaction (where members could use and monitor other members and did not require the interaction with other members). Under the Active participation sub scale – items included were a) Private messages, b) Commenting and c) Facebook chat which had a high internal consistency (Cronbach alpha = .80). The Passive interaction sub-scale included items like a) Playing games, b) Status Updates, c) Sharing Links, d) Checking up, e) Events, f) Posting photos, g) Tagging photos, h) Viewing photos, i) Posting videos, j) Tagging videos and k) Viewing Videos and also had a high internal consistency (Cronbach alpha = .85).

**5.2.3.3. Online Group Identification Scale:** The group identification scale looked at how much respondents identified with their social group on Facebook was a validated scale and was adapted from Brown et al. (1986) and was kept the same as was in the pilot study. The internal consistency of the amended version of the six items in the group identification scale was high (Cronbach alpha = .80) suggesting that the items measured the same construct.

**5.2.3.4. Online Self-Enhancement Scale:** This scale was designed as an attempt to show that self enhancement does exist in both Western and Eastern culture. This in support with past studies by (Gaertner et al., 2008; Sedikides et al., 2003). The scales have been validated by Gaertner et al. (2008) and for this study a similar method was employed to check the existence of self enhancement in the online world. Respondents were asked to provide their truthful responses on a six point Likert scale ranging from 0 (lowest score) to 5 (highest score). The higher the rating the higher they score on that particular attribute. Participants were first asked to rate themselves on the cultural traits, then their Facebook contacts followed by their rating for their Offline social contacts (this could also include members that might also be on their Facebook contacts). In order to find out if respondents rated themselves higher than their social contacts on Facebook, the rating they provided for each category for themselves was subtracted from the ratings they provide for their social contacts on Facebook. For example, if the respondent has rated on “Independent” category as “5” for themselves and “3” for their social contacts on Facebook then “ $5-3 = 2$ ” was the difference that they had rated themselves, i.e., they had rated themselves higher on that category. In this way, all the individual category was calculated by using the Compute function in SPSS and an overall rating for each category was calculated at the end. This was the rating that they gave themselves in each category, which will help to check if they self-enhanced on each cultural

category based on their cultural orientation. It is to be noted that for this study analysis was only conducted on the ratings respondents gave for themselves and their Facebook social contacts. The internal consistency suggests a high Cronbach alpha of .71 for the collectivism measuring items and moderate Cronbach alpha of .66 for the individualism measuring items (see Table 5.1 below).

**5.2.3.5. Perceived Online Social Support Scale:** This scale measured the social support and was kept the same as was in Study 1. The items had been adapted from the validated MOS Social Support Survey (Shelbourne & Stewart, 1991). Internal consistency of the items was very high with a Cronbach alpha of .95 which confirms that the items measured the same construct.

**5.2.3.6. Online Trust scale:** This measured trust among members and was kept the same as Study 1. The items were adapted from the validated scale used by Krasnova et al. (2010). The internal consistency of the items was high and had a Cronbach alpha of .88 (see Table 6 for further information).

**5.2.3.7. Online Privacy Concern Scale:** This scale was developed to check the level of privacy concern on Facebook among the respondents. This scale was developed after with discussion with a focus group of three. The items were designed to fit in with the current study and would measure the construct. The scale had seven items in total (six positively worded and two negatively worded items) and was kept the same that was used in Study 1. The items were arranged so that respondents have a mixture of positively worded and negatively worded items which will enforce some cognitive understanding of the items and would avoid false responses. Respondents were asked to give their truthful responses on the items which ranged from “Strongly Disagree” to “Strongly Agree”. The items were coded using five point Likert scale ranging from “Strongly Disagree” to “Strongly Agree”. For this study “Strongly Disagree” was coded as 1, “Disagree” was coded as 2, “Neither agree or disagree” was coded as 3, “Agree” was coded as 4 and “Strongly Agree” was coded as 5. The negative items were reversed scored using the compute into a different variable in SPSS. The internal consistency of the items was low with a Cronbach alpha of .43. Both negative items “I don’t care who looks on my Facebook profile” and “I get worried about people being able to look on my personal profile on Facebook” were removed which increased the internal consistency to Cronbach alpha of .70. Therefore, the final five items were retained for further analysis (see Appendix 2 for a full list of items).



Table 5.1.

*Reliability scores of the variables used in Study 2*

Variable	Cronbach alpha [ $\alpha$ ]	Mean	SD	Number of items
1) Facebook activity				
a) <i>Active</i>	.80	9.06	3.08	3
b) <i>Passive</i>	.85	26.21	7.37	11
2) Social Support	.95	30.62	9.70	10
3) Trust	.88	18.69	4.13	6
4) Privacy	.70	15.20	3.42	5
5) Group Identity	.80	19.50	3.23	6
6) Self enhancement				
a) <i>Individualism categories</i>	.66	23.13	4.45	7
b) <i>Collectivism categories</i>	.71	25.98	4.42	7
7) Cultural Orientation				
a) <i>Individualism</i>	.67	42.22	5.20	12
b) <i>Collectivism</i>	.76	43.50	5.50	12

### 5.3. Results

This section will discuss the findings to understand the relationship between the predictors (Individualism and Collectivism), mediators (active, passive, hours spent on Facebook in the last 24 hours (FB HR), number of days spent on Facebook in the last 14 days (FB Days)) and the outcome variables (online group identity, online self-enhancement, perceived online social

support, online trust and online privacy concern). In short, the Operational model (Figure 5.1) is explored individually and analysed (using the Basic Model – see Figure 5.2). This chapter is divided into several sections. The first section will look at sample distribution through descriptive statistics. The next section looks at the relationships of the variables through bivariate correlations followed by a section on multivariate relationships where the various constructs are checked whether they loaded on the same constructs using Maximum Likelihood Estimation (ML) using SPSS version 22. The next section looks at the data which checks the mediation by using statistical technique called Process and then the models are constructed and tested using Structural Equation Modelling (SEM) using AMOS where the theoretical validity of relationships of the variables are tested. SEM is used to test the relationship between the hypothesized model and the observed data. Model fit is attained in AMOS which helps to support the findings. The final section is the conclusion which outlines the limitations of the models and proposes plans for future analyses.

### **5.3.1. Descriptive statistics**

Descriptive statistics is first used to test individual variable through frequency distribution and explore options in SPSS which checks whether further in depth analysis should be carried out. Frequency tables first explores the number of respondents in the data, their frequency counts. The explore option looks at the missing data and outliers and looks at the kurtosis and skewness of the data.

### **5.3.2. Data screening and preliminary analysis**

Data was analysed using SPSS version 22. The threshold for significance was set to  $\alpha = 0.05$  for all decisions. Prior to in depth analysis data was first screened to check for missing data and outliers. Boxplots and subsequent checks revealed the presence of some outliers and missing data. All outliers and missing data were replaced with the mean for the variables. The assumptions of normality were also checked if there was any presence of skewness or kurtosis in the data. Normality of the data was accepted if the distribution of the data, i.e., both skewness and kurtosis was within range ( $z < 2.58$ ), (Hair et al., 2006).

### 5.3.3. Sample characteristics

Table 5.2 demonstrates the characteristics of the participants. The overall mean age of the UK respondents was 22.32 (SD = 8.12) years and the age range were between 18 to 50 years. The mean age of the Indonesian respondents was 19.34 (SD = 1.16) years. The age range for the Indonesian respondents were 17 to 23 years. The age range for the UK respondents were more varied than the Indonesian sample however overall sample consisted of more than 90 percent of student population (full time and part time students included). This is also demonstrated in Table 5.3 which shows the variation of work for the sample in both UK and Indonesian respondents. The highest number of respondents were from the population from 18 – 21 years of range which is also reflected in both Table 5.2 and Table 5.3. The sample also showed a greater number of participation from the female population in both UK and Indonesia.

Table 5.2.

*Illustrates Descriptive statistics of participants in Study 2*

Variable		Mean (SD)/ Frequency	Range/ Percentage
<b>Overall (N= 432)</b>			
<b>Age (years):</b>			
UK		22.32 (8.12)	18 – 50 (33)
Indonesia		19.34 (1.16)	17 -23 (6)
<b>Country: UK: N = 209; Indonesia: N = 223)</b>			
<b>Gender:</b>			
UK	: Male	18	8.6
	: Female	191	91.4

Indonesia : Male	66	29.6
: Female	157	70.4

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*Note: Overall represents both UK and Indonesia combined*

Table 5.3.

*Demonstrates Ethnicity and Work characteristics of participants in Study 2*

Variable	Frequency	Percentage
<b>Overall (N= 432)</b>		
<b>Ethnicity:</b>		
UK: British	209	
Indonesia: Indonesian	223	
<b>Work:</b>		
UK: (N = 209)		
Employed (full time)	11	5.3
Employed (part time)	11	5.3
Unemployed	7	3.3
Student (part time)	11	5.3
Student (full time)	169	80.9
Indonesia: (N = 223)		
Employed (full time)	1	.4

Employed (part time)	-	-
Unemployed	-	-
Student (part time)	3	1.3
Student (full time)	219	98.2

Table 5.4 below demonstrates the use of Facebook during the weekdays and weekend. The data demonstrates that UK respondents use Facebook far more than the Indonesian respondents and mostly use Facebook for social purpose (Weekday - Mean: 4.40; SD: 6.54) and (weekend – Mean: 4.89; SD: 14.13). Indonesian respondents also seem to use Facebook mostly for social purpose (Weekday - Mean: .67; SD: 1.75) and (weekend – Mean: .57; SD: 2.17). There seems to be a greater spread of Facebook use during the weekend for the UK sample (SD = 14.13). Similar time on Facebook is invested during the weekend in both UK and Indonesia. There seems to be high use of Facebook for work purpose among the Indonesian participants (Weekday - Mean: .44; SD: 3.28) and (weekend – Mean: .57; SD: 2.17) than the UK participants (Weekday - Mean: .23; SD: 6.54) and (weekend – Mean: .18 SD: .58).

Table 5.4.

*Demonstrates Facebook use during weekday and weekends in UK and Indonesia*

UK (N = 202)					Indonesia (N = 212)				
	Study	Work	Social	Mixed		Study	Work	Social	Mixed
<b>Weekday:</b>									
Mean	.76	.23	4.40	1.85		.48	.44	.67	1.02
SD	1.57	.65	6.54	2.69		.80	3.28	1.75	4.14
<b>Weekend:</b>									
Mean	.39	.18	4.89	1.79		.80	.57	1.03	1.27

SD	.79	.58	14.13	2.58		2.01	2.17	1.85	2.19
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Table 5.5 demonstrates the findings of the descriptive analysis of ‘the number of days and the number of hours’ respondents have used Facebook in the last fourteen days. The results suggest that UK respondents use at least 2 days in two weeks on Facebook unlike the Indonesian respondents who seem to suggest that they might not use Facebook every day. T-test conducted between the two countries revealed that there was a significant difference between UK (M = 12.96; SD = 2.63) and Indonesia (M = 6.89; SD = 3.89),  $t=18.83$ ,  $p < 0.001$ . The results further highlights that the participants in the UK spend more time on Facebook than the Indonesian sample. There was a significant difference in the number of hours’ participants used Facebook in UK (M = 4.31; SD = 2.43) and Indonesia (M = 1.46; SD = 1.02),  $t = 16.01$ ,  $p < 0.001$ ).

Table 5.5.

*Demonstrates Facebook use among UK and Indonesian respondents in Study 2*

	UK	Indonesia	Overall
<b>Number of Days Facebook used in the last 14 days</b>			
Mean	12.87	6.89	9.78
SD	2.43	3.90	4.43
Minimum	2	0	0
Maximum	14	14	14
N	209	223	432

**Average time (hours) spent on Facebook in the last  
14 days**

Mean	4.31	1.46	2.84
SD	2.43	1.02	1.53
Minimum	1	0	0
Maximum	13	8	13
N	209	223	432

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Indonesian participants have more social contacts on Facebook (UK:  $M = 25.83$ ;  $SD = 24.17$ ; Indonesia  $M = 47.45$ ;  $SD = 72.42$ ) and Offline (UK:  $23.85$ ;  $SD = .34$ ; Indonesia:  $M = 38.82$ ;  $SD = 72.31$ ) than UK participants but the Indonesian participants seemed to receive less social support online (UK:  $M = 3.42$ ;  $SD = .98$ ; Indonesia:  $M = 2.72$ ;  $SD = .83$ ). An independent sample t-test for the Facebook contacts and social support score showed that the difference between sample was significant both for number of social contacts ( $t = -4.08$ ,  $df = 424$ ,  $p < 0.05$ , two tailed and had a medium effect size was ( $d = 0.40$ ). The difference in the social support scores was also statistically significant ( $t = 8.04$ ,  $df = 430$ ,  $p < 0.05$ , two tailed and had a high effect size ( $d = 0.77$ ). This fails to support H2 as higher number of Facebook contacts did not suggest higher social support online.

Indonesian participants have higher number of social contacts Offline too similar to online than UK participants (UK:  $M = 23.85$ ;  $SD = .34$ ; Indonesia:  $M = 38.82$ ;  $SD = 72.31$ ) suggesting that the Indonesian have a wider group of social contacts both online and offline. A further analysis using an independent sample t-test between the mean total Facebook contacts and offline contacts between the two countries confirms that the difference between the two groups was statistically significant (Offline contacts:  $t = -2.70$ ,  $df = 423$ ,  $p < 0.05$ , two tailed and had a high effect size ( $d = 0.51$ ); Facebook contacts:  $t = -4.08$ ,  $df = 424$ ,  $p < 0.05$ , two tailed and had a medium effect size ( $d = 0.40$ ).

An independent sample t-test was run on the trust scores between UK and Indonesia which confirmed that the UK participants scored higher on the trust scale ( $M = 3.14$ ,  $SD = .69$ ) than the

Indonesian sample ( $M = 3.09$ ,  $SD = .69$ ) as predicted however the difference in scores was not statistically significant ( $t = .694$ ,  $df = 430$ ,  $p > 0.05$ , two tailed) thereby failed to support H5.

### 5.3.4. Investigating the relationship between variables

A Pearson's bivariate correlation was conducted using SPSS version 22 to check the relationship between the items for each construct and to check whether further analysis should be carried out (see Table 5.6.).

Table 5.6.

*Demonstrates inter-correlation of the variables in Study 2*

	SE	CO	Support	Identity	Trust	Privacy	Activity	Gender	Age
<b>SE</b>	1								
<b>CO</b>	-.197**	1							
<b>Support</b>	.033	.023	1						
<b>Identity</b>	-.082	.167**	.092	1					
<b>Trust</b>	-.213**	.140**	.299**	.296**	1				
<b>Privacy</b>	-.121*	.126**	.085	.187**	.216**	1			
<b>Activity</b>	.198**	-.246**	.389**	.023	.059	.026	1		
<b>Gender</b>	.127**	-.148**	.054	.045	-.035	.091	.123*	1	
<b>Age</b>	.050	.098*	.067	.135**	.149**	.277**	-.025	.069	1

*Note: Correlation is significant at the 0.05 level (2-tailed) \**

*Correlation is significant at the 0.01 level (2-tailed) \*\**

*SE = Self enhancement, Support = social support and CO = cultural orientation*

*N = 432*

Table 5.6. Suggests that there were significant relationships between variables used in the study. For example, self enhancement seems to decrease with an increase in cultural orientation ( $r = -$



.197,  $p < 0.01$ ), i.e., increase in collectivism decreases self enhancement on Facebook. Increase in self enhancement decreased feeling of online trust ( $r = -.213$ ,  $p < 0.01$ ) and privacy ( $r = -.121$ ,  $p < 0.05$ ). However, increase in self enhancement increased activities on Facebook ( $r = .198$ ,  $p < 0.01$ ).

Increase in cultural orientation, i.e., the more collectivism members were the higher they identified ( $r = .167$ ,  $p < 0.01$ ) and trust ( $r = .140$ ,  $p < 0.01$ ) the other members online. Increase in cultural orientation increase privacy concern ( $r = .126$ ,  $p < 0.01$ ) on Facebook which is also quite relevant to cultural traits as the more collectivist members were the higher they would be concerned out their privacy. Increase in cultural orientation decreased Facebook activities ( $r = -.246$ ,  $p < 0.01$ ), i.e., collectivists are active on Facebook then individualists.

Increase in social support significantly increased online trust ( $r = .299$ ,  $p < 0.01$ ) and Facebook activities ( $r = .389$ ,  $p < 0.01$ ).

Increase in identification with their group members on Facebook seemed to increase their feeling of trust ( $r = .296$ ,  $p < 0.01$ ) for their group members however it also increased their privacy concern ( $r = .187$ ,  $p < 0.01$ ).

Increase in trust for online group members on Facebook increased in online perceived privacy concern ( $r = .126$ ,  $p < 0.01$ ) suggesting that the level of trust for members might vary.

Age and gender were used as control variables as both had associations with the other variables. For example, increase in gender significantly increased online self enhancement ( $r = .127$ ,  $p < 0.01$ ) and Facebook activity ( $r = .123$ ,  $p < 0.05$ ) but significantly decreased cultural orientation ( $r = -.148$ ,  $p < 0.01$ ).

Increase in age seems to significantly increased cultural orientation ( $r = .098$ ,  $p < 0.01$ ) online group identification ( $r = .135$ ,  $p < 0.01$ ), online trust ( $r = .149$ ,  $p < 0.01$ ) and perceived online privacy concern ( $r = .277$ ,  $p < 0.01$ ), which confirmed with age members can identify with their online group members and due to the time and experience members have, they can develop trusting bonds with their social network. However, higher age of members also made them more concerned about their online privacy which could be since members might already have well established offline social network and use the SNSs just for causal socialising.

### 5.3.5. Check for Moderation

Once the relationship of all the variables in the study was established, attempt was made to check if there was any moderation effect. As the data was collected in two different cultures, it was necessary to check for any moderating effect by culture on the variables. PROCESS version 2.15 is an Add-ins in SPSS was used for the analysis. It uses ordinary least squares or logistic regression based framework to estimate direct and indirect effects for single and multiple mediators and moderators with the help of several models, it uses Bootstrap and Monte Carlo confidence intervals, which are also provided along with several measures of effect size which help to make more accurate inferences. It also provides the option to check Sobel test result in the same output which helps to check the result with the traditional method. These benefits outperform the traditional method of checking such effects by using the traditional method in SPSS using logistic regression as it does not allow check such effect using several variables.

When the relationship between two variables depends on the presence of any third variable, a moderation analysis (also known as interaction) is required. This is certainly a very important aspect of this study as the data was collected in two different countries, namely UK and Indonesia. As such it was important to check whether country played any moderating effect between the predictor and outcome variables. The relationship between two variables is said to be moderated when a third variable (in this case country) effects its size and sign. A three-way mediated moderation analysis was run in PROCESS with the direct path ran from predictor (X) to mediator (M) and then another path ran from M to Outcome variable (Y) and a direct path from X to Y. All the three paths were also moderated by country such that the effect between each path depends on the effect from the moderator and for this study the moderator was “Country”. Each variable namely “Facebook activity (both active and passive”, “Social support”, “Trust”, “Privacy”, “Identity” and “Self enhancement”. A moderation analysis ran using the PROCESS plug in SPSS confirmed that country did not have a strong moderating influence on majority of the outcome variables. Out of the six outcome variables there was only one significant moderating effect by country was established (see Table 5.7. below) due to which further moderation analysis was discarded. Instead, mediation effect of engagement on SNS on the psychological variables used in the thesis. The below section will discuss the findings of the mediation analysis.

### 5.3.6. Mediation Analysis

As no moderation effect by country was established, simpler models using mediation analysis using PROCESS, a widely used method used in psychological researches (Baron & Kenny, 1986; Hayes, 2009; Hayes, 2012). The next aim was to establish the causal relationships of other intervening variables that might affect the relationship of the predictor variables and the psychological variables. These intervening variables are called mediating variables. This variation in the predictor variable (X) causing a variation in the mediating variable or variables (M) which in turn will causes a variation in the outcome variables (Y) could be analysed. To test this effect PROCESS estimates the path from X to M (direct) and M to Y (indirect).

The cultural self-construal of the participants which has been termed as ‘Cultural Orientation’ (CO) was used as a predictor in the analysis and each outcome variables (perceived online social support, online group identity, online self-enhancement, online self-enhancement, online trust and online privacy concern) were tested without the mediator first and then with the mediators. At first the direct relationship between the predictor variable or IV and the outcome or the DV was checked and then the mediators were introduced in the analysis. After running the single mediator analysis, a combined mediator analysis was also run, where all the four mediators (FB Active, FB Passive, FB Days and FB HR) were analysed at the same time. Unlike SPSS which uses the traditional regression analysis that allows to check only one mediator at a time, PROCESS gives the advantage of checking more than one mediator at once. Age and gender were used as control variables. (see Table 5.7. for the full results of the mediation analysis for each construct).

Table 5.7.

*Demonstrates the Indirect Effect of Cultural Orientation on Outcome Variables*

Variable	b	SE	Lower CI	Upper CI
<b>Perceived Online Social Support (<math>R^2 = .244</math>)</b>				
Active	-.142	.048	-.259	-.063
Passive	-.063	.038	-.149	.001

FB Days	-.101	.044	-.200	-.026
FB HR	-.038	.035	-.120	.022
<b>Online Trust (<math>R^2 = .073</math>)</b>				
Active	-.050	.033	-.125	.007
Passive	-.017	.028	-.074	.036
FB Days	.021	.031	-.036	.086
FB HR	.004	.022	-.039	.048
<b>Online Privacy (<math>R^2 = .144</math>)</b>				
Active	-.006	.028	-.062	.047
Passive	-.058	.027	-.118	-.013
FB Days	.057	.028	.009	.121
FB HR	.046	.026	.000	.103
<b>Online Group Identity (<math>R^2 = .057</math>)</b>				
Active	-.002	.025	-.053	.044
Passive	-.013	.022	-.059	.030
FB Days	-.012	.025	-.065	.034
FB HR	.000	.021	-.042	.041
<b>Online self-enhancement</b>				
<b>Collectivist attributes (<math>R^2 = .094</math>)</b>				
Active	-.062	.030	-.135	-.012
Passive	.016	.025	-.034	.068
FB Days	-.070	.033	-.148	-.013
FB HR	.004	.028	-.056	.057

**Individualist attributes ( $R^2 = .013$ )**

Active	.020	.030	-.034	.086
Passive	-.019	.027	-.077	.034
FB Days	.000	.028	-.057	.055
FB HR	-.011	.026	-.067	.036

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Table 5.7 above is a summary of the findings of the results of the combined mediation analysis for all the outcome variables using PROCESS. The results confirm that there was a significant mediation effect for social support  $F(7,424) = 19.57$ ,  $p < 0.05$ ,  $R^2 = .24$ , online trust  $F(7,424) = 4.75$ ,  $p < 0.05$ ,  $R^2 = .073$ , online privacy concern  $F(7,424) = 10.23$ ,  $p < 0.05$ ,  $R^2 = .144$ , online group identity  $F(7,424) = 3.65$ ,  $p < 0.05$ ,  $R^2 = 0.57$  and for online self-enhancement on collectivist attributes  $F(7,424) = 6.30$ ,  $p < 0.05$ ,  $R^2 = .094$ . However the mediation analysis for the self-enhancement on individualist attributes was non-significant  $F(7,424) = .83$ ,  $p > 0.05$ ,  $R^2 = .013$ . Although the details for the single mediator mediation analysis has not been provided, the results for the combined models shows indirect effect of cultural orientation on the outcome variables. Therefore, it was further decided that such mediation analysis be explored further which will help to show in-depth results and help to develop models to understand how the various relationships between the variables work. The below sections will be discussing the process and the analysis of mediation analysis using AMOS.

### **5.3.7. Modelling of Multivariate Relationships**

The below sections will be an attempt to outline the various ways how the various multivariate relationships were evaluated through various statistical models.

#### **5.3.7.1. Preparatory analyses**

Exploratory Factor Analysis help to understand the underlying variables from a large set of data and further help to understand the relationships among the variables. Five outcome variables are

proposed for categorization, namely, trust, social support, group identity, privacy and self enhancement along with the predictor variable (cultural orientation) which was further subdivided into collectivism and individualism. There were four mediating variables, namely, Facebook activity (divided as active and passive), FB Days (which looked at the number of days' members had been on Facebook within the last 14 days) and FB hours (which looked at the number of hours' members had been on Facebook in the last 14 days). An exploratory factor analysis was conducted to establish the theoretical importance these variables could establish. The factor analysis was implemented using the Maximum Likelihood (ML) procedure using the Promax method.

The descriptive statistics and correlations were conducted to alleviate any assumption failure of univariate and multivariate distributions and the results confirmed that all the items were normally distributed. Sample adequacy was measured using the Kaiser-Meyer-Olkin (KMO) technique. A Bartlett's Test of sphericity was used to a sufficient relationship between the items confirming further analysis could be conducted.

Promax method was used which extracted items with values greater than 1.0 and in a one factor loading was mostly preferred so that the variables could be used for structural equation model. The exploratory factor analysis would help to establish how the indicators in a latent variable helps to explain the theoretical constructs with the help of structural equation modelling. This was achieved using analysis of moment structures (AMOS). Data reduction was conducted in factor analysis to make sure that the items measured the factor (see Table 8 to check the amended version of the variables). Items that cross-loaded on another factor or did not load on any factor were deleted from the analysis. Once the latent variables were established their reliability scores were also measured.

#### **5.3.7.2. Reliability Measure**

Internal consistency was checked using the scale reliability option in SPSS which looks at the Cronbach alpha [ $\alpha$ ] to determine that the scales used are reliable, i.e., they are measuring what they are supposed to. A series of reliability checks were conducted for each latent variable (see Table 5.8.).

Table 5.8.

*Demonstrates the original items and the amended number of items (N) for each variable, their Cronbach alpha ( $\alpha$ ), the Mean and SD of the amended variables*

Variable	Original items N (Cronbach alpha [ $\alpha$ ])	Amended Items N (Cronbach alpha [ $\alpha$ ])	New Mean	New SD
Facebook activity				
<i>Active</i>	3 ( $\alpha = .80$ )	3 ( $\alpha = .80$ )	9.06	3.08
<i>Passive</i>	11 ( $\alpha = .85$ )	5 ( $\alpha = .76$ )	14.41	4.09
Social Support	10 ( $\alpha = .95$ )	6 ( $\alpha = .91$ )	18.63	5.64
Trust	6 ( $\alpha = .88$ )	5 ( $\alpha = .85$ )	15.65	3.44
Privacy	5 ( $\alpha = .70$ )	3 ( $\alpha = .73$ )	9.31	2.50
Group Identity	6 ( $\alpha = .80$ )	4 ( $\alpha = .79$ )	13.44	2.14
Self enhancement				
<i>Individualism categories</i>	7 ( $\alpha = .66$ )	4 ( $\alpha = .71$ )	14.31	3.22
<i>Collectivism categories</i>	7 ( $\alpha = .71$ )	5 ( $\alpha = .74$ )	19.67	3.48
Cultural Orientation				
<i>Individualism</i>	12 ( $\alpha = .67$ )	6 ( $\alpha = .61$ )	21.51	3.22
<i>Collectivism</i>	12 ( $\alpha = .76$ )	6 ( $\alpha = .66$ )	23.28	3.00

Table 5.8. above demonstrates that all the variables used in the analyses to as subsequent latent constructs or as observed indices of the theoretical constructs has acceptable internal consistency ranging from ( $\alpha = .61$  to  $\alpha = .91$ ), Blacker & Endicott (2002) even after the items in the latent

constructs were amended. Apart from the privacy scale, all the other scales had been validated in past studies. However, the privacy scale used had acceptable reliability score (see Table 5.8), hence was used in the study. The below sections will discuss the amended variables used for the models.

**5.3.8. Online Facebook Activity Scale:** This validated scale had 14 items in total. While Pearson bivariate correlation confirmed that most of the items correlated with each other. However Exploratory Factor analysis confirmed that the items loaded on three different factors. On close look at the individual items it was clear that there was not a very clear differentiation between each loading which made it difficult to confirm what factors they were. For example, “Viewing videos” loaded on Factor one and other two video items “Tagging videos” and “Posting videos” also loaded on another factor. Similarly, categories related to photos also loaded on two factors. Due to the difficulty in coming up with individual factors that measured a construct, it was decided to divide Facebook activity to two apparent categories “Active interaction– where members interacted with other members and the presence of other member is needed” “Passive interaction – in this type of interaction members don’t need the presence of other members”. For this study, further on from now Facebook activity will be divided into two different categories “Active” and “Passive”. For this study inter item correlation with  $< .50$  and above might affect model fit in Structural Equation Modelling (SEM) and hence decided to be removed from the scale as it would suggest that both items meant the same or were very similar.

The “Active” scale consisted of items like “Private messages”, “Commenting” and “FB chat”. Inter-items correlation confirmed that the items did not load very highly however had a correlation of .4 had and above and hence were included in the scale suggesting high factorability. Exploratory Factor Analysis using the Maximum Likelihood method (ML) suggested a Kaiser-Meyer Olkin measure for sampling adequacy was .64 and Bartlett’s test of sphericity was significant  $p < .05$  however Extracted Factor Rotation could not be achieved as only one factor loading was achieved. Finally, a Promax extraction method confirmed one factor loading and eigen values of 1 indicated one factor loading with a cumulative variance of 59.59 %. Factor loadings of the items were .5 and above. Internal reliability of the items was checked using Cronbach alpha ( $\alpha$ ) which had a high internal consistency of  $\alpha = .80$ .

The items in the “Passive” scale originally consisted of the remaining 11 items, however bivariate correlation suggested that some of the items had high multi-collinearity and hence were



eliminated from the scale. It is however important to note that most of the items correlated  $< .3$  suggesting that there is good factorability. This was done so with an aim to propose a model in SEM with accepted model fit. The remaining items five items were “Sharing links”, “Checking up”, “Events”, “Posting Photos” and “Viewing Photos”. Factor Analysis using the Maximum Likelihood method (ML) suggested a Kaiser-Meyer Olkin measure for sampling adequacy was .78 and Bartlett’s test of sphericity was significant  $\chi^2 (5) = 23.13, p < .001$ . Finally, a Promax extraction method confirmed one factor loading and Eigen values of 1 indicated one factor loading with a cumulative variance of 40.87 %. Factor loadings of the items were .4 and above. Internal reliability of the items was checked using Cronbach alpha (a) which had a high internal consistency of  $a = .76$ , (Blackler & Endicott, 2002).

**5.3.9. Online Cultural Self-Construal Scale:** The original scale had 12 items under measuring individualism traits and 12 items measuring collectivism traits. A Pearson Bivariate correlation confirmed that items “all items under this sub scale did not have high multi-collinearity of .5 and above and hence was not overly concerned however most of the items correlated  $> .3$  suggesting that there was good factorability. Exploratory Factor Analysis was conducted at first on the collectivism measuring traits which suggested that item “My happiness depends on the happiness of those around me”, “Even when I strongly disagree with my social group members, I avoid an argument” and “I respect people who are humble about themselves” had low community of  $< .3$  and hence were eliminated. EFA was conducted on the final nine items (see Appendix for a full list) using the Maximum Likelihood method (ML). A Kaiser-Meyer Olkin measure for sampling adequacy was .78 and Bartlett’s test of sphericity was significant at  $\chi^2 (12) = 29.92, p = .003$ . Finally, a Promax extraction method confirmed three factor loading and Eigen value of 1 indicated three factor loading with a cumulative variance of 26.52%, 33.45 % and 38.50 %. Factor loadings of the items were .3 and above. Internal reliability of the items was checked using Cronbach alpha (a) which had a high internal consistency of  $a = .74$ .

Similarly, the individualism measuring items were now checked using Pearson Bivariate correlation which revealed that item “I feel comfortable using someone’s first name soon after I meet them, even when they are much older than I am” correlated negatively on some of the other items hence was eliminated. Also, items “I am the same person at home that I am during social gathering” and “I act the same way no matter who I am with” had high multi-collinearity = .50 and

hence item “I am the same person at home that I am during social gathering” was eliminated from further analysis. EFA was conducted on the final nine items (see Appendix 2 for a full list) using the Maximum Likelihood method (ML). A Kaiser-Meyer Olkin measure for sampling adequacy was .78 and Bartlett’s test of sphericity was significant at ( $\chi^2 (12) = 29.92, p = .003$ ). Finally, a Promax extraction method confirmed three factor loading and Eigen value of 1 indicated three factor loading with a cumulative variance of 26.52%, 33.45 % and 38.50 %. Factor loadings of the items were .3 and above. Internal reliability of the items was checked using Cronbach alpha (a) which had a high internal consistency of  $a = .74$ .

**5.3.10. Online Group identity:** The original scale had 7 items measuring the construct. A Pearson Bivariate correlation confirmed that items “I see myself as a member of my Facebook community” and “It is important for me to be a member of my Facebook community” had high multi-collinearity ( $r = .68$ ) and hence item “It is important for me to be a member of my Facebook community” was eliminated from the scale however most of the items correlated  $< .3$  suggesting that there was good factorability. Exploratory Factor Analysis was conducted on the remaining six items using the Maximum Likelihood method (ML) which suggested that “I see myself as a member of my Facebook community” had a low community of .197 and hence was eliminated and the EFA was run again with the final four items “I like being a member of my Facebook community”, “I am not glad to be a member of my Facebook community” (reversed scored), “I am not proud to be a member of my Facebook community” (reversed scored) and “I do not like being a member of my Facebook community (reversed scored). A Kaiser-Meyer Olkin measure for sampling adequacy was .75 above and Bartlett’s test of sphericity was significant at ( $\chi^2 (2) = 8.72, p = .013$ ). Finally, a Promax extraction method confirmed one factor loading and Eigen value of 1 indicated one factor loading with a cumulative variance of 50.22 %. Factor loadings of the items were .6 and above. Internal reliability of the items was checked using Cronbach alpha (a) which had a high internal consistency of  $a = .79$ .

**5.3.11. Online Self enhancement:** The original scale had 7 items under measuring individualism traits and 7 items measuring collectivism traits. A Pearson Bivariate correlation confirmed all items under both sub scale did not have high multi-collinearity of .5 and above and hence was not overly concerned however most of the items correlated  $> .3$  suggesting that there was good factorability. Exploratory Factor Analysis was conducted at first on the individualism measuring

traits which suggested that item “Separate” had a low community of  $<.3$  and hence was eliminated. Further analysis also suggested that item “Unconstrained” did not load on any factor and hence was also eliminated. EFA was now run on the final four items “Independent”, “Leader”, “Unique” and “Original” using the Maximum Likelihood method (ML). A Kaiser-Meyer Olkin measure for sampling adequacy was .74 and Bartlett’s test of sphericity was significant at ( $\chi^2 (2) = 6.77, p = .034$ ). Finally, a Promax extraction method confirmed one factor loading and Eigen value of 1 indicated one factor loading with a cumulative variance of 39.53 %. Factor loadings of the items were .6 and above. Internal reliability of the items was checked using Cronbach alpha ( $\alpha$ ) which had a high internal consistency of  $\alpha = .71$ .

Similarly, Exploratory Factor Analysis was conducted on the 7 collectivism measuring traits which suggested that item “Self-sacrificing”, “Compromising” and “Loyal” had a low community of  $<.3$  and hence was eliminated. EFA was now run on the final four items “Respectful”, “Compliant”, “Tolerant” and “Modest” using the Maximum Likelihood method (ML). A Kaiser-Meyer Olkin measure for sampling adequacy was .76 above and Bartlett’s test of sphericity was non-significant at ( $\chi^2 (2) = .703, p < .05$ ) however chi square ( $\chi^2$ ) is influenced by sample size and hence its significance is highly debatable. Finally, a Promax extraction method confirmed one factor loading and Eigen value of 1 indicated one factor loading with a cumulative variance of 40.38 %. Factor loadings of the items were .5 and above. Internal reliability of the items was checked using Cronbach alpha ( $\alpha$ ) which had a high internal consistency of  $\alpha = .72$ .

**5.3.12. Perceived Online Social support:** The original scale had 10 items measuring the construct. A Pear Bivariate correlation confirmed that some of the items had high multicollinearity ( $r = .7$  and above) and hence were eliminated from the scale however most of the items correlated  $> .3$  suggesting that there was good factorability. The remaining items six items were “Someone you can count on to listen to you when you need to talk”, “Someone who provides you with information to help you understand a situation”, “Someone to give you good advice on crisis”, “Someone whose advice you really want”, “Someone to share your most private worries and fears with” and “Someone with whom you can have a good time with”. Factor Analysis using the Maximum Likelihood method (ML) suggested a Kaiser-Meyer Olkin measure for sampling adequacy was .91 above and Bartlett’s test of sphericity was significant at ( $\chi^2 (9) = 40.88, p < .001$ ). Finally, a Promax extraction method confirmed one factor loading and Eigen values of 1

indicated one factor loading with a cumulative variance of 64.64 %. Factor loadings of the items were .6 and above. Internal reliability of the items was checked using Cronbach alpha (a) which had a high internal consistency of  $a = .91$ .

**5.3.13. Online Trust:** The original scale had 6 items measuring the construct. A Pear Bivariate correlation confirmed that one of the item had high multi-collinearity ( $r = .7$ ) and hence was eliminated from the scale however most of the items correlated  $< .3$  suggesting that there was good factorability. The remaining five items were “Do their best to help me”, “Do care about the wellbeing of others”, “Are open and receptive to the needs of each other”, “Are honest in dealing with each other”, “Keep their promises” and “Are trustworthy”. Factor Analysis using the Maximum Likelihood method (ML) suggested a Kaiser-Meyer Olkin measure for sampling adequacy was .85 above and Bartlett’s test of sphericity was significant at ( $\chi^2 (9) = 152.62, p < .001$ ). Finally, a Promax extraction method confirmed one factor loading and Eigen value of 1 indicated one factor loading with a cumulative variance of 55.25 %. Factor loadings of the items were .6 and above. Internal reliability of the items was checked using Cronbach alpha (a) which had a high internal consistency of  $a = .88$ .

**5.3.14. Online Privacy Concern:** The original scale had 7 items measuring the construct. A Pearson Bivariate correlation confirmed that two of the items “I don’t care who looks on my Facebook profile” and “I get worried about people being able to view my personal information on Facebook” which were reversed scored correlated negatively hence were eliminated from the scale. Items “I like to use filter settings to group my social contacts on Facebook” and “Using filter settings is important for me as it helps me to be open in my opinions on Facebook” had a high multi-collinearity of .60 and hence item “Using filter settings is important for me as it helps me to be open in my opinions on Facebook” was eliminated which confirmed that item “. An Exploratory Factor Analysis was conducted using the Maximum Likelihood (ML) method which confirmed that item “I like to use filter settings to group my social contacts on Facebook” did not load on any factor and hence was eliminated from the analysis. The remaining items three items were “I keep myself up to date with changes in privacy settings”, “I always update my security settings on my Facebook account” and “I am fully aware of the use of privacy settings on Facebook”. A Kaiser-Meyer Olkin measure for sampling adequacy was .64 above and Bartlett’s test of sphericity was significant ( $p < .001$ ) however as only one factor was extracted, factor extraction could not be

achieved. Finally, a Promax extraction method confirmed one factor loading and Eigen value of 1 indicated one factor loading with a cumulative variance of 51.91 %. Factor loadings of the items were .5 and above. Internal reliability of the items was checked using Cronbach alpha ( $\alpha$ ) which had a high internal consistency of  $\alpha = .74$ . Table 5.9 illustrates the full list of factor loadings of variables in Study 2. The below section 5.1.9 will outline the SEM analysis.

Table 5.9.

*Demonstrates variables with their factor loadings, percentage of variance, number of items (N) and their Cronbach alpha score [ $\alpha$ ]*

Variable	Range of Factor loadings	Percentage of variance	Number of items (Cronbach alpha [ $\alpha$ ])
<b>Facebook activity</b>			
<i>Active</i>	.55 to .90	59.59	3 ( $\alpha = .80$ )
<i>Passive</i>	.42 to .80	40.87	5 ( $\alpha = .76$ )
<b>Social Support</b>	.68 to .89	64.64	6 ( $\alpha = .91$ )
<b>Trust</b>	.60 to .88	55.25	5 ( $\alpha = .85$ )
<b>Privacy</b>	.53 to .89	51.91	3 ( $\alpha = .73$ )
<b>Group Identity</b>	.55 to .87	50.22	4 ( $\alpha = .79$ )
<b>Self enhancement</b>			
<i>Individualism</i>	.50 to .72	39.53	4 ( $\alpha = .71$ )
<i>categories</i>			
<i>Collectivism</i>	.57 to .71	40.38	5 ( $\alpha = .74$ )
<i>categories</i>			

### **Cultural Orientation**

<i>Individualism</i>	.30 to 1.00	13.16/ 29.89/ 34.73	6 ( $\alpha = .61$ )
<i>Collectivism</i>	.30 to .65	26.54/ 33.45/ 38.49	6 ( $\alpha = .66$ )

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### **5.3.15. SEM Analysis**

Structural Equational Modelling (SEM) is used to measure relationships between constructs variables depicted in the various models (Arbuckle, 2006). SEM was chosen as the method of analysis as it has the benefit of being able to test the relationship between severable constructs at the same time and their observed measures. It also helps to control for measurement errors to establish relationships that are proposed by the model. The iterations help to assess models that bit fits the data (Schumacker & Lomax, 2004a). Modelling using SEM was conducted using five step approach, namely, a) model specification, b) model identification, c) model estimation, d) model testing and e) model modification which is briefly described for each model.

### **5.3.16. Model Specification**

The model specification, its design and measurement has been based on theoretical evidence (Byrne, 2001) and items used in the measurement which is decided had been considered after conducting literature review on the topic, where the items had been used in past research. This ensures that the model has good construct validity. As mentioned in the earlier section that apart from the privacy scale all the scales had been adapted from past validated scales that had been used in past study. Each construct is used as a latent variable as such construct were measured through items that were observed, in this study it was through self-report responses through an online survey.

The model consists of six constructs that were measured through observed items. They were cultural orientation of respondents was defined by two latent constructs namely individualism and collectivism and were the exogenous variables. Online self-support, online trust, online privacy,

group identification and online self enhancement were the endogenous variables. Facebook activity was defined by two observed variables 'Active and Passive', Facebook time measured the average time respondents spent on Facebook in the last 14 days, which were used as mediators in the model. In order fully understand Facebook engagement, it was important to also understand the duration of Facebook use among its members. Therefore, it was decided to include two additional observed variables (FB Days (measured the average number of days members used Facebook in the last fourteen days) and Facebook HR (measured the average number of hours members used Facebook in the last fourteen days). It is important to point out that as not all members indulged in use of Facebook every day and not every member uses Facebook for the same length of time, it was important to use the observed variables separately, which would help to achieve a more in-depth understanding of Facebook engagement. The error term in the model identifies the amount of variance in each observed variable

### **5.3.17. Model Estimation**

Model estimation was a process which helped to check for relationships between items and or constructs. AMOS was used to obtain Model Fit indexes. The indexes that we used to access the model fit in this study were chi square ( $X^2$ ), Comparative Fit Indices (CFI), Normal Fit Index (NFI) and the Root Mean Square Error of Approximation (RMSEA). Model fit for CFA and SEM was checked across a range of fit indices (Hooper, Coughlan, & Mullen, 2008).

**5.3.17.1. The chi square ( $X^2$ ):** Provides the observed and implied model difference. The aim of the model was to attain a non-significant effect ( $\text{Chi square} - X^2 = p > 0.05$ ) as a non-significant chi-square would suggest that the implied theoretical model matches the original sample variance matrix however as  $X^2$  is sensitive to sample size it tends to provide statistically significant result based on the sample size. It is for this reason that other fit indexes were also used to check for model fit.

**5.3.17.2. Goodness-of-Fit Index (GFI):** The GFI measured the amount of variance and covariance in the sample matrix that is produced by the proposed matrix i.e., it is the ratio of the sum of the squared differences between the observed and the reproduced matrices to the observed

variance. This index is similar to the  $R^2$  in a regression output. An acceptable range for GFI is .95 and above (Schumacker & Lomax, 2004).

**5.3.17.3. Root Mean Square Residual Index (RMR):** The RMR index is used to compare two different models with same dataset. It uses the square root of the mean squared differences between the original sample matrix and the proposed matrix. The acceptable range for RMR is anything < 0.05 (Jöreskog & Sörbom, 1982).

**5.3.17.4. Normal Fit Index (NFI) and Comparative Fit Index (CFI):** NFI and CFI rescales the chi-square to a fit range from 0 (no fit) to 1 (perfect fit) range (Bentler, 1990) suggesting that the closer the index is to 1 the better is the model fit.

**5.3.17.5. Root Mean Square Error of Approximation (RAMSEA):** This model fit Index is based on non-centrality measure and also rescales the chi-square complexities and model fit ranges from 0.01 (excellent), 0.05 (good) and 0.08 (medium) indication of model fit (MacCallum, Browne, & Sugawara, 1996; Steiger, 1998)

### **5.3.18. Model Testing**

Once the model has been run, its fit indexes were checked and if the model fit indexes didn't fall under the acceptable range, the model was re-specified by adding or deleting indicators or variables. After making the required adjustments each model was checked again and this process of re-specification and checking was done till each model reached the final model fit.

### **5.3.19. Model Modification**

The final step in the model re-specification is by modification of the model by adding or deleting paths. This was achieved by constantly checking the regression weights of the paths and checking the modification suggestions.

### **5.3.20. Re-specification**

The models in the study were specified to enhance the FIT indexes however care was taken that any changes or alterations made to the model was theoretically supported (Meyers, Gamst, & Guarino, 2006). The below method was used to re-specify a model and the same process was followed for all the models in the study.



- a) Determine all the constructs that should be included in the model. This was achieved by previous literature review, past findings and also supported current research hypotheses.
- b) At first single models were drawn in AMOS.
- c) Results were checked along with the FIT indices.
- d) Checked regression weights and significant and non-significant paths.
- e) Checked modification suggestions.
- f) Modified models based on modification suggestions.
- g) Ran all models again.
- h) Re-examined the fit measures.
- i) Made decision whether to keep the model or make further modification depending on the results outcome (Meyers et al., 2006; Schumacker & Lomax, 2004). The final models are briefly discussed below.

### **5.3.21. Process**

#### **Step 1:**

At first a construct was selected and a single model which consisted of a predictor variable or IV, an outcome variable or DV and a mediator were designed using AMOS. While this research wanted to access the effect of Facebook use on the psychological outcome variables, it was decided to break Facebook use in days and time. It is believed that this will help to capture the effect of Facebook in more detail. Therefore, the design consisted of four mediators, namely FB Active (members have actively interacted with other members), FB Passive (members indulge in browsing through the site without actually interacting with anyone), FB Days (measures the number of days respondents had been on Facebook in the last fourteen days) and FB HR (measures the number of hours' respondents had been on Facebook in the last fourteen days), which was used in a single model, one at a time. This allowed to check for the effect of each mediator on the relationship of the IV and DV. The IV were the two dimensions of cultural self-construal

(collectivism/ individualism) which formed the cultural orientation (CO) of the participants. Each CO was analysed separately using each of the four mediators separately.

Step 2:

Once the single models were run, the four mediators were then combined into a combined model. Each IV (collectivism and individualism) was analysed using the mediation analysis function in AMOS and their model fit was evaluated.

Step 3:

Attempt was also made to combine both CO (individualism and collectivism) together so that there was one IV with a hope to simplify the design. However, on running AMOS it was established that the model fit failed to meet the required acceptable fit indices. Therefore, it was decided that each construct collectivism and individualism (which together make up one's cultural self-construal) will be measured separately. Due to the several number of models in the study, all the single models had been discussed below and a brief outline of the analysis of the combined model has been presented. While the single models can be found for each construct, the combined models are presented in the Appendices. Furthermore, attempt has been made to include several model fit indices to enhance model fit acceptance. Mediation analysis was conducted across all the models with 2000 bootstrapped samples (Shrout & Bolger, 2002) with 95 % confidence interval.

The results for each construct will be discussed in the following order:

- a) Online Group Identity
- b) Online Self-Enhancement
- c) Perceived Online Social Support
- d) Online Trust
- e) Online Privacy Concern

### **5.3.21.1. Online Group Identity**

This model looked at the impact of cultural orientation (individualism/ collectivism) on how much members identified with their group members on Facebook. While Models 1,2,3,4 (Figure

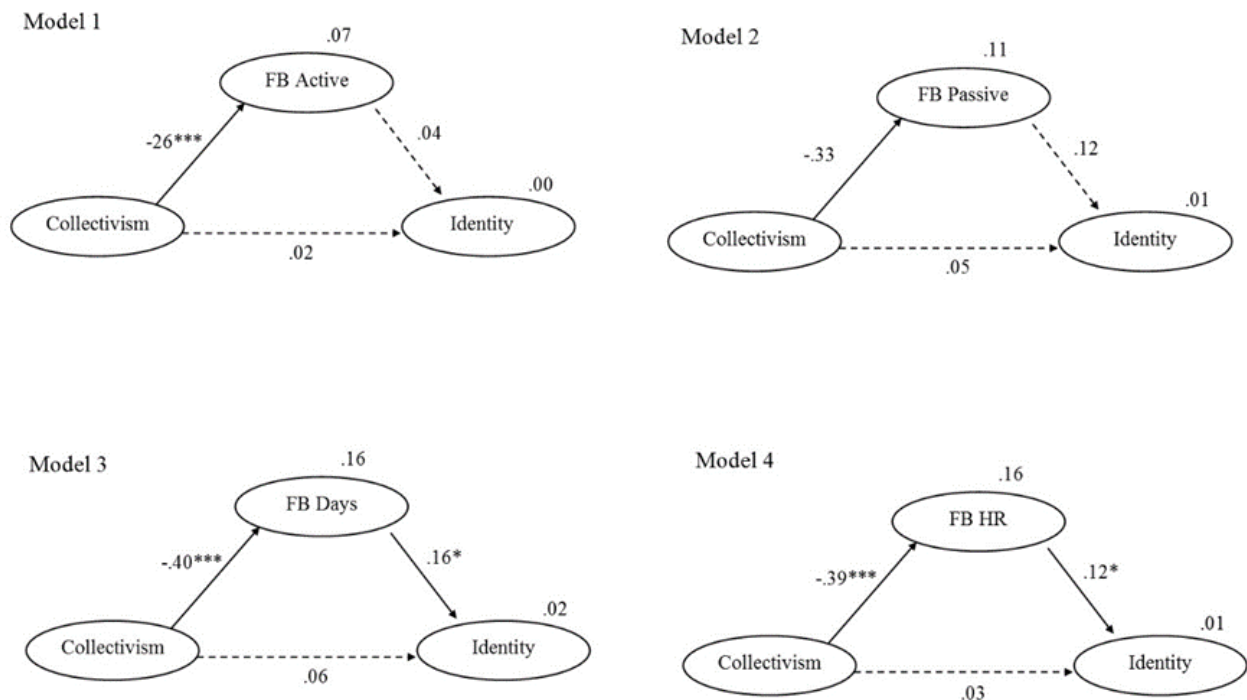
5.3) and Model 5,6,7,8 Figure (5.4) are the single mediator models and Figure 5.5 (see Appendix 7) combined models where all the four mediators are analysed together for each cultural orientation.

**H1: Facebook activities (type) and frequency (time) will mediate the relationship between culture and group identity such that increase in Facebook activity will increase the level of group identity.**

The number of days spent on Facebook (Model 3: FB Days) and the number of hours' members spent on Facebook (Model 4: FB HR) had a significant mediating effect on group identification and confirms full mediation (see Table 5.10) as there also seems to be no direct effect from collectivism to group identity (Model 3:  $\beta = .06$ ,  $p > .05$ ; Model 4:  $\beta .03$ ,  $p > .05$ ). Increase in collectivism significantly decreased FB activities in all the models. Increase in FB Days, i.e., the number of days' members spend on Facebook and increase in FBHR, i.e., the number of hours' members spend on Facebook also increased group identity. This suggests that time spent on Facebook seems to help in group identification for members with collectivist attributes and not what type of activity they do which is also supported by acceptable Model fit indexes (see Table 5.10) partially supporting H1.

Figure 5.3.

Models 1 to 4 Illustrates Standardized Path Coefficients of the Mediating Effect on Online Group Identity using Collectivism as the predictor variable



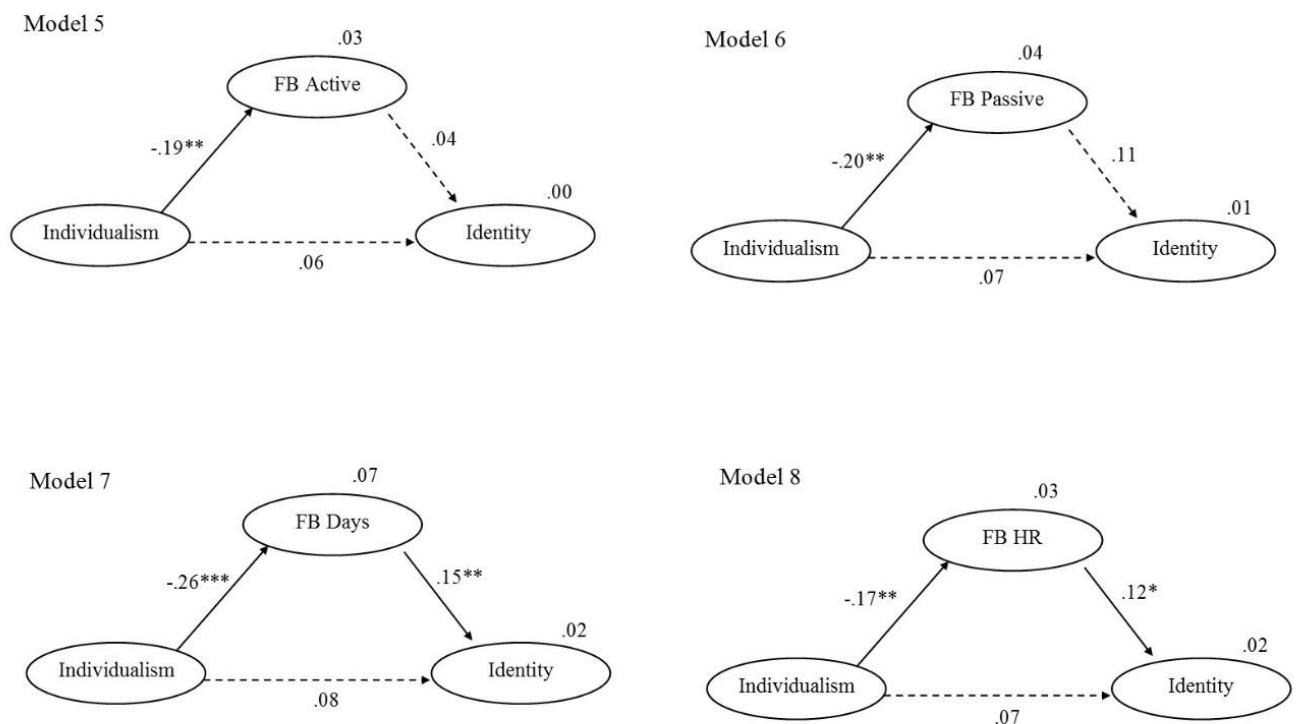
Note: FB = Facebook; FB Active = active interaction on Facebook; FB Passive = passive interaction on Facebook; FB Days = average number of days' respondents had been on Facebook in the last 14 days and FB HR = average number of time (in minutes) respondents had been on Facebook in the last 14 days

Figure 5.4 which uses individualism as the cultural orientation as the predictor variable demonstrates that in general increase in individualism decreases activities on Facebook. FB Active seems to have a non-significant effect on group identity (beta = .01,  $p > 0.05$ ) suggesting there is no effect of active participation on Facebook on group identity. Such effect seems to be consistent with both cultural orientations (collectivism and individualism). It is possible that such activities

require more one-to-one interaction where the entire group is not involved. There also seems to be a very weak direct effect from FB Passive to group identity ( $p > .05$ ) and the confidence intervals was (lower: -.059 and upper: .149) confirming that although the indirect effect was just acceptable (beta = .053), there was no mediation. Model 7 however confirms that the direct path from FB Days (which measures the number of days one spends on Facebook) and (Model 8) FB HR (the number of hours one spends on Facebook) was now significant suggesting the number of days' members spent and the time spent on Facebook seems to effect group identity however the effect seems to be weak in both the models (Model 7:  $b = .005$ ,  $p > 0.05$ , -.075, -.016 and Model 8:  $b = .017$ ,  $p < 0.05$ , - 0.45, - .006. (See Table 5.11) also partially supports H1.

Figure 5.4.

Models 5 to 8 Illustrates Standardized Path Coefficients of the Mediating Effect on Online Group Identity using Individualism as the predictor variable



Note: FB = Facebook; FB Active = active interaction on Facebook; FB Passive = passive interaction on Facebook; FB Days = average number of days' respondents had been on Facebook in the last 14 days and FB HR = average number of time (in minutes) respondents had been on Facebook in the last 14 days

Figure 5.5. (see Appendix 7) demonstrates the combined model which consists of all the four mediators (FB Active, FB Passive, FB Days and FBHR) and also tests both cultural orientation (collectivism and individualism) separately. The results suggest that in both Model 9 and Model 10, the direct link between collectivism and group identity ( $\beta = .80, p > .05$ ) and individualism and group identity ( $\beta = 1.94, p > .05$ ) is non-significant suggesting that both cultural orientation does not help to predict group identity. In Model 9 the increase in collectivism significantly decreased activities on Facebook (b range is  $-.72$  to  $-.87$ ) and in Model 10 (b range is  $-.70$  to  $-.84$ ) which is quite strong. However, all the direct paths from Facebook activities in both the models seems to be non-significant (collectivism: FB Active –  $\beta = -.14, p > .05$ , FB Passive –  $\beta = .32, p > .05$ , FB Days –  $\beta = .02, p > .05$  and FB HR –  $\beta = .03, p > .05$ ); Individualism: FB Active –  $\beta = -.15, p > .05$ , FB Passive –  $\beta = .42, p > .05$ , FB Days –  $\beta = .02, p > .05$  and FB HR –  $\beta = .03, p > .05$ ). Both the combined models Model 9 ( $b = .263, p > 0.05, -1.496, .235$ ) and Model 10 ( $b = .204, p > 0.05, -2.653, .211$ ) failed to show any significant mediating effect. Table 5.10. below also confirm that the Model fit scores also go beyond the acceptable range for all the fit indexes when the mediators are combined together in one model. There was no mediating effect established in both the model which also reflects in the confidence intervals.

Table 5.10.

*Illustrates the Model Fit Indices, the Mediation Effect (Indirect Effect) & the Confidence Intervals for all the models for Online Group Identity*

Model	RMR	GFI	NFI	CFI	RMSEA	Indirect effect	Lower bound CI	Upper bound CI
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1	.048	.945	.899	.921	.085	.467	-.041	.121
2	.037	.958	.914	.944	.057	.085	-.090	-.002
3	.091	.952	.897	.916	.092	.006	-.111	-.025
4	.049	.952	.897	.917	.092	.020	-.092	-.016
5	.042	.962	.935	.957	.064	.360	-.032	.008
6	.035	.966	.936	.968	.045	.053	-.059	.149
7	.074	.971	.941	.960	.065	.005	-.075	-.016
8	.036	.975	.946	.966	.060	.017	-.045	-.006
9	.094	.889	.842	.875	.084	.263	-1.496	.235
10	.087	.880	.821	.853	.091	.204	-2.653	.211

*Note:*

*Indirect effect or mediation is significant at the 0.05 level\*; 0.01 level \*\* and 0.001\*\*\**

*Model 11 is combined model with both predictors (individualism and collectivism) along with all the mediators run together*

*Ind = Individualism; col = collectivism*

Overall the results suggest that in general the single mediator models confirms a better mediating effect on the relationship between the cultural orientation and group identity as when the mediators are combined the model fit indices reduced. In general, it can be seen that for both the cultural orientation, i.e., for both collectivists and individualists the number of days and time members invests has a full mediating effect on group identification. This further confirms that increase in frequency of Facebook use increased the group identification not the type of activities members indulged in.

**H2: Group identification would be stronger among members from collectivist cultures than members from individualist cultures.**

An independent sample t-test for group identification confirmed that Indonesian participants identified with their group members more than the UK participants and the difference was significant ( $t = -4.08$ ,  $df = 430$ ,  $p < 0.05$ , two tailed and had a weak effect size was ( $d = 0.25$ ) which supports H2.

To summarize, the results confirmed that the higher the consistency of being available on SNS, like Facebook, the higher members would be able to identify with others. The activities on Facebook did not have any effect on group identification. Furthermore, members from collectivist countries identified with their group members more than the members from individualist countries.

### **5.3.21.2. Online Self-Enhancement**

This model looked at the impact of cultural orientation (individualism/ collectivism) on online self enhancement on Facebook. Self-enhancement was measured using 7 collectivist traits and 7 individualist traits. Therefore, it was decided that self enhancement be measured on the cultural traits separately. Hence at first the single mediator models were run in AMOS followed by the combined mediator models. The aim was to measure how participants with particular cultural orientation (collectivism/ individualism) scored on the cultural orientation traits, i.e., how much they self-enhanced on their particular cultural traits. The results will be discussed to evaluate the hypothesis:

**H3: Forms of online self-enhancement will vary across cultures. Individualists should rate themselves higher on individualist attributes compared to others online whereas collectivists should rate themselves higher collectivist attributes compared to others.**

An independent sample t-test for self-enhancement confirmed that participants in the UK scored themselves higher on collectivist traits than the participants in Indonesia (UK:  $M = .93$ ,  $SD = .702$ ; Indonesia:  $M = .40$ ,  $SD = .574$ ),  $t = .873$ ,  $df = 430$ ,  $p < 0.05$ , two tailed and had a large effect size ( $d = .83$ ). This was certainly not as expected as members were anticipated to score themselves higher on their cultural specific traits thus it failed to support H3. The results also confirmed that



participants in the UK scored themselves higher on individualist traits than participants in Indonesia (UK:  $M = .31$ ,  $SD = .780$ , Indonesia:  $M = .17$ ,  $SD = .493$ ),  $t = 2.251$ ,  $d = 430$ ,  $p < 0.05$ , two tailed and had a weak effect size ( $d = .21$ ). This was as per what was expected as members from individualist cultures (UK) would be expected to score higher on individualist traits than members from collectivist cultures which supports H3. However as individualist members (UK) scored higher on collectivist traits than the members from collectivist country (Indonesia), overall it seems to partially support H3 as the effect size was larger for this difference in scores than when members scored themselves higher on cultural specific traits.

**H4: Facebook activities and Facebook frequency will mediate the relationship between cultural orientation of participants and their online self-enhancement such that increase in Facebook activities and FB frequency will increase self-enhancement in both cultures.**

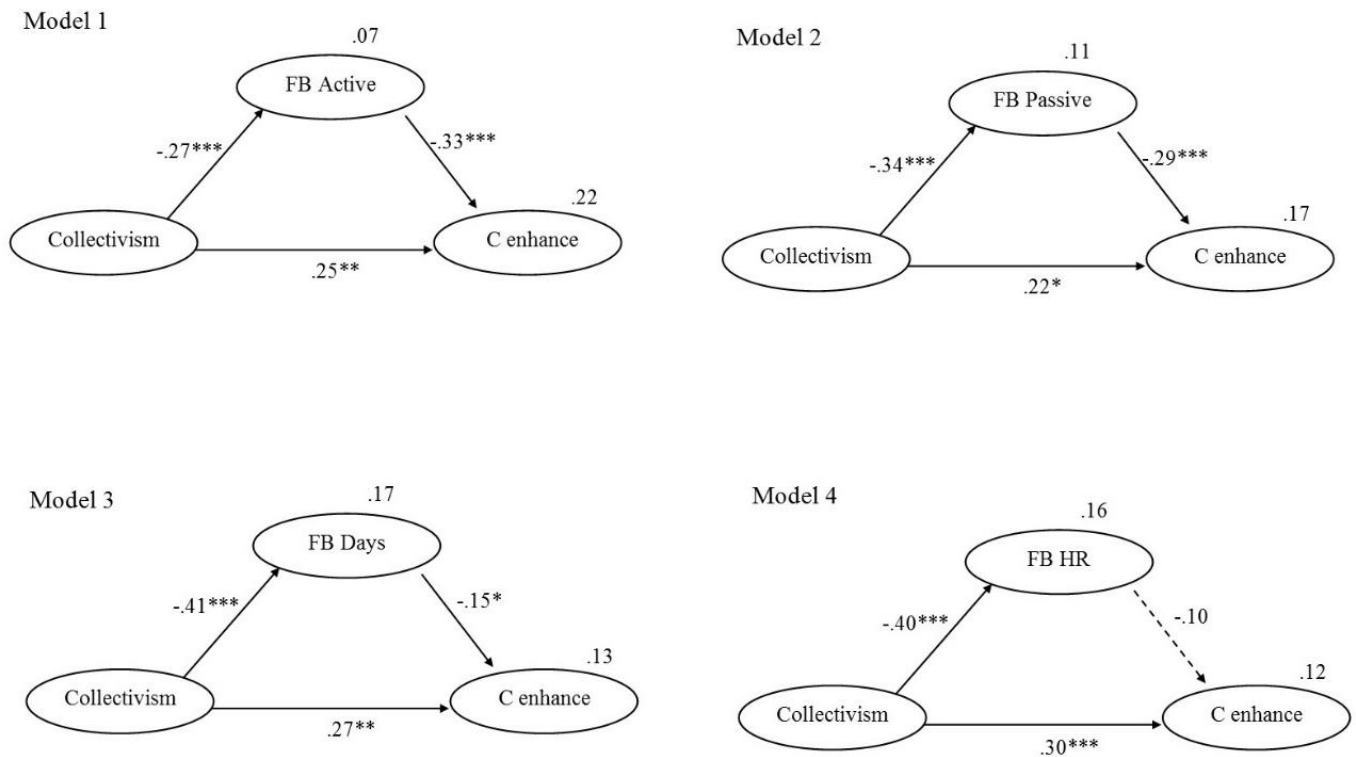
Figure 5.6 illustrates the single mediator models where scores on collectivism was used as the IV and self-enhancement was measured on collectivist traits as the DV with the single mediators each time. The results confirm that both active ( $b = .000$ ,  $p < 0.05$ , .085, .307) and passive ( $b = .003$ ,  $p < 0.05$ , .065, .303) type of Facebook activities significantly mediated the relationship between cultural orientation (collectivism traits) and self-enhancement such that increase in collectivism decreased Facebook activities (both active and passive). However, increase in Facebook activities decreased online self-enhancement failing to support H4. This was also the case when individualism was used as the IV, both active ( $b = .000$ ,  $p < 0.05$ , .045, .178) and passive ( $b = .003$ ,  $p < 0.05$ , .065, .303) Facebook activities significantly mediated the relationship between individualism and self-enhancement (see Figure 5.8). The results confirm that increase in individualism decreases Facebook activities (both active and passive) and increase in Facebook activities (both active and passive) decreases self-enhancement which fails to support H4.

The other mediators (FB Days: number of days of Facebook use and FB HR: number of hours invested on Facebook) failed to show any significant effect on self-enhancement. This confirms that when cultural orientation increased it resulted in decrease in use of SNS, like Facebook. This could be attributed to social restrictions, accessibility and availability of SNS or might also be attributed to cultural norms. On the contrary when members used SNS, like Facebook it failed to help them self-enhance which was not what was expected and thus failed to support H4. In order

to prevent complexity only significant mediating effect has been highlighted. There also existed a fairly expectable model fit indices for all the models had fairly acceptable model fit indices (see Table 5.11 below) confirming that the results were representative of the population in both countries.

*Figure 5.6.*

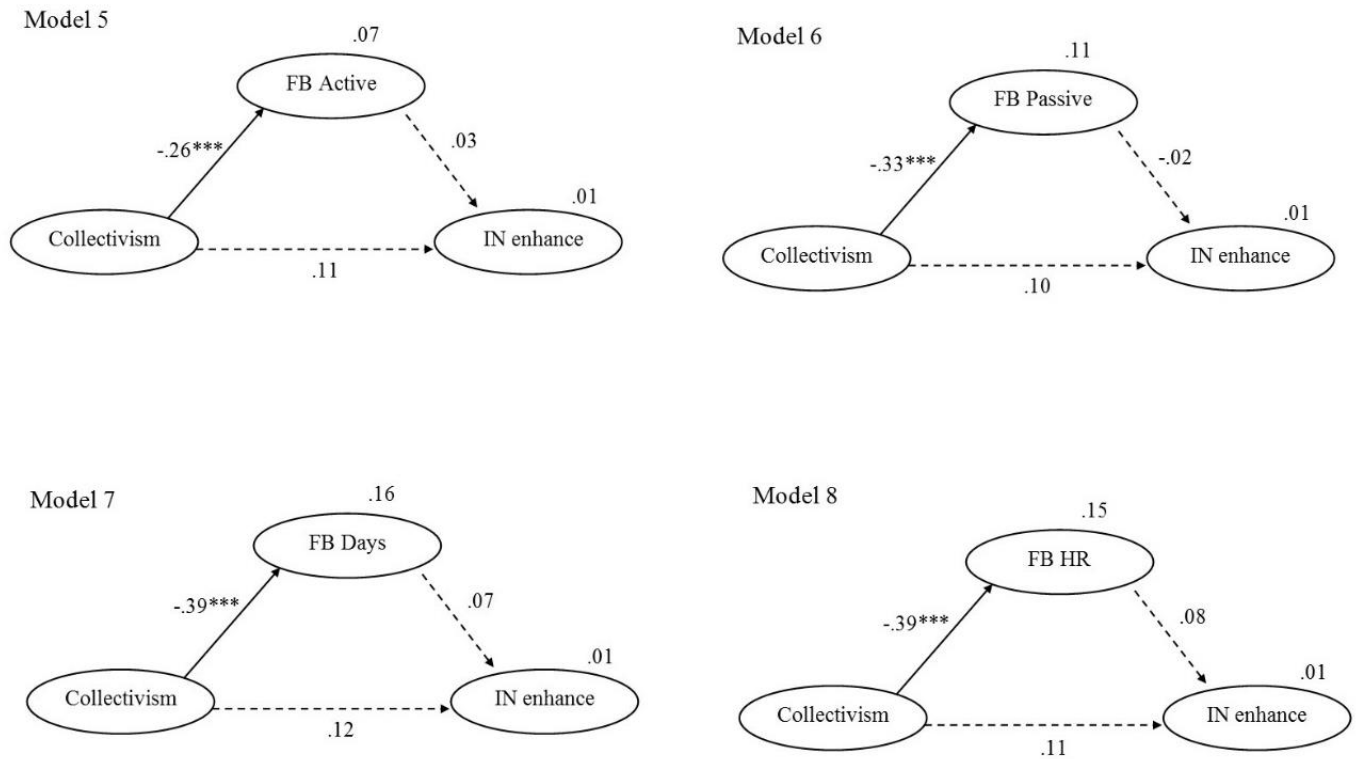
Models 1 to 4 Illustrates Standardized Path Coefficients of the Mediating Effect on Online Self-Enhancement using Collectivism as the predictor variable on Collectivist Attributes



*Note: FB = Facebook; FB Active = active interaction on Facebook; FB Passive = passive interaction on Facebook; FB Days = average number of days' respondents had been on Facebook in the last 14 days and FB HR = average number of time (in minutes) respondents had been on Facebook in the last 14 days*

Figure 5.7.

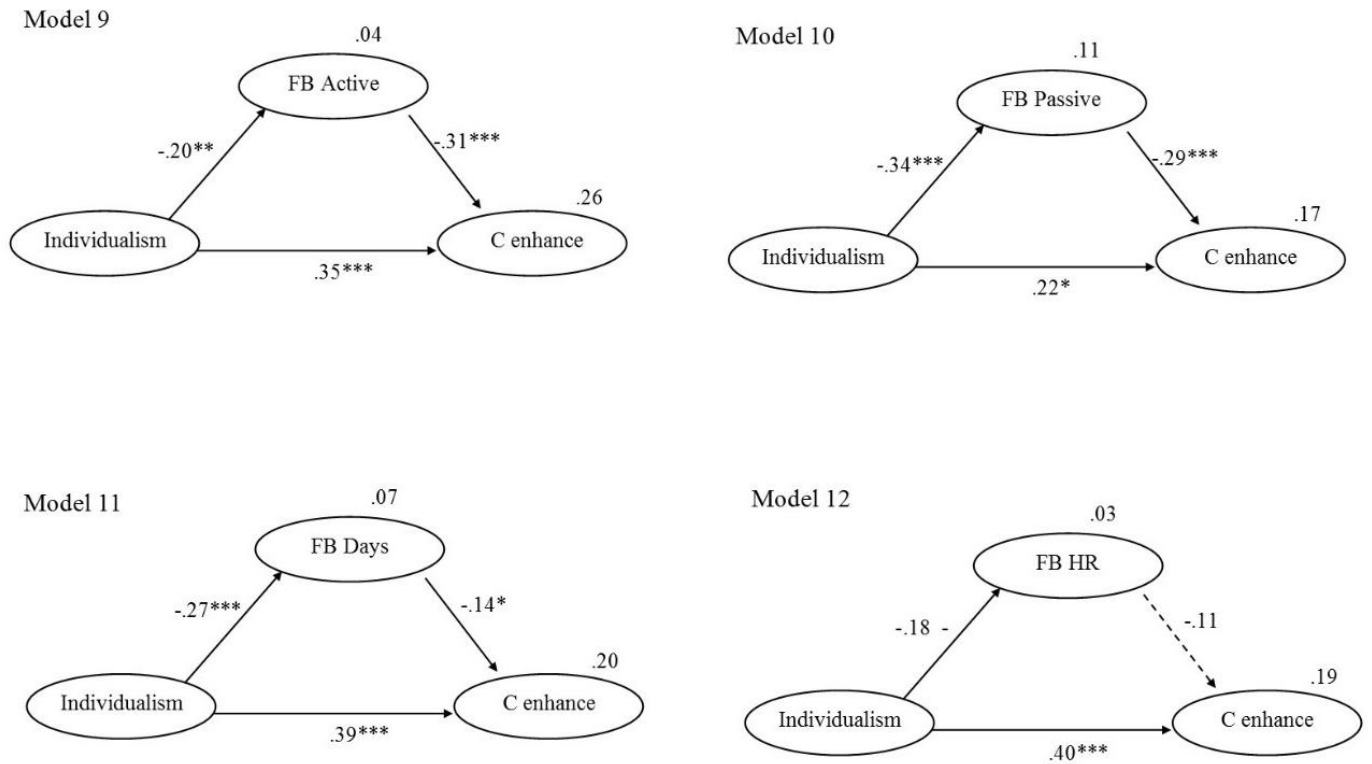
Models 5 to 8 Illustrates Standardized Path Coefficients of the Mediating Effect on Online Self-Enhancement using Collectivism as the predictor variable on Individualist Attributes



Note: FB = Facebook; FB Active = active interaction on Facebook; FB Passive = passive interaction on Facebook; FB Days = average number of days' respondents had been on Facebook in the last 14 days and FB HR = average number of time (in minutes) respondents had been on Facebook in the last 14 days

Figure 5.8.

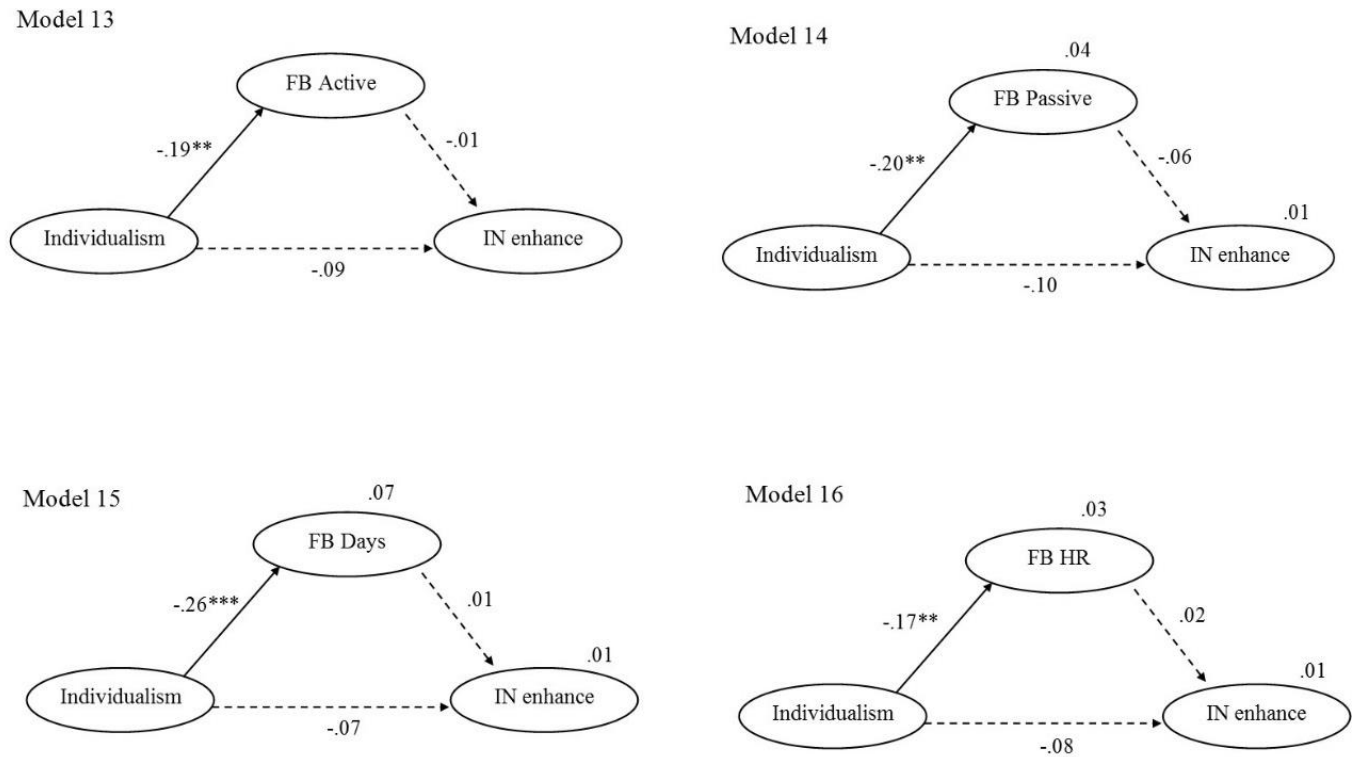
Models 9 to 12 Illustrates Standardized Path Coefficients of the Mediating Effect on Online Self-Enhancement using Individualism as the predictor variable on Collectivist Attributes



Note: FB = Facebook; FB Active = active interaction on Facebook; FB Passive = passive interaction on Facebook; FB Days = average number of days' respondents had been on Facebook in the last 14 days and FB HR = average number of time (in minutes) respondents had been on Facebook in the last 14 days

Figure 5.9.

Models 13 to 16 Illustrates Standardized Path Coefficients of the Mediating Effect on Online Self-Enhancement using Individualism as the predictor variable on Individualist Attributes



Note: FB = Facebook; FB Active = active interaction on Facebook; FB Passive = passive interaction on Facebook; FB Days = average number of days' respondents had been on Facebook in the last 14 days and FB HR = average number of time (in minutes) respondents had been on Facebook in the last 14 days

Figure 5.10 (see Appendix 8) illustrates the combined models where all the four mediators (FB active, FB Passive, FB Days and FB HR) were run together in the same model using cultural orientation (collectivism/ individualism) as the IV and self enhancement on collectivist attributes as DV. The aim was to understand whether cultural orientation had an impact on self-enhancement on collectivist attributes mediated by the four mediators. While the combined model failed to

show any significant mediating effect on the relationship between collectivism cultural orientation and self enhancement ( $b = .097$ ,  $p > 0.05$ ,  $.034$ ,  $11.779$ ) (see Appendix 8, Model 17), individualism cultural orientation on the other hand showed significant overall mediating effect ( $b = .001$ ,  $p < 0.05$ ,  $3.531$ ,  $48.288$ ) (see Appendix 8, Model 18). The model confirms that increase in individualism decreases Facebook activities (Active:  $b = -.17$ ,  $p < 0.05$ ; Passive:  $b = -5.22$ ,  $p < 0.05$ , FB Days:  $b = -27.40$ ,  $p < 0.05$  and FB HR:  $b = -13.59$ ,  $p < 0.05$ ). The path from FB Days and FB HR are significant and further confirms that increase in the number of days one uses Facebook (FB Days) decreased self enhancement ( $b = -.11$ ,  $p < 0.05$ ) and increase in the time invested on Facebook use (FB HR) also significantly decreases self-enhancement ( $b = -.20$ ,  $p < 0.05$ ) which partially supports H13. The path from individualism to self-enhancement was also significant suggesting that there is also a direct effect of cultural orientation on self enhancement ( $b = -.17.50$ ,  $p < 0.05$ ). However, as the direct path from individualism to self enhancement is negative, it suggests that increase in individualism (cultural orientation) has a negative effect on self-enhancement, such that increase in cultural individualism will decrease self-enhancement on collectivist traits online and was supported by acceptable model fit indices (see Table 5.11). This result could be suggesting that there exists a correlation between the four mediators used as the combined model showed a significant mediation effect on self-enhancement for individualism cultural orientation. Furthermore, when the mediators (FB Days; number of days used Facebook; FB HR: number of hours invested on Facebook) are analysed separately it failed to have any significant mediating effect on both cultural orientations, which further supports the analysis that if self-enhancement, needs to understood in-depth, all the four mediators need to analysed together.

Figure 5.11 (see Appendix 9) illustrates the combined models where all the four mediators (FB active, FB Passive, FB Days and FB HR) has been run together in the same model using cultural orientation (collectivism/ individualism) as the IV and self enhancement on individualist attributes as DV. The aim was to understand whether cultural orientation had an impact on self-enhancement on individualist attributes mediated by the four mediators. The results confirmed that Model 19 ( $b = .404$ ,  $p > 0.05$ ,  $-6.439$ ,  $2.334$ ) and Model 20 ( $b = .305$ ,  $p > 0.05$ ,  $-3.228$ ,  $26.331$ ) which used individualist attributes for self-enhancement as DV both failed to show any significant mediating effect on self-enhancement hence has not been discussed further.

**H5: There will be a positive relationship between number of Facebook friends' participants have in both cultures and online self enhancement such that increase in number of social contacts on Facebook will increase feelings of self-enhancement for participants in both UK and Indonesia.**

First, tests for differences between countries were carried out. Independent samples t-tests for perceived online self-enhancement and the total number of friends, members had on Facebook showed significant differences for both variables: Indonesian participants had a higher number of friends on Facebook ( $M = 47.45$ ,  $SD = 72.42$ ) than participants in UK ( $M = 25.83$ ,  $SD = 24.17$ ,  $t = -4.08$ ,  $df = 424$ ,  $p < 0.05$ ,  $d = .40$ ). Indonesian participants scored lower level of self-enhancement ( $M = .23$ ,  $SD = .57$ ) than the UK participants ( $M = .63$ ,  $SD = .91$ ,  $t = 8.04$ ,  $df = 424$ ,  $p < 0.05$ ,  $d = .53$ ).

In order to take account of the country differences, separate correlations between number of friends and self-enhancement were calculated for both samples. Again, this failed to support H5 because correlations were nil for both Indonesians ( $r = .00$ ) and UK participants ( $r = .00$ ).

Table 5.11.

*Illustrates the Model Fit Indices, the Mediation Effect (Indirect Effect) & the Confidence Intervals for all the models for Online Self-Enhancement*

Model	RMR	GFI	NFI	CFI	RMSEA	Indirect effect	Lower bound CI	Upper bound CI
1	.052	.962	.907	.938	.063	.000	.085	.307
2	.053	.964	.897	.943	.050	.003	.065	.303
3	.118	.964	.893	.974	.079	.059	.012	.236

4	.104	.954	.800	.831	.093	.252	-.030	.223
5	.065	.970	.924	.957	.053	.648	-.082	.037
6	.061	.972	.924	.970	.037	.821	-.068	.094
7	.150	.969	.880	.014	.070	.238	-.159	.023
8	.063	.969	.881	.914	.070	.250	-.168	.031
9	.048	.978	.949	.981	.035	.000	.045	.178
10	.053	.964	.897	.943	.050	.003	.065	.303
11	.118	.981	.930	.966	.044	.067	.005	.133
12	1.00	.971	.888	.921	.069	.139	-.003	.098
13	.071	.958	.911	.939	.066	.743	-.032	.045
14	.067	.956	.894	.932	.059	.292	-.015	.080
15	.146	.952	.846	.871	.096	.931	-.061	.046
16	.070	.957	.860	.887	.088	.728	-.046	.025
17	.111	.894	.825	.862	.081	.097	.034	11.779
18	.111	.882	.797	.833	.090	.001	3.531	48.288
19	.115	.902	.839	.878	.077	.404	-6.439	2.334
20	.111	.874	.791	.825	.094	.305	-3.228	26.331

*Note:*

*Indirect effect or mediation is significant at the 0.05 level\*; 0.01 level \*\* and 0.001\*\*\**

*Models 1 to Models 16 are the single mediator models (see Appendix 14, 15, 16 and 17)*

*Model 17, Model 18, Model 19 and Model 20 are combined mediator models with both predictors (individualism and collectivism) along with all the mediators run together*

*Ind = Individualism; col = collectivism*



## Summary

Overall the results suggest that in general the single mediator models confirmed a better mediating effect on the relationship between the cultural orientation and self-enhancement as when the mediators were combined the model fit indices reduced. In general, it can be seen that for both the cultural orientation, i.e., for members from both cultural orientation activities on Facebook members indulge in has a partial negative mediating effect on self enhancement, such that increase in the active activities and increase in passive activities on Facebook decreased self-enhancement. However, when the mediators were combined in a single model increase in cultural orientation decreased Facebook activities (active, passive) and number of days and time participants invested on Facebook. Furthermore, increase in individualism cultural orientation decreased self-enhancement on collectivist attributes further confirming that members self-enhance on cultural specific attributes. The results also confirmed that members from both countries scored themselves higher on collectivist attributes when compared with their social contacts on Facebook. While this is something that was expected for the members from collectivist countries but not for members from individualist country as it was anticipated that they would score higher on individualist attributes. This further explains how the level of anonymity on SNS shifts focus of members from personal self to social self.

### 5.3.21.3. Online Perceived Social support

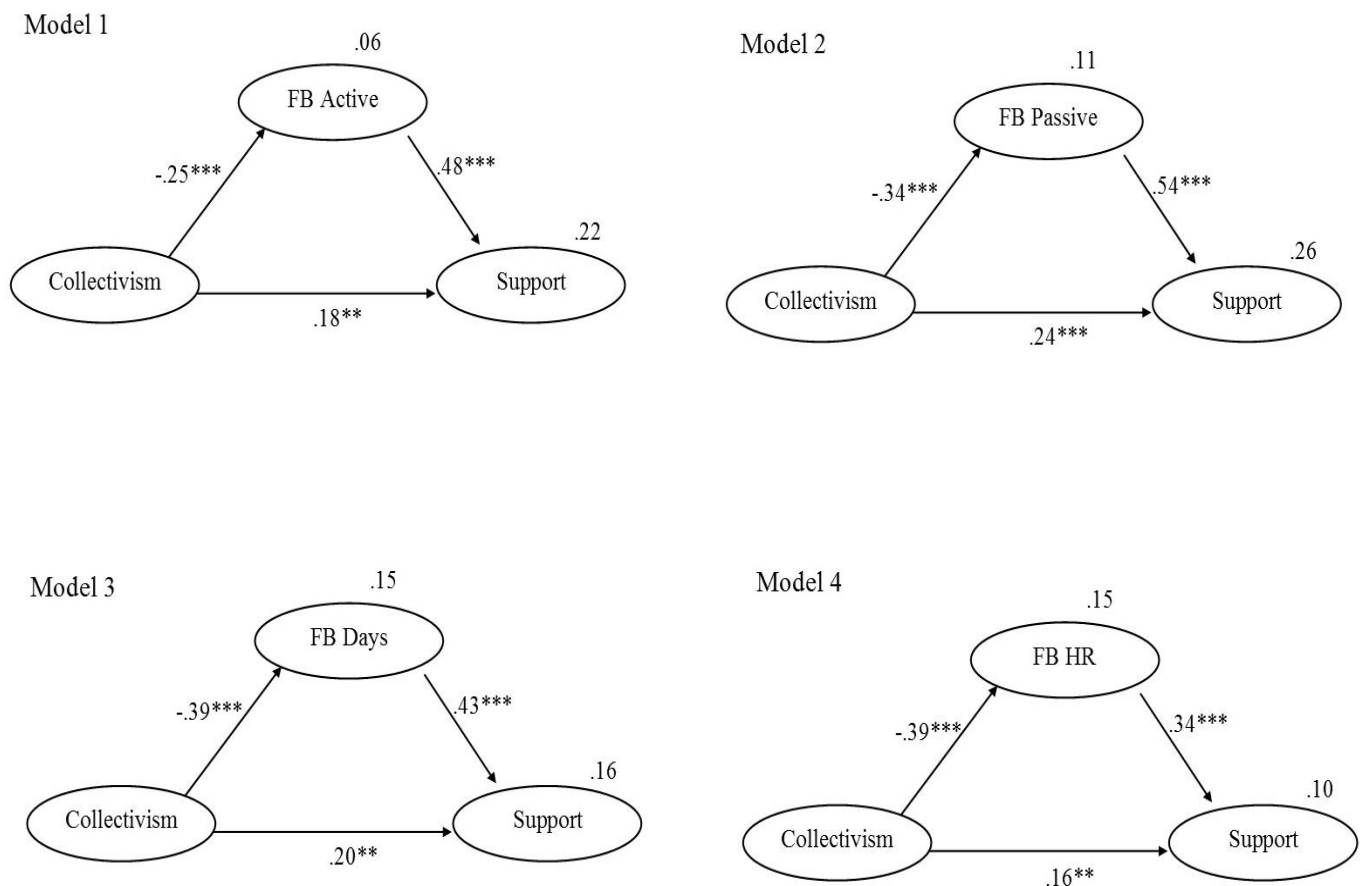
This model looked at the impact of cultural orientation (individualism/ collectivism) on how much members perceived the level of social support they received on SNS, like Facebook. While Models 1,2,3,4 (Figure 5.12) and Model 5,6,7,8 Figure (5.13) are the single mediator models and Figure 5.14 (see Appendix 10) combined models where all the four mediators are analysed together for each cultural orientation. Through these models, the below hypotheses are being evaluated:

**H6: Facebook activities (time and frequency) would mediate the relationship between culture and social support, such that the increase in user behaviour (Facebook activities and Facebook frequency) would increase perceived social support for its members in both cultures.**

Figure 5.12. Demonstrates that increase in collectivism reduces Facebook activities (FB Active: beta =  $-.63$ , FB Passive: beta =  $-.53$ , FB Days: beta =  $-4.14$  and FB HR: beta =  $-2.24$ ). However, increase in Facebook activities was seen to increase perceived social support members received online for collectivism (FB Active: beta =  $.34$ , FB Passive: beta =  $.58$ , FB Days: beta =  $.07$  and FB HR: beta =  $.11$ ).

Figure 5.12.

Models 1 to 4 Illustrates Standardized Path Coefficients of the Mediating Effect on Perceived Online Social Support using Collectivism as the predictor variable

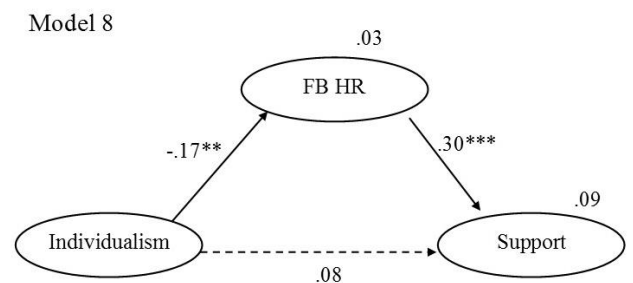
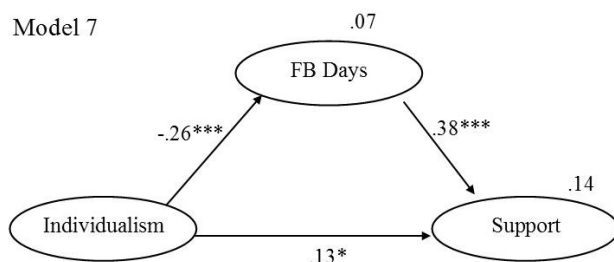
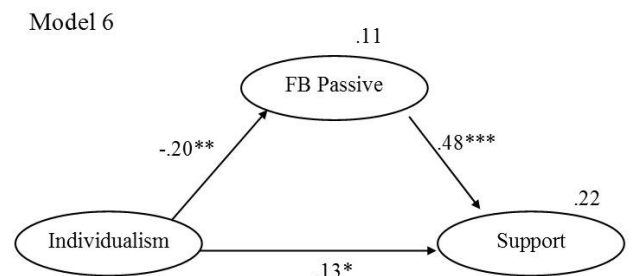
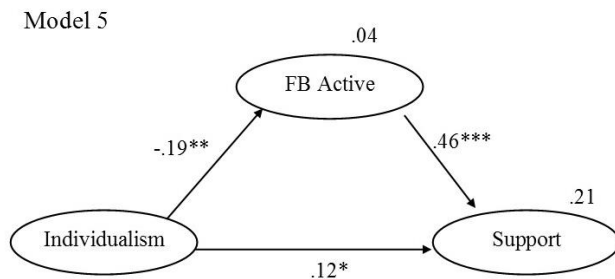


Note:

FB = Facebook; FB Active = active interaction on Facebook; FB Passive = passive interaction on Facebook; FB Days = average number of days' respondents had been on Facebook in the last 14 days and FB HR = average number of time (in minutes) respondents had been on Facebook in the last 14 days

Figure 5.13.

Models 5 to 8 Illustrates Standardized Path Coefficients of the Mediating Effect on Perceived Online Social Support using Individualism as the predictor variable



Note:

FB = Facebook; FB Active = active interaction on Facebook; FB Passive = passive interaction on Facebook; FB Days = average number of days' respondents had been on Facebook in the last 14 days and FB HR = average number of time (in minutes) respondents had been on Facebook in the last 14 days

Figure 5.13 also demonstrates that increase in levels of individualism decreased Facebook activities (FB Active:  $\beta = -.47$ , FB Passive:  $\beta = -.34$ , FB Days:  $\beta = -2.76$  and FB HR:  $\beta = -.90$ ) suggesting that increase in the levels of both cultural orientations reduce the use of SNS like Facebook. While Models 1234, see Figure 5.12 and Models 5,6 and 7 (see Figure 5.13) illustrates partial mediating effect of Facebook activities on perceived social support, Model 8 (see Figure 5.13) illustrates a full mediating effect of the number of hours' members use SNS (FB HR) on perceived social support. It is however seen that the decrease in Facebook activities is higher in collectivism than in individualism. The Model fit for all the models suggest that the models could be accepted as it suggest that the reproduced models matches with the original sample. These results support H6 as it is seen that the use of SNS, like Facebook helps members perceive that they receive social support online.

Figure 5.14. (see Appendix 10) demonstrates a combined model with all the mediators in study (FB Active, FB Passive, FB Days and FBHR). The figure demonstrates that when all the mediators are combined in the same model the Model fit seems to decrease. Model 9 demonstrates that the direct path FB active to support ( $\beta = -.09$ ,  $p > 0.05$ ) and FB Passive to support ( $\beta = 1.11$ ,  $p > 0.05$ ) has now become non-significant. The results in Model 9 also shows that the relationship between one's cultural orientation and perceived social support is partially mediated by the number of days (FB Days) one uses FB and the number of hours' participants spent on FB.

Model 10 also predicted a significant mediation effect with all the mediators combined. However, the path from FB Active to support ( $\beta = -.07$ ,  $p > 0.05$ ), FB Passive to support ( $\beta = 1.34$ ,  $p > 0.05$ ) and FBHR to support ( $\beta = .30$ ,  $p > 0.05$ ) were now non-significant. Interestingly the direct path from Individualism to Support is also non-significant ( $\beta = 1.52$ ,  $p > 0.05$ ) confirming full mediation. Unfortunately, all the Model fit indices confirm poor model fit as all the fit indices were above the acceptable range (see Table 5.12).

Table 5.12.

*Illustrates the Model Fit Indices, the Mediation Effect (Indirect Effect) & the Confidence Intervals for all the models for Perceived Online Social Support*

Model	RMR	GFI	NFI	CFI	RMSEA	Indirect effect	Lower bound CI	Upper bound CI
1	.066	.947	.943	.961	.069	.000	-.185	-.066
2	.057	.950	.938	.962	.058	.000	-.481	-.184
3	.189	.945	.940	.953	.087	.000	-.227	-.117
4	.092	.951	.945	.958	.081	.000	-.191	-.090
5	.058	.959	.957	.974	.057	.001	-.132	-.044
6	.052	.956	.949	.972	.050	.003	-.167	-.043
7	.180	.953	.951	.964	.077	.000	-.149	-.062
8	.082	.962	.960	.974	.065	.003	-.091	-.019
9	.139	.887	.876	.905	.079	.001	-2.913	-.896
10	.133	.875	.858	.887	.087	.002	-3.449	-.818

*Note:*

*Indirect effect or mediation is significant at the 0.05 level\*; 0.01 level \*\* and 0.001\*\*\**

*Model 11 is combined model with both predictors (individualism and collectivism) along with all the mediators run together*

*Ind = Individualism; col = collectivism*

**H7: Increase in the number of social contacts on Facebook would have a positive impact on perceived social support that members receive online.**

First, tests for differences between countries were carried out. Independent samples t-tests for perceived online social support and the total number of friends' members had on Facebook showed significant differences for both variables: Indonesian participants had a higher number of friends on Facebook ( $M = 47.45$ ,  $SD = 72.42$ ) than participants in UK ( $M = 25.83$ ,  $SD = 24.17$ ,  $t = -.078$ ,  $df = 424$ ,  $p < 0.05$ ,  $d = .40$ ). However, Indonesian participants scored lower on perceived social support ( $M = 2.72$ ,  $SD = .83$ ) than the UK participants ( $M = 3.42$ ,  $SD = .98$ ,  $t = 8.04$ ,  $df = 430$ ,  $p < 0.05$ ,  $d = 1.27$ ). Social support scores also differed in Study 1 as UK participants scored higher on perceived social support than participants in Indonesia (see Study 1, sub-section 4.33). For the overall sample, these findings would support the idea that, contrary to H7, a higher number of friends indicates lower levels of perceived social support. In order to take account of the country differences, separate correlations between number of friends and social support were calculated for both samples. Again, this failed to support H7 because correlations were close to zero and non-significant for Indonesian ( $r = .04$ ) and UK ( $r = .06$ ) participants.

Overall it seems that the activities on Facebook (both type of activities and time investment) helps members to get social support online. While it is important to be present on SNS to develop the relationship with other members on the social network thereby helping to increase the size of social network one has, it is evident that there exists cultural influence on such differences in the network size. Maintaining an acceptable and genuine network size has also been highlighted. While the single mediation models illustrated acceptable model fit indices, it reduced when the mediators were combined. The combined model where collectivism was used as a predictor variable supported the indirect effect of Facebook activities, which highlights that there might exist a close relationship between the mediators due to which the effect changes when analysed separately and when combined.

#### **5.3.21.4. Online Trust**

This model looked at the impact of cultural orientation (individualism/ collectivism) on trust members had for their social contacts on Facebook. All the model fit indexes were within the

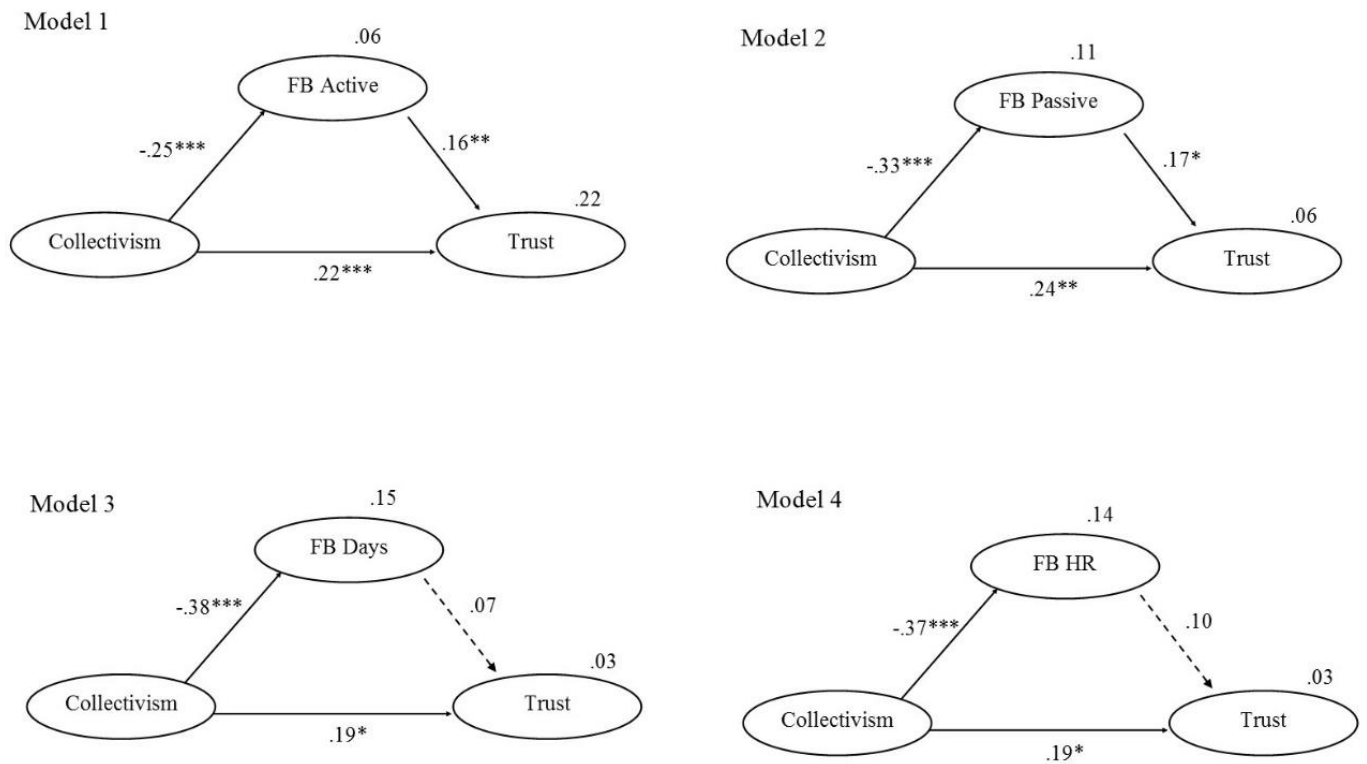
acceptable range suggesting that the models are representative of the original sample (see Table 5.13). Figure 5.15 demonstrates all the single mediator models (1,2,3,4) where collectivism was used as the predictor variable and Figure 5.16 demonstrates all the single mediator models (5,6,7,8) where the models were each time to gauge an understanding of the effect of mediators on the on online trust. The results below will be analysed under each hypothesis:

**H8. Activities and the frequency of Facebook use will mediate the relationship between culture and online trust, such that higher use of Facebook (activities and frequency) will increase online trust in both cultures.**

Results for the single mediator models (Figure 5.15 and 5.16) suggests that increase in use of Facebook had a positive impact on online trust scores. However not all the models had a significant mediation effect on online trust. Type of activities and time invested on Facebook had an indirect effect on online trust score, Facebook Active (beta = .08,  $p < 0.05$ ), Facebook Passive (beta = .12,  $p < 0.05$ ) and hours of Facebook (FB HR: beta = .02,  $p < 0.05$ ,  $p = < 0.05$ ), however the path from Facebook HR (FB Days: beta = .02,  $p > .05$ , CI: =.085, -.006) further confirming that the mediating effect was not strong which was supported by the fit indices as while RMR, GFI, NFI and CFI were fairly within acceptable range, RMSEA was high.

Figure 5.15.

Models 1 to 4 Illustrates Standardized Path Coefficients of the Mediating Effect on Online Trust with Collectivism as the predictor variable



Note: FB = Facebook; FB Active = active interaction on Facebook; FB Passive = passive interaction on Facebook; FB Days = average number of days' respondents had been on Facebook in the last 14 days and FB HR = average number of time (in minutes) respondents had been on Facebook in the last 14 days

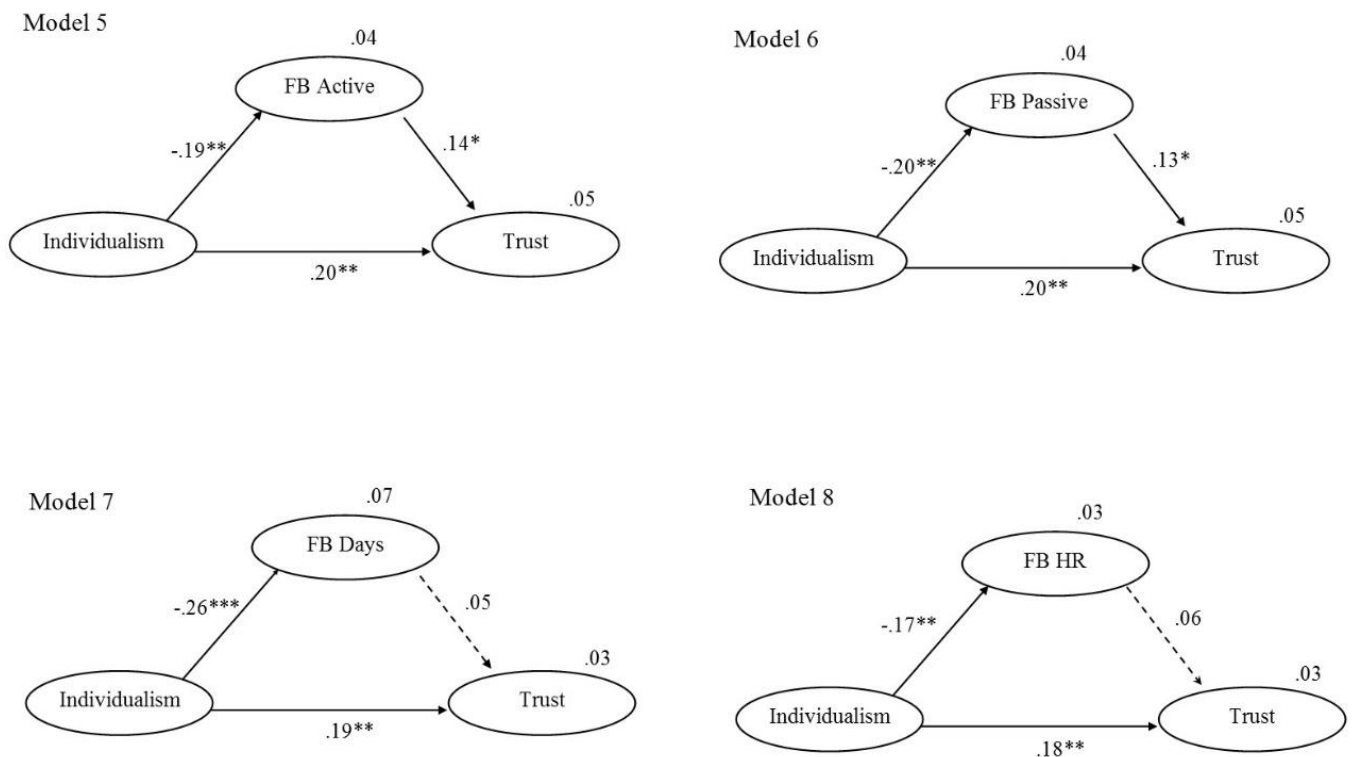
When individualism was used as a predictor variable Facebook Active (beta = .07,  $p < 0.05$  and Facebook Passive (beta = .09,  $p < 0.05$ ) further confirmed that the type of activities members indulged in had a significant mediating effect on trust scores. This confirms that the results partially



support H8, as while type of activities had an indirect effect on the level of trust members had for their members on SNS, like Facebook, however the frequency of Facebook use, i.e., the number of hours and number of days invested on SNS like Facebook does not have an impact on managing the level of trust among members online.

Figure 5.16.

Models 5 to 8 Illustrates Standardized Path Coefficients of the Mediating Effect on Online Trust with Individualism as the predictor variable



Note: FB = Facebook; FB Active = active interaction on Facebook; FB Passive = passive interaction on Facebook; FB Days = average number of days' respondents had been on Facebook in the last 14 days and FB HR = average number of time (in minutes) respondents had been on Facebook in the last 14 days

Model 9 (see Appendix 11) demonstrates that when all the four mediators were combined in the same model the direct effect from collectivism to trust which was significant in all the single models (Model 1, 2, 3 and 4; see Figure 5.15) now becomes non-significant ( $\beta = .91, p > 0.05$ ). The direct effect from FB Active to Trust ( $\beta = .03, p > 0.05$ ) and FB Passive to Trust ( $\beta = .57, p > 0.05$ ) which was significant before also became non-significant. However, the direct effect from collectivism to all the mediators was still statistically significant and had higher negative effect suggesting that when all the mediators are combined increase in collectivism reduces FB activities (FB Active and FB Passive) and also reduces the time members invest on Facebook (FB Days and FBHR) more than when the mediators are analysed separately. Similar effect was also seen in Model 10 where individualism was used as a predictor variable. An indirect effect was tested using a bootstrap estimation with 2000 samples (Shrout & Bolger, 2002) which indicated that the indirect coefficient was significant,  $\beta = .013$ , SE 90 % confidence interval = -3.674, -.471. However, when collectivism was used as a predictor using the same method, there was no statistically significant mediation effect found,  $\beta = .058, p > 0.05$ .

The results further confirm as unlike the single models where FB activities seems to have significant mediating effect (see Table 5.13) for both collectivism and individualism cultural orientation, however when the mediators were combined a significant mediating effect was only seen for individualism cultural orientation. Model 10 confirms that although the direct effect from Facebook activities becomes non-significant, type of activities and time members spend on Facebook does seem to mediate the relationship between individualism and online trust. Although increase in individualism in members seem to decrease online activities and time spent on Facebook. Therefore, confirming full mediation caused by the presence of the four mediators (FB Active, FB Passive, FB Days and FBHR) on the relationship between individualism and online trust for its members. Contrary to the single mediation model, Facebook activities reduced level of trust for members online, however the path was quite weak ( $\beta = -.01, p > 0.05$ ). The above results are also supported by acceptable model fit indexes (see Table 11). It is however seen that as more mediators were added in the model which increased the number of parameters, it reduced the model fit indexes (see Table 5.13).

Table 5.13.

*Illustrates the Model Fit Indices, the Mediation Effect (Indirect Effect) & the Confidence Intervals for all the models for Online Trust*

Model	RMR	GFI	NFI	CFI	RMSEA	Indirect effect	Lower bound CI	Upper bound CI
1	.047	.959	.938	.961	.060	.005	-.079	-.014
2	.038	.966	.940	.972	.042	.009	-.108	-.019
3	.120	.957	.926	.945	.079	.187	-.095	.008
4	.060	.957	.927	.946	.078	.048	-.085	-.006
5	.036	.977	.966	.989	.033	.011	.011	-.059
6	.032	.975	.957	.989	.027	.038	.038	-.064
7	.102	.977	.961	.979	.049	.296	.296	-.042
8	.042	.981	.968	.988	.037	.203	.203	-.034
9	.101	.897	.863	.897	.076	.058	-1.961	-.098
10	.093	.889	.843	.877	.083	.013	-3.674	-.471

*Note:*

*Indirect effect or mediation is significant at the 0.05 level\*; 0.01 level \*\* and 0.001\*\*\**

*Model 11 is combined model with both predictors (individualism and collectivism) along with all the mediators run together*

*Ind = Individualism; col = collectivism*

**H9: Levels of trust would differ due to cultural differences such that collectivists would score higher on the level of trust for their members than individualists.**

An independent sample t-test was run on the trust scores between UK and Indonesia which confirmed that the UK participants scored higher on the trust scale ( $M = 3.14$ ,  $SD = .69$ ) than the Indonesian sample ( $M = 3.09$ ,  $SD = .69$ ) as predicted however the difference in scores was not statistically significant ( $t = .694$ ,  $df = 430$ ,  $p > 0.05$ , two tailed) thereby failed to support H9. On the contrary Study 1 (see sub section 4.33) confirmed that there was a statistically significant difference in level of trust members had for their social contacts online as anticipated Indonesian participants scored higher on their level of trust online for their social contacts than UK participants.

To summarize, the above results demonstrates that while the single mediator models illustrates that the level of trust increased when mediated by the type of activities members indulged in, i.e., the activities on Facebook seem to help increase the level of trust for its members on Facebook. While the combined mediator model showed that there was a mediating effect on the level of trust when all mediators were combined, the direct path were non-significant. It could be that as highlighted that the mediators might be closely co-related due to which when combined, the effect changed. While Study 1 confirmed that members from collectivist countries did trust their social contacts online more than members from individualist countries, this difference could not be established.

### **5.3.21.5. Online Privacy Concern**

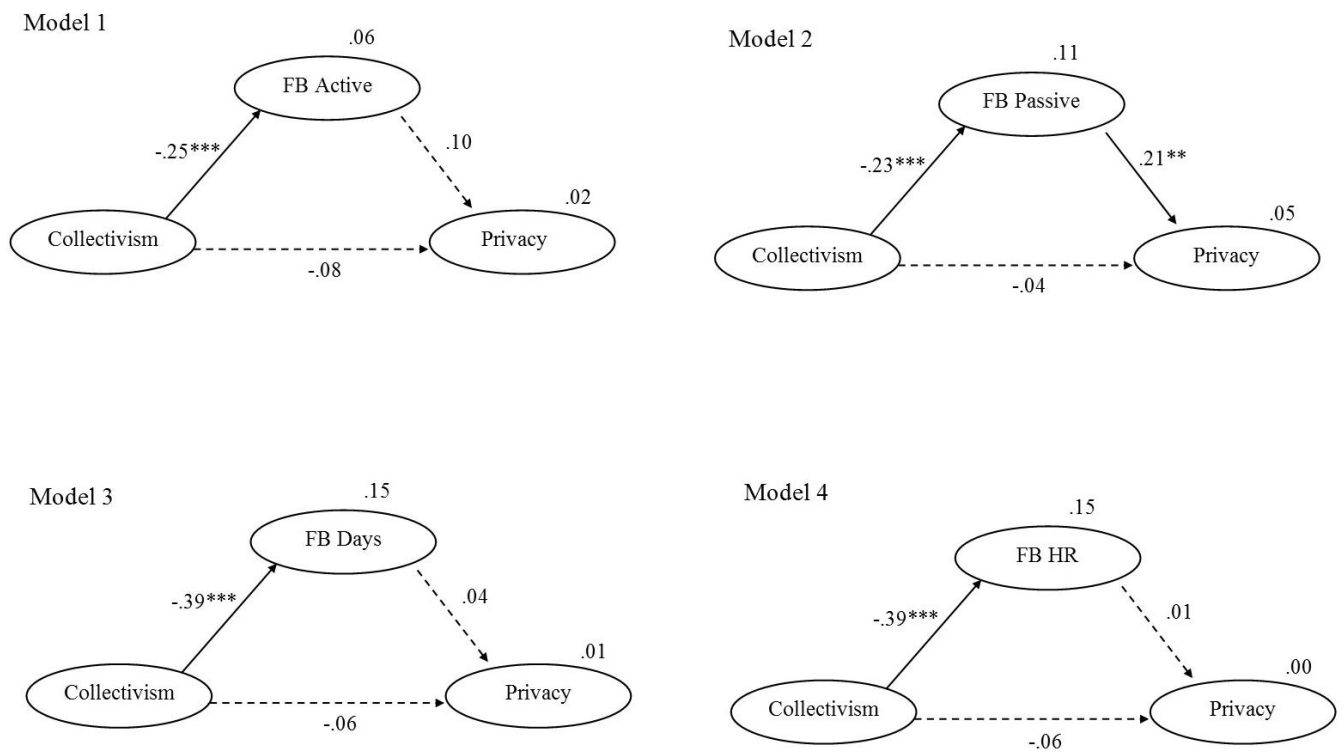
This model looked at the impact of cultural orientation (individualism/ collectivism) on how much members were concerned about their privacy when they communicate online. Figure 5.17. demonstrates all the models (1, 2, 3, 4) which consists of collectivism as the predictor variable and privacy as the outcome variable and Figure 5.18. demonstrates all the models (5,6,7,8) which consists of individualism as the predictor variable and privacy as the outcome variable. Their relationship was mediated by the presence of a third variable which are the mediators (FB Active, FB Passive, FB Days and FB Time). The results were analysed under each hypothesis.

**H10: There would be a negative relationship between Facebook activities (active & passive), Facebook frequency (days and hours spent) and online privacy concern, such that increase in Facebook activities and Facebook frequency would decrease privacy concern among online users.**

When collectivism was used as a predictor variable (see Figure 5.17) in the single mediator models, only passive activities (FB Passive: beta = .22,  $p < 0.05$ ) on Facebook mediated the relationship between cultural orientation and privacy concern and a full mediation effect was achieved ( $b=0.18$ ,  $p < 0.05$ ) which failed to support H10.

*Figure 5.17.*

Model 1 to 4 Illustrates Standardized Path Coefficients of the Mediating Effect on Online Privacy Concern using Collectivism as the predictor variable

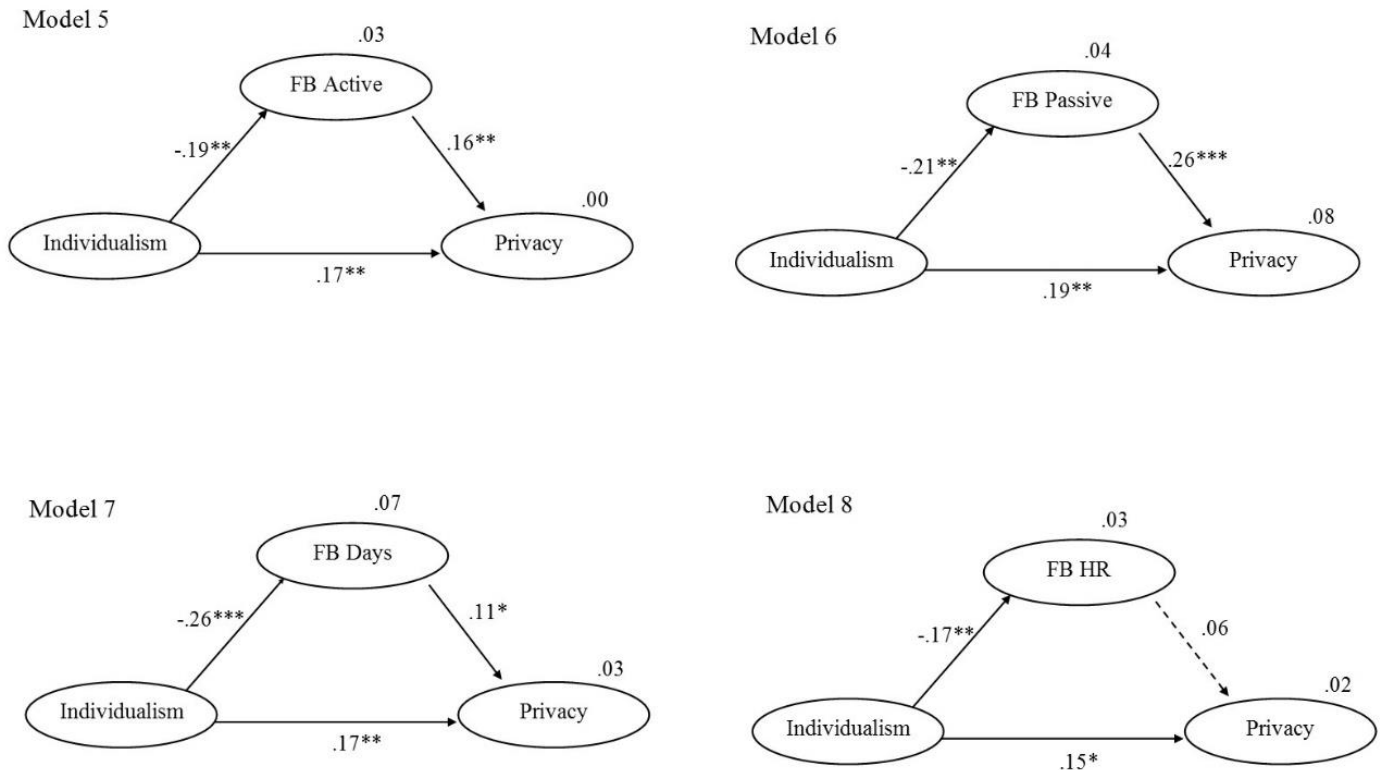


*Note: FB = Facebook; FB Active = active interaction on Facebook; FB Passive = passive interaction on Facebook; FB Days = average number of days' respondents had been on Facebook in the last 14 days and FB HR = average number of time (in minutes) respondents had been on Facebook in the last 14 days*

Whereas, individualism cultural traits seemed to demonstrate that Facebook activities (Active:  $b = .11$ ,  $p < 0.05$ ; Passive:  $b = 0.02$ ,  $p < 0.05$ ) both has a significant mediating effect on privacy concern on Facebook. Additionally, number of days' members spent on FB (FB days:  $b = .41$ ,  $p < 0.05$ ) also had a significant mediating effect on privacy concern and for all the models a partial mediation effect was achieved. Overall it was seen that increase in Facebook activities and number of days' members went on Facebook increased privacy concern among its users and also failed to support H10.

Figure 5.18.

Model 5 to 8 Illustrates Standardized Path Coefficients of the Mediating Effect on Online Privacy Concern using Individualism as the predictor variable



Note: FB = Facebook; FB Active = active interaction on Facebook; FB Passive = passive interaction on Facebook; FB Days = average number of days' respondents had been on Facebook in the last 14 days and FB HR = average number of time (in minutes) respondents had been on Facebook in the last 14 days

The combined model (see Figure 5.19, Appendix 12) demonstrates in both the model which tests both cultural orientation, suggests that increase in collectivism or individualism decreases Facebook activities (Active:  $b = -4.30$ ,  $p < 0.001$ ; Passive:  $b = -3.11$ ,  $p < 0.001$ ) and Facebook frequency (FB Days:  $-17.19$ ;  $p < 0.001$ ; FBHR:  $b = -8.80$ ,  $p < 0.001$ ) such that the more collectivist or individualist one is the lesser they would be using Facebook. When collectivism was used as the predictor variable, the indirect effect non-significant,  $b = .369$ ,  $p > 0.05$  but the indirect effect

was statistically significant  $b = .002$ ,  $p < 0.01$ , when individualism was used as the predictor variable. This further suggests that individualism was associated with approximately .002 increase in privacy concern as mediated by FB activities and FB frequency. Although the path from mediators to the outcome variable (DV) was not significant in the combined models (Model 9 & Model 10) which tests all the four mediators at the same time are not significant, the single mediator models which tests each mediator one by one (Models 2, 5, 6,7, see Figure 5.17 and Figure 5.18) confirms that FB activities (passive) where members are more inclined in passively looking through their Facebook contacts for collectivist orientation ( $b = .018$ ,  $p < 0.05$ ) & for individualist orientation both (active:  $b = .011$ ,  $p < 0.05$  and passive;  $b = .002$ ,  $p < 0.05$ ) activities, where members indulge in not just spying around the activities of their social contacts but also interacting with their social contacts. Additionally, increase in the number of days' members use Facebook (FB Days) increases concern for online privacy on Facebook ( $b = .042$ ;  $p < 0.05$ ), which again failed to support H10. The model fit indexes however is reduced with the inclusion of all the mediators in one model (see Table 5.14). All the model fit indexes have gone above the acceptable fit range and this fit range is further compromised when both the cultural constructs (individualism and collectivism) are entered together in one model. The single mediator models however all had acceptable fit ranges. Model 11 which combined all both the cultural orientation (individualism and collectivism) in one model along with the four mediators has not been discussed further as it failed to meet the model fit indices (see Table 5.14).

Table 5.14.

*Illustrates the Model Fit Indices, the Mediation Effect (Indirect Effect) & the Confidence Intervals for all the models for Online Privacy Concern*

Model	RMR	GFI	NFI	CFI	RMSEA	Indirect effect	Lower bound CI	Upper bound CI



1	.060	.951	.905	.925	.087	.143	.003	-.067
2	.050	.959	.911	.941	.063	.018	-.128	-.020
3	.134	.952	.875	.891	.110	.533	-.064	.027
4	.067	.951	.877	.894	.108	.907	-.054	.038
5	.048	.978	.960	.981	.044	.011	-.061	-.010
6	.044	.973	.944	.975	.042	.002	-.109	-.018
7	.112	.984	.962	.980	.048	.041	-.069	-.006
8	.044	.990	.974	.994	.026	.256	-.038	.004
9	.108	.886	.835	.865	.090	.369	-1.757	.329
10	1.00	.878	.815	.844	.097	.002	-4.562	-.811

*Note:*

*Indirect effect or mediation is significant at the 0.05 level\*; 0.01 level \*\* and 0.001\*\*\**

*Model 11 is combined model with both predictors (individualism and collectivism) along with all the mediators run together*

*Ind = Individualism; col = collectivism*

**H11: Privacy concern will be more explicit among members from collectivist cultures than members from individualist cultures, such that collectivists would score higher in their privacy concern than individualists.**

An independent sample t-test was run on participants scores on online privacy concern between countries and the results confirmed that Indonesian participants scored higher on online privacy score ( $M = 3.11$ ,  $SD = .55$ ) than participants in UK ( $M = 2.97$ ,  $SD = .80$ ),  $t = -2.17$ ,  $df = 430$ ,  $p < 0.05$ , two tailed however it had a weak effect size, ( $d = .20$ ) suggesting that the members from collectivist countries are more concerned than the members from individualist countries which

supports H11. However, as the difference in mean is quite small (Mean difference = .14), which probably effects the effect size.

To summarize, the results confirms that increase in cultural orientation whether individualism or collectivism decreases use of Facebook both in terms of activities and frequency of use which meet. As members from collectivist countries prefer maintaining their group identity, it reflects on their ratings on privacy concern as they were slightly more concerned about their online privacy than the members from individualist countries. However, the results also confirmed that the members from individualist countries also showed concern about their privacy when they used SNS. Facebook activities and the number of days' members spent on SNS, like Facebook increase the privacy concern for its members as when members invest their time to interact through the various activities they indulge in with their social network on SNS, they get personal information from other members which helps to predict their behaviour in advance. As members from collectivist countries are more cautious they become more concerned about maintaining their privacy online.

## **5.9. Summary of Results**

### **a) Online Group Identity**

The results suggest that irrespective of whether members were collectivist or individualist, i.e., whether they scored higher on collectivist attributes or individualist attributes, the time spent members invested on Facebook helped members in group identification not the type of activities members are indulged in. This could be explained by the fact that when members spend time interacting with their social group, it would help them to identify themselves with other members. It could also be argued that when members become part of a group, their availability on SNS helps others in the group to evaluate their loyalty and commitment towards the group. The results also confirmed that Indonesian participants identified with their group members more than the UK participants, which was expected as their social network on SNS would generally consist of a higher number of social contacts with whom they might have established offline relationships.

### **b) Online Self-Enhancement**

The results confirm that activities on SNS, like Facebook reduced feeling of self-enhancement for members from both cultural orientations. This could further be explained when members invest more time on Facebook, they end up consuming more information about others on Facebook and this might have a negative impact on their self-perception as members might start comparing their personal achievements in comparison to others. The results further confirm that members on Facebook self-enhance on cultural specific traits as it was seen that increase in individualism decreased self-enhancement on collectivist attributes. However, results also confirmed that participants in UK scored themselves higher on individualist traits than the Indonesian participants which was expected, Interestingly, UK participants also scored themselves higher on collectivist attributes when compared with others. This could be due to the cultural specific behaviour as members from collectivist country (Indonesia) believe in being humble whereas members from individualist (countries) believe in showcasing their positive attributes more openly. Additionally, it could also be due to the fact that as SNS, involves more collective behaviour, there seems to be a shift from personal self to the collective self as has been supported by SIDE.

### **c) Perceived Online Social Support**

The results confirmed that use of SNS, like Facebook and investing time to interact with others not just opened the potential of increasing the network size but it also increased the potential of being able to access support in an online environment from a wider population which was not possible before. This was also supported by significant mediation effect which confirmed that Facebook activities (active and passive) and Facebook frequency (number of days and the number of time one invests) on Facebook has a positive mediating effect on relationship between culture and perceived social support online. This highlights how important SNS has become and thus could also be utilized as a platform where members receive social support from their social group.

### **d) Online Trust**

The single models confirmed that for both cultural orientation increase in FB activities increased trust for their members. While the combined mediator model showed a significant mediation effect, activities on Facebook did not have any direct effect. This could be due to the existence of correlation with the other mediators which resulted in a significant mediation effect.

Although UK participants scored higher than the Indonesian participants on the trust scale as predicted, the difference in scores was not statistically significant.

#### **e) Online privacy concern**

The results suggest that increase in Facebook activities (active and passive) and the number of days' members used Facebook increased privacy concern on Facebook. While collectivism cultural orientation seemed to only have an effect on online privacy concern mediated by passive activities on Facebook, i.e., by passively using Facebook, members with collectivist cultural orientation would become more concerned about their privacy online. Additionally, members from individualist cultural orientation would become concerned about their privacy online by interacting actively as well as passively on Facebook. This can be explained as members on Facebook increase their interaction on Facebook, they get to know their social contacts more, which makes them more concerned about their privacy online. As SNS is a platform where members can choose their social contacts and form their social groups, members might not always be comfortable in sharing information comfortably to all group members. As members from collectivist countries prefer maintaining their group identity, it reflects on their ratings on privacy concern as they were slightly more concerned about their online privacy than the members from individualist countries. However, the results also confirmed that the members from individualist countries did show concern about their privacy when they used SNS

It is important to point out that while attempt was made to use the combined models in most cases, however due to the poor model fit indices, it was decided that results from the single mediator models be included in the analysis. For all the constructs, the single models had a better model fit than the combined models. The next chapter will now discuss the “Study 3” which was the experimental study (scale development) that helped to further refine “Study 4” which was the experimental study.

## Chapter 6

### Study 3: Experiment (*Operationalization*)

#### 6.1. Rationale for this study

The role of culture is important in the development of one's self-construal and how members perceive the environment around them, which also has an impact on their decisions and behaviours. While members from collectivist countries will have a self-construal with collectivist attributes that promotes interdependence, members from individualist countries will develop a self-construal with individualist attributes that promote independent attributes (Hofstede, 1980; Markus & Kitayama, 1991; Oyserman & Lee, 2008). Therefore, being able to understand the change in cultural behaviour could be achieved by manipulating the cultural selves which could be achieved by priming (Gardner et al., 1999). While the previous two chapters were based on responses from online surveys, this chapter and the next will present the results and analysis of the priming experiments that were conducted across the UK, India and Indonesia. In order to better assess the causal impact of cultural orientation it was important to pursue experiment-based evidence that would help to justify the causal role assigned to cultural self-construal in the analyses of the survey data. Furthermore, while the online survey results are determined by the variability in responses that participants brought with them, the experiments further helped to measure the causal strength of cultural factors by directly influencing their variability (see Figure 2.2 Visual Illustration for the Research Overview) which illustrates the research framework for this thesis. A paper-and-pencil method of experimentation was used as this helped to gain access to the different populations and was simple to administer. This chapter will discuss the 'operationalization stage' during which the focus was on the development of the priming manipulation and also collect participant feedback on the overall participant experience. As such, the present chapters can present preliminary findings only. The next chapter (Chapter 7) will then discuss 'Study 4: Main experimental study' along with its findings.

## **6.2. Method**

### **6.2.1. Participants**

80 university participants were recruited as an opportunity sample from UK (N = 43) and India (N = 37) with an average age of  $M = 23.14$  ( $SD = 5.02$ ) and an age range between 18 to 41 years.

### **6.2.2. Procedure**

The survey was conducted in paper format for all participants in the UK and in India. For the Indian sample a translated version of the survey was used. The survey lasted for approximately 15-20 minutes. Full participant consent was attained before their participation in the survey and were also given the chance to enter in a lottery draw to win gift voucher as a thank you for their participation which was completely voluntary.

### **6.2.3. Material & Description of items**

All the priming tasks and the measure for the effect of priming had been adapted from previous validated research. All the tasks used had high effect sizes and has been used in inter-cultural context before. As the priming tasks were short tasks therefore it was decided to combine all the three tasks (The pronoun circling task, short writing task & Sumerian story task) in order to enhance the priming effect. The demographic information of the participants was collected and coded as below:

Gender coded as 1 for male and 2 for female, age in years, ethnicity coded as 1 for respondents with western ethic and 2 for any eastern ethnicity, work coded as 1 for employed –full time, 2 for employed – part time, 3 for unemployed, 4 for student – full time, 5 for student – part time, country of residence, coded as 1 for UK and 2 for India, nationality coded as 1 for British and 2 for Indian and first language of the participants which was coded as English as 1 and Bengali as 2.

This was followed by cultural self-construal measured by a scale adapted from (Singelis, 1994). The scale consisted of 12 items measuring the collectivist self-construal (Cronbach's  $\alpha = .61$ )

and consisted of 12 items measuring the individualist self-construal (Cronbach's  $\alpha = .57$ ) of the participants. Item wordings in the scale were modified slightly to fit in with the online environment and the research aims. For a full list of the items see Appendix 3. The scale was measured on a 5 point Likert scale ranging from "Disagree strongly" coded as "1" to "Agree strongly" coded as "5" where "1" was the least score and "5" was the highest score on the scale which indicated levels of collectivist orientation for the collectivism self-construal scale and levels of individualism for the individualism self-construal scale. The design of the experiment was framed in such a way so that at first the questionnaire helped to establish the cultural orientation of the participants and then participants were exposed to the priming tasks which hoped to manipulate their cultural selves. Participants were asked to respond to further tasks which checked whether their decisions they made after they were primed changed with the cultural orientation they were primed with. For example, if participants scored higher in the level of collectivism prior to priming, then they would score higher in their collectivist self-descriptions when primed with their consistent cultural orientation than when they are primed with inconsistent cultural orientation. Similar effect would be expected when participants are given individualism version as participants who scored higher on individualism self-construal scale prior to priming, would score higher in self-descriptions related to individualist attributes when primed with individualism version of the questionnaire than when they are primed with the collectivist version of the questionnaire. Participants were randomly given the two versions of the questionnaire. For the Indian sample, the study was conducted with the researcher on site to help with any queries or questions on the spot. A combined score was also calculated to check the scores for collectivist and individualist self-construal before priming. The overall score for collectivism before priming was computed by including all the items in the self-construal scale that measured interdependence and the reversed scored items which measured the independent self-construal. Similarly, for computing the overall score on individualist self-construal before priming, all the items in the self-construal scale that measured independent self-construal was included and the reversed scored items measuring the interdependence self-construal was taken. These two overall scores were both standardized using a z-transformation.

The participants were subjected to a combined priming manipulation consisting of three procedure established in the research literature. Tasks were selected based on their format, but also on effect sizes reported in the overview provided by Oyserman and Lee (2008). First, participants

were asked to work on a pronoun circling task adapted from (Brewer & Gardner, 1996) and Gardner et al. (1999, study 1). Documented effect sizes for this task ranged from  $d = 0.24$ , for European Americans, to  $d = 0.84$ , for Hong Kong Chinese participants (see Oyserman & Lee, 2008). The task consisted of a text passage that described a trip to the park and respondents were asked to read the passage and circle all the pronouns in the passage. The two conditions of the pronoun circling task were created by setting up an independent version of the text where the pronouns were “I, mine, me, and myself” and an interdependent version where the pronouns were “we, they, us, and ourselves”. For collectivism priming the text ran: “We go to the park. Our excitement fills us when we see the ice-cream van. We allow ourselves to explore every corner of the park, never letting other people distract us. Our voice fills the air and street. We window shop and everywhere we go we see our reflection looking back at us in the glass from the shops we walk past. When we return home, our hearts fill with joy and happiness as we know that we will soon return back in the park. The park belongs to us”. For individualism priming the text was: “I go to the park. My excitement fills me when I see the ice-cream van. I allow myself to explore every corner of the park, never letting other people distract me. My voice fills the air and street. I window shop and everywhere I go I see my reflection looking back at me in the glass from the shops I walk past. When I return home, my hearts fills with joy and happiness as I know that I will soon return back in the park. The park belongs to me”.

The priming manipulation was further reinforced by additional tasks. Participants were next primed with a short writing task adapted from (Trafimow, Triandis, & Goto, 1991) which had a previously reported average effect size of  $d = 0.42$  (conducted on participants in the U.S.; see (Oyserman & Lee, 2008). Instructions for individualism priming were: “For the next two minutes you will need to write 2 sentences based on these instructions below: a) Please think of what makes you different from your family and friends?, b) What is your personal goal for the next 1 year?”. For collectivism priming participants were instructed as follows: “a) Please think of what you have in common with your family and friends?, b) What is your goal for the next 1 year in relation to your family and friends?”. In order to increase participants’ engagement with the procedure they were asked in both conditions to first think about the task and then to write down their response in the survey. This differed from the original study conducted by (Trafimow et al., 1991) where participants did not have to write anything, but had to just think about the task for two minutes.



The final reinforcement of the priming manipulation was achieved with two versions of the ‘Sumerian story’, an interdependence-focused or independence-focused story of a general who was in a dilemma when he had to choose an appropriate and deserved warrior to send to his king. This method was adapted from (Gardner et al., 1999; Trafimow et al., 1991) and had previously shown an effect size of  $d = 0.88$  (conducted on European Americans; see Oyserman & Lee, 2008). The interdependent version of the story was: “Sostoras, a warrior in ancient Sumer, was largely responsible for the success of Sargon I in conquering all of Mesopotamia. As a result, he was rewarded with a small kingdom of his own to rule. About 10 years later, Sargon I was conscripting warriors for a war. Sostoras was obligated to send a detachment of soldiers to aid Sargon I. He had to decide who to put in command of the detachment. After thinking about it for a long time, Sostoras eventually decided on Tiglath who was a member of his family. This appointment had several advantages. Sostoras was able to show his loyalty to his family. He was also able to cement their loyalty to him. In addition, having Tiglath as the commander increased the power and prestige of the family. The independent version of the story was: “Sostoras, a warrior in ancient Sumer, was largely responsible for the success of Sargon I in conquering all of Mesopotamia. As a result, he was rewarded with a small kingdom of his own to rule. About 10 years later, Sargon I was conscripting warriors for a war. Sostoras was obligated to send a detachment of soldiers to aid Sargon I. He had to decide who to put in command of the detachment. After thinking about it for a long time, Sostoras eventually decided on Tiglath who was a talented general. This appointment had several advantages. Sostoras was able to make an excellent general indebted to him. This would solidify Sostoras's hold on his own dominion. In addition, the very fact of having a general such as Tiglath as his personal representative would greatly increase Sostoras's prestige. Finally, sending his best general would be likely to make Sargon I grateful. Consequently, there was the possibility of getting rewarded by Sargon I”. In both the versions participants were then asked if they admired Sostoras for his decision. These responses, in line with previous studies, were taken as an indication that participants had engaged with the story and were not actually considered for analysis.

This was then followed by the Twenty Statements Task (TST) adapted from (Gardner, Gabriel, & Lee, 1999; Kuhn & McPartland, 1954) which had an average effect size  $d = 0.67$ , see (Oyserman & Lee, 2008) and was the DV which helped to establish the effect of priming on participant responses. Given the brevity of the experimental procedure, and the manipulation in particular, it

was decided not to repeat the cultural self-construal scale from the beginning. This would have allowed for an easy comparison of values pre and post priming, but would have required participants to fill in exactly the same measure within a few minutes. The TST was chosen as an equivalent but alternative measure of self-construal. Participants were asked to give 20 self-descriptions of themselves. Responses were then coded as independent, coded as “1”, if respondents described a person attribute (trait, feeling, physical descriptor or attitude – e.g., “I am selfish”) and as interdependent, coded as “2”, if they described a collective relationship or membership with other group – e.g., “I am happy to be with my family”. A total score for each participant was calculated and the overall scores were standardized using z-transformation. Finally, participants were thanked for their participation and were debriefed. The below section will now look at the results and analysis of this first experiment.

### **6.3. Results and Analyses**

This section will discuss the results and the analysis that followed after the data collection which will follow with a brief summary.

#### **6.3.1. Data screening and preliminary analysis**

Data was analysed using SPSS version 23. The threshold for significance was set to  $\alpha = 0.05$  for all decisions. Prior to in-depth analysis data were first screened to check for missing data and outliers. Boxplots and subsequent checks revealed the presence of some outliers and missing data which was coded as 99 in SPSS. The assumptions of normality were also checked through and inspection of skewness or kurtosis for each variable. Normality of the data was accepted if the distribution of a variable, i.e., both skewness and kurtosis, showed acceptable properties ( $z < 2.58$ ) (Hair et al., 2006).

Table 6.1. Below demonstrates the characteristics of the participants. The overall mean age of the UK respondents was 21.97 years ( $SD = 3.24$ ) with a range between 18 and 33 years. The mean age of the Indian respondents was 22.75 years ( $SD = 6.17$ ) with a range between 18 and 47 years suggesting sufficient variation of age in the data, comparable across countries. Although a large majority of participants came from a student population, the sample also showed participation from working members (see Table 6.2).

Table 6.1.

*Illustrates the Descriptive statistics for participants in Study 3*

Variable	Mean (SD)/ Frequency	Range/ Percentage
<b>Overall (N= 70, missing 1)</b>		
<b>Age (years):</b>		
UK	21.97 (3.24)	18-33
India	22.75 (6.17)	18-47
<b>Country:</b>		
<b>UK: N = 34; India: N = 36, missing 1)</b>		
<b>Gender:</b>		
UK : Male	12	35.3
: Female	22	64.7
India : Male	05	13.9
: Female	31	86.1

*Note: Overall represents both UK and Indonesia combined*

*Age: Missing from Indian Sample N = 1*

Table 6.2.

*Ethnicity and work characteristics of the participants in Study 3*

Variable	Frequency	Percentage
<b>Overall (N= 71)</b>		
<b>Ethnicity:</b>		

UK: British	34
India: Bengali	37

**Work:**

UK: (N = 34)

Employed (full time)	2	5.9
Employed (part time)	3	8.8
Unemployed	-	-
Student (part-time)	-	-
Student (full-time)	29	85.3

India: (N = 36; missing N = 1)

Employed (full-time)	2	5.6
Employed (part-time)	1	2.8
Unemployed	-	-
Student (part-time)	4	11.1
Student (full-time)	29	80.6

---

Note: Overall represents both UK and Indonesia combined

The next step was to understand the relationship between the variables in the study for which a Pearson's bivariate correlation was conducted using SPSS version 23 (see Table 6.3). Table 6.3. confirms that there were some significant relationships between variables used in the study. For example, increase in collectivism before priming decreased scores on individualism before priming as there was a negative correlation between these two items ( $r = -.999$ ,  $p < 0.01$ ) as expected. Furthermore, increase in age increased gender ( $r = .290$ ,  $p < 0.05$ ) suggests that as age

increase, there is an increase in female members on SNS. Country was coded as 1 for UK and 2 for India. The results below confirm that Indian participants had a higher score on the prime after test which was the scores on TST scale ( $r = .345, p < .001$ ), higher country score also increased individualism score before priming ( $r = .364, p < 0.01$ ), increase in collectivism score before priming ( $r = .368, p < .001$ ), which confirms that the Indian participants had higher scores on both cultural traits. Increase in country also increased gender ( $r = .249, p < 0.05$ ) which confirms that there were a higher number of female participants in the Indian sample. The results clearly highlighted that there existed a correlation between the country differences and among most of the variables used in the study due to which it was decided that country along with priming be used as fixed factor.

Table 6.3.

*Demonstrates the Inter-Correlation of the variables in Study 3*

	Prime After	IND Before	COLL Before	Prime Condition	Gender	Age	Country
<b>Prime After</b>	1						
<b>IND Before</b>	-.039	1					
<b>COLL Before</b>	.047	-.999**	1				
<b>Prime Condition</b>	.181	-.168	.163	1			
<b>Gender</b>	.190	-.021	.017	-.046	1		
<b>Age</b>	-.013	-.174	-.178	.144	.290*	1	
<b>Country</b>	.345**	.364**	.368**	.121	.249*	.079	1

Note: Correlation is significant at the 0.05 level (2-tailed) \*

Correlation is significant at the 0.01 level (2-tailed) \*\*

Prime After = score after priming on TST scale, IND Before = score of individualism before priming,

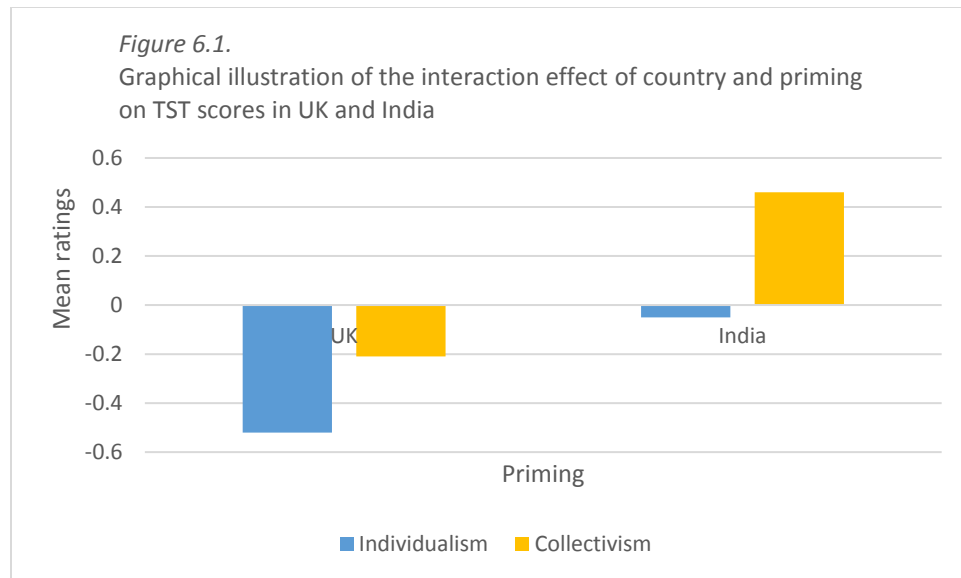
COLL Before = score of collectivism before priming

N = 71

A 2 (country type: UK vs India) x 2 (prime type: independent vs interdependent) analyses of covariance (ANCOVA) was used to analyse the effect of priming on the standardized TST (UK: Mean = -.33, SD = .92; India: Mean = .32, SD = .88) scale. The mean score of self-construal scale (collectivism before priming (UK: Mean = -.38, SD = 1.04; India: Mean = .34, SD = .80) and individualism before priming (UK: Mean = .37, SD = 1.04; India: Mean = -.34, SD = .81) along with age and gender was used as a covariate to eliminate the effect of any variance on the final scores.

No significant main effect was found for priming conditions on the TST scores  $F(1,61) = 2.69$ ,  $p = .11$ , partial  $\eta^2 = .04$  which confirms that priming failed to show any effect on participant responses. There was a significant main effect for country found on the TST scores  $F(1,161) = .15$ ,  $p = .03$ , partial  $\eta^2 = .07$  suggesting that participants in the UK scored less on the TST scale ( $M = -.37$ ) than participants in India ( $M = .21$ ) and the difference in the two groups was significant  $p = .03$ . However, there was no significant interaction found between priming conditions and country  $F(1,61) = .15$ ,  $p = .70$ , partial  $\eta^2 = .00$  which was reflected in the weak effect see Figure 6.1.

No significant main effect was found for collectivism before priming:  $F(1,61) = 1.89$ ,  $p > 0.05$ , partial  $\eta^2 = .03$ , individualism before priming  $F(1,61) = 1.96$ ,  $p > .05$ , partial  $\eta^2 = .03$ , gender  $F(1,61) = .72$ ,  $p > .05$ , partial  $\eta^2 = .01$  and age  $F(1,61) = .14$ ,  $p > .05$ , partial  $\eta^2 = .00$ .



As priming failed to show any significant effect, further analysis was conducted where country was **not** used as a covariate in a between subject analysis of covariance (ANCOVA). The results confirm that the effect of priming condition did not change  $F(1,61) = 2.62$ ,  $p = .11$ , partial  $\eta^2 = .04$ . This again failed to show any changes in the effect on priming.

## 6.4. Summary

Study 3 confirmed that there existed a relationship between variables, however while the main aim of this study was to understand if the priming conditions would have an effect on participant responses on the TST task, it could not be established. Even ruling out the effect of country on the participant scores on the TST scale, the effect of the priming conditions could not be achieved. It is however argued that this could be due to the sample size or the task itself. Therefore, this called for further exploration in Study 4.

## 6.5 Changes made after completion of Study 3

While Study 3 failed to show any significant effect of priming conditions on participant responses, it was important to evaluate if this was due to the study itself. Therefore, after completion of the study, feedback from participants was collected and analysed to help develop

Study 4. All the feedback was checked and amendments were made after considering how the manipulation could be strengthened. The feedback received was quite similar to the ‘Study 1 – online survey’. Some of the comments made were focused on issues of instruction and communication (‘more clarity required’, ‘could not relate to Sastoras task’ (this was the Sumerian warrior task) and ‘the names of the characters sounded similar’, ‘the twenty items tasks were too long’). This was in line with some additional face-to-face feedback obtained during data collection.

On the basis of the feedback received, the instructions for the tasks were made clearer and shorter, e.g., for the TST in Study 3 the instructions were: ‘There are twenty number blanks on the page below. Please write twenty answers to the simple question ‘Who am I?’ in the blanks. Just give twenty different answers to this question. Answer as if you were giving the answers to yourself, not to somebody else. Write the answers in order that they occur to you. Don’t worry about the logic or ‘importance’. Go along fairly fast as time is limited’. For the amended version for Study 4 this was changed to: ‘There are ten number blanks on the page below. Please write ten answers to the simple question ‘Who am I?’. Just give ten different answers to this question. Answer as if you were giving the answers to yourself, not to somebody else. Write the answers in order that they occur to you. Don’t worry about the logic or ‘importance’. Go along fairly fast as time is limited. For example: I am "a student", I am "a daughter"., etc.

In order to better capture cultural orientation of the participants, the measures were reconsidered and a one item scale was also introduced which highlighted cultural traits and behaviours (see Markus & Kitayama, 1991). Additionally, the name of the king in the ‘Sumerian warrior story’ was changed from ‘Sargon 1’ to ‘Gilgamesh’. Furthermore, in the ‘Pronoun circling task’, participants were also asked to in addition to circling the pronouns they were also required to count the number of pronouns. This was done to enhance participant engagement with the task. Also, in the Twenty Item Test (TST), the number of self-descriptions was reduced from 20 to 10. An additional self enhancement scale consisting of 7 collectivism measuring attitudes and 7 individualism measuring attitudes were included in the questionnaire which was measuring before and after the priming tasks. Other additional scales that were included were ‘Online Trust scale’, ‘Online Privacy scale’, ‘Online group identification scale’, ‘Online Social Support scale’ & several scenarios (which will be discussed in detail in the Chapter 7).



Additionally, while it was seen that the scale reliability of some of the items like the cultural self-construal scale only achieved a medium scale reliability it was decided that all the 24 items would now be included in the study as the reduced version might have affected the scale reliability score. It was also decided that the individual self-construal items and the collectivism measuring items would be kept as separate individual scales. Additional to this the items in the self enhancement scale which measured the collectivist self attributes had a moderate scale reliability (Cronbach alpha = .56), however for the items that measured the individualism measuring attributes was high (Cronbach alpha = .70). It could be argued that the difference in the values could be due to the small sample size, hence it was decided to be used in the final survey as the items had been validated in past research (Gaertner et al., 2008). The attributes were further validated in the pilot study conducted by Sedikides et al. (2003). After the amendments were confirmed the final version of the survey was developed on Bristol Online Survey (BOS) website and distributed in UK and in Indonesia. Chapter 7 will discuss Study 4 in further detail.

# Chapter Seven

## Study 4: Experiment

### *(Priming and Facebook responses)*

#### 7.1. Rationale for this study

Study 3 helped to evaluate the impact of priming on participant responses. While it was a shorter questionnaire, it did include the pre and post measures which helped to strengthen the decision to use the priming measures in Study 4. The results in Study 6 highlight a near significant effect of priming on participant responses which will be further evaluated in this study. As highlighted in the last chapter various factors were identified that could have stood in the way of stronger effects ranging from instructions in the paper-and-pencil based experiment to sample size. An amended version of the materials was therefore used to conduct study 4, for which a larger sample was recruited across Indonesia and UK. While study 1 and 2 looked at the differences in responses in the measures, Study 3 and 4 aimed to evaluate the causal role of culture, through the priming measures. Similar to Study 3, Study 4 consisted of the priming measures but it also had additional measures which evaluated the effect of priming on several DVs (which will be discussed later). Next to measures of self-construal, the same main outcome measures as in the surveys were added to the experiment: online self-enhancement, online privacy, online trust, online group identity and perceived social support. This study aims to evaluate the following hypotheses:

**H12: Participants will respond more strongly when they are primed with their consistent cultural self then when they are primed with inconsistent cultural self, such that members from collectivist countries will score higher on levels of collectivism when they are primed with collectivism self-construal than when they are primed with individualism self-construal. Similarly, when members from individualist countries are primed with individualism self-construal they will score higher on the level of individualism than levels of collectivism.**

It is envisaged that when members from particular cultural background are primed with their own cultural attributes, it will result in enhancing their cultural selves even deeper, thereby helping to strengthen their cultural orientation. Alternatively, when they are exposed to an environment

which promotes cultural attributes that are not consistent to their own than that would also have an impact on their cultural selves.

**H13: Priming would have a positive effect on group identification when primed with consistent cultural orientation than when primed with inconsistent cultural orientation. Furthermore, Indonesian sample would score higher on group identification than UK sample.**

While the social network on SNS extends and gets established from links that members know offline (Lampe et al., 2006), it would be fair to say that members from both countries will have social contacts that they already know offline, however as members from collectivist countries prefer staying within their social group, their social network would be less diverse than members from individualist countries and as such they would be more familiar with their social network.

**H14: Priming would have an effect on how members rated themselves when compared with others on cultural attributes, such that it helps them to self-enhance. It is further anticipated that members from both cultures would rate themselves higher on their cultural traits.**

As SNS becomes the environment where members are able to advertise themselves through their online identity, it is envisaged that social comparison with other members online on cultural specific attributes would help to highlight how members would perceive themselves in comparison to others. When members are primed with their cultural specific attributes it will strengthen their cultural attributes which will help them to self-enhance. Alternatively, when members are primed with inconsistent cultural attributes it will lower their feeling of self-enhancement.

**H15: Priming would have an effect on social support when members are primed with consistent cultural orientation than when they are primed with inconsistent cultural orientation.**

It is anticipated cultural orientation of members would have an effect on how members are able to perceive social support in an online environment. It is envisaged that consistent cultural traits among members would help them seek social support more than when they are communicating with members with inconsistent cultural traits. It is because as members are aware of cultural specific behaviour it helps them anticipate the online behaviour of their social contacts. Such

predictions might not be easy to make when they communicate with members from other cultural backgrounds, who have different cultural traits.

**H16: Priming would have an effect on online trust. It is hypothesized that when members are primed with collectivism condition then it would increase online trust as it is anticipated that Indonesian participants would score higher in level of online trust than the UK participants. Alternatively, when members are primed with individualism condition then it would reduce their level of online trust for their social contacts.**

When members are primed with consistent cultural orientation, it will have an effect on the levels of trust on SNS. It is anticipated that when members from collectivist countries are primed with collectivism condition, it will strengthen their cultural selves further which will have an effect on the level of trust among their social network. It is anticipated that as members from collectivist countries would trust their social network more on Facebook more than members from individualist countries as their social network would generally consist of members with whom they would have established offline relationships unlike members from individualist countries who are open to accepting friend requests from diverse social groups. Furthermore, collectivist attributes would promote interdependent selves of member which would help to establish a feeling of reciprocity among in-groups which would instil a feeling of trust among members.

**H17: Priming would have an effect on levels of online privacy concern such that members from collectivist countries would score higher on the scores on privacy concern than members from individualist countries.**

It is anticipated that as members from collectivist countries prefer to remain within their own known social groups they would be more concerned about maintaining their privacy in an online environment than members from individualist countries. It is because failure to maintain appropriate privacy could result in online tension which could also have an adverse impact on their offline relationships.

## **7.2. Method**

### **7.2.1. Participants**

407 participants were recruited as an opportunity sample from a university in UK (N = 161) and across three universities in Indonesia (N = 246) with an average age of  $M = 19.57$  ( $SD = 3.04$ ) and an age range between 18 to 44 years. The participants in Indonesia were recruited with the help of a Research Assistant.

### **7.2.2. Procedure**

The experiment was developed by creating different versions of an online survey, similar to study 3. In the UK, the online versions were promoted within the host university and on Twitter and Facebook to maximize outreach. For the Indonesian sample, the survey was first back translated and the data was collected in paper and pen format and then was inputted on the Bristol Online Survey (BOS) website by research assistants recruited for this task. The experiment lasted for approximately 15-20 minutes. A small incentive was offered as participants were given the chance to enter in a lottery draw to win various prizes for the UK sample and vouchers for the Indonesian sample.

### **7.2.3. Materials &Description of items**

The experiment captured the demographics of the participants. Gender coded as 1 for male and 2 for female, age in years, ethnicity coded as 1 for respondents with western ethnicity, who were White British and 2 for Eastern ethnic background who were Javanese, work coded as 1 for employed –full time, 2 for employed – part time, 3 for unemployed, 4 for student – full time, 5 for student – part time, country of residence, coded as 1 for UK and 2 for Indonesia, nationality coded as 1 for British and 2 for Indonesian and first language of the participants which was coded as English as 1 and Bahasa Indonesia as 2.

While the DV in Study 3 consisted of the responses on the TST scale, Study 4 consisted of several additional DVs which were all standardized measures. The experiment began with a check on the demographics of the participants. The cultural orientation of the participants was captured

using the cultural self-construal scale (Singelis, 1994) which, as in the other studies, measured the collectivist and individualist self-construal of the participants. All the 24 items were used (12 items measuring the levels of collectivism and 12 items measuring the levels of individualism). Respondents were asked to give their best rating on the items based on a 5 point Likert scale measuring from “Disagree strongly” coded as “1” to “Agree strongly” coded as “5” where “1” being the lowest score and “5” being the highest score. The collectivism-measuring items were given first followed by the individualism-measuring items (Cronbach’s alpha = .75 for individualism; Cronbach’s alpha = .67 for collectivism).

In light of moderate reliability levels for the self-construal scale, found across all studies of the project, an additional two item scale which was designed and adapted from the cultural descriptions from Markus & Kitayama (1991). The single items were designed in a way which promoted general description of cultural traits and behaviours. ‘I value individual achievement and strongly believe in my personal goals. My personal achievements and success is of priority for me. I strongly believe in my own efforts. I value independence’, highlighted levels of individualism and ‘I value the importance of my relationship with others. My goals are achievable/ achieved with the help of and support of others around me. Living a life of harmony with others is of priority for me’ highlighted collectivist behaviours. Both items were also based on 5-point Likert scales ranging from ‘Not at all’ to ‘Very much’ where ‘Not at all’ was coded as ‘0’ and ‘Very much’ as ‘5’.

In order to evaluate the effect of priming on the levels of self-enhancement on cultural specific traits, a self-enhancement measure was adapted from Gaertner et al. (2008) and was administered twice, before and after the manipulation. The scale consisted of 7 collectivist attributes and 7 individualist attributes. Respondents were asked to rate the attributes based on the importance of the traits to them “personally”. Ratings were made on a 6 point Likert scale ranging from “very unimportant” coded as “1” to “very important” coded as “6” (Cronbach’s alpha = .73). Higher scores indicated higher levels of cultural traits.

‘The Sumerian warrior task’ was used as one of the priming instruments. As in study 3, the participants were primed using an interdependent or independent story of a general who was in a dilemma when he had to choose the appropriate and deserved warrior to send to his king (Gardner et al., 1999; Trafimow, Triandis, & Goto, 1991). The two stories aim to bring about a shift between

independent and interdependent self-construal. In the independent condition of the warrior story, the general chose the warrior that was best suited for the job and considered the benefits to himself. Whereas in the interdependent version of the story the general chose a member of his family and considered the benefits to his family. Respondents were asked to read the story and, in addition, to decide if they thought the general's decision was supportive. The next priming task was the 'Pronoun circling task' adapted from Brewer & Gardner (1996). This text passage described a trip to the park and participants were asked to read the passage and circle all the pronouns in the passage. On addition to this task, in comparison to study 3, participants were asked to circle the pronouns present in the passage and also write down the number of pronouns they found. This was done to enhance participant engagement. Two conditions of the pronoun circling task were created with an independent version of the text where the pronouns were "I, mine, me, myself" and an interdependent version where the pronouns were "we, they, us, ourselves". In total, there were seventeen pronouns in the task in both the versions. The third priming task required participants to write down answers to four questions. For the collectivist version, questions were 'a) List 4 things that you would like to obtain for your family to improve their everyday life, b) List 4 things that you value about your family, c) Please think of 4 things that you have in common with your family and friends and d) What is your goal for the next 1 year in relation to your family and friends, i.e., what is it that you want to achieve or do together with your family and friends in the next 1 year?'. For the individualist version, the questions were 'a) List 4 things that you would like to obtain for yourself to improve your everyday life, b) List 4 things that you value about yourself as a person, c) Please think of what makes you different from your family and friends and d) What is your personal goal for the next 1 year.' All the priming tasks were presented to participants one after the other to strengthen the effect of priming on the participants.

Respondents then completed a self-construal task or TST (Kuhn & McPartland, 1954), which the DV. The original version of the TST required respondents to provide twenty self-descriptions. However, based on the responses and the feedback received in Study 3 it was seen that reducing the number of self-descriptions would be less time consuming and would encourage respondent engagement with the task. Therefore, instead of twenty self-descriptions respondents were asked to provide ten self-descriptions. Responses were then coded as "independent" and scored as "1" if respondents described a person attribute (trait, feeling, physical descriptor or attitude – e.g., "I am

selfish”) and as “interdependent” and scored as “2” if they described a collective relationship or membership with other group – e.g., “I am happy to be with my family”.

The online privacy scale consisted of items like “How confident are you that the information that you upload on Facebook is not misused by others?”, “How safe do you feel uploading your pictures and personal information on Facebook?”, “While on Facebook do you feel that you are at a particular risk?” and “Do you feel that others are at risk because of using Facebook?”. The items were measured on a five point Likert scale ranging from “Not at all” coded as “1” to “Very much” coded as “5” (Cronbach’s alpha = .65).

The experiment included additional items which were items that focused on some of the social drivers that drives people on SNS which helped to highlight some of the motives of online behaviour in more detail. The items in the scale were: “I feel confident when my friends appreciate my achievements on Facebook”, “Sharing harmony among my social groups on Facebook is crucial to me”, “Sharing my personal photos and information gives me a sense of freedom”, I feel valued and appreciated when my friends share their likes and comments on my personal photos and information on Facebook”, and “My popularity on Facebook depends on the number of friends I have on Facebook”. Items were aggregate to form a scale called the “Social Drivers Scale” with Cronbach’s alpha = .73.

The social support scale consisted of four items “How likely would you offer social support to others”, “How likely would you share your most private worries and fears with someone in your social group on Facebook?”, “How likely do you feel that members of your social group would help you during a personal crisis” and “How likely are you to involve yourself with a social cause on Facebook?”. The items were rated on a 5 point Likert scale ranging from “Extremely unlikely” coded as “1” and “Extremely likely” coded as “5” (Cronbach’s alpha = .54).

The group identity scale consisted of four items “I feel strongly connected with my social group members on Facebook”, “My Facebook friends are very important for me”, which were positively rated items. “I often feel held back by my social group on Facebook”, “I sometimes make excuses of belonging to my friends group on Facebook” were negatively rated items. The negatively rated items were recoded. The items were rated on a 5 point Likert scale ranging from “Never” coded as “1” to “Always” coded as “5”. The Cronbach’s alpha for this scale was = .64.



The online trust the members had for their social contacts on Facebook was measured using a scale consisting of four items: “My Facebook social group members are trustworthy”, “I am confident that my friends on Facebook mostly share their honest opinions about me”, “I trust Facebook for safeguarding my personal information”, and “Members of my social group on Facebook do their best to help me whenever I need them”. The items were coded on a 5 point Likert scale ranging from “Never” coded as “1” to “Very Often” coded as “5”. Cronbach’s alpha for this scale was = .77.

The respondents were then presented with some scenarios typical of Facebook engagement: “I log on my Facebook and I receive a friend request from my family member. How likely is that you will accept the friend request?”, “I log on my Facebook and receive a friend request from an unknown person. How likely would you accept the friend request?”, “While logging on Facebook I am reminded to update my privacy settings. How likely would you update your privacy settings?”, “While on Facebook I get a request to join a protest for a noble/ social cause. How likely would you join the protest?”, “While on Facebook when I see my friends talk about their achievement, I would congratulate them”, “While on Facebook I often seem to join social groups that has personal importance to me”. Item responses could range from “Extremely unlikely” coded as “1” to “Extremely likely” coded as “5”.

There was also an overall check built into the experiment to ensure that participants had some basic understanding and awareness of the priming tasks. For this, participants were asked to focus back on the study as a whole and to state what they thought was the study’s main focus: “Social responsibility”, “Individual decisions” or “Reading skills”. The three items were scored on a 7 point Likert scale as well ranging from “Not at all” coded as “1” to “Very much” coded as “7”.

## **7.3. Results and Analysis**

### **7.3.1. Data screening and preliminary analysis**

Data was analysed using SPSS version 23. The threshold for significance was set to  $\alpha = 0.05$  for all decisions. Prior to in depth analysis data were first screened to check for missing values and outliers. The assumptions of normality were also checked if there was any presence of skewness

or kurtosis in the data. Normality of the data was accepted if the distribution of variables, i.e., both their skewness and kurtosis was within range ( $z < 2.58$ ), (Hair et al., 2006).

### 7.3.2. Sample characteristics

Table 7.1 demonstrates the characteristics of the participants. Mean age of the UK respondents was  $M = 19.57$  ( $SD = 3.04$ ), with an age range between 18 and 44 years. The mean age of the Indonesian respondents was  $M = 19.18$  ( $SD = 1.30$ ) years. The age range for the Indonesian respondents was between 18 to 30 years. The age range for the UK respondents was more varied than the Indonesian sample, however overall the sample was clearly university-based in both countries, with more than 90 percent of participants coming from a student population. This is also demonstrated in Table 7.2 which shows the variation in work status for both countries. The highest number of participants were from the population from 18 – 21 years of range. The sample also showed a greater number of participation from the female population in both UK and Indonesia.

Table 7.1.

*Illustrates the Descriptive statistics for participants in Study 4*

Variable	Mean (SD)/ Frequency	Range/ Percentage
<b>Overall (N= 407)</b>		
<b>Age (years):</b>		
UK	19.57 (3.04)	18-44
Indonesia	19.18 (1.30)	18-30
<b>Country: UK: N = 161; Indonesia: N = 246)</b>		

**Gender:**

UK	: Male	18	11.2
	: Female	143	88.8
Indonesia	: Male	52	21.1
	: Female	194	78.9

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*Note: Overall represents both UK and Indonesia combined*

Table 7.2.

*Ethnicity and work characteristics of the participants in Study 4*

Variable	Frequency	Percentage
<b>Overall (N= 407)</b>		
<b>Ethnicity:</b>		
UK: British	161	
Indonesia: Indonesian	246	
<b>Work:</b>		
UK: (N = 161)		
Employed (full-time)	0	0.0
Employed (part-time)	4	2.5
Unemployed	4	2.5
Student (part-time)	2	1.2

Student (full-time)	151	93.8
Indonesia: (N = 246)		
Employed (full-time)	1	.4
Employed (part-time)	-	-
Unemployed	-	-
Student (part-time)	5	2.0
Student (full-time)	240	97.6

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After checking for the demographics of the respondents in the UK and in Indonesia a series of 2 (country type: UK vs Indonesia) x 2 (prime type: independent vs interdependent) ANCOVAs was conducted on all the outcome variables. Age and gender were used as covariates in all the analyses in order to make sure that any effect due to the difference is controlled for. The below paragraphs will discuss the findings.

### 7.3.3 Twenty Statements Test (TST) of Self-construal

The following hypothesis were evaluated:

**H12: Participants will respond more strongly when they are primed with their consistent cultural self then when they are primed with inconsistent cultural self, such that members from collectivist countries will score higher on levels of collectivism when they are primed with collectivism self-construal than when they are primed with individualism self-construal. Similarly, when members from individualist countries are primed with individualism self-construal they will score higher on the level of individualism than levels of collectivism.**

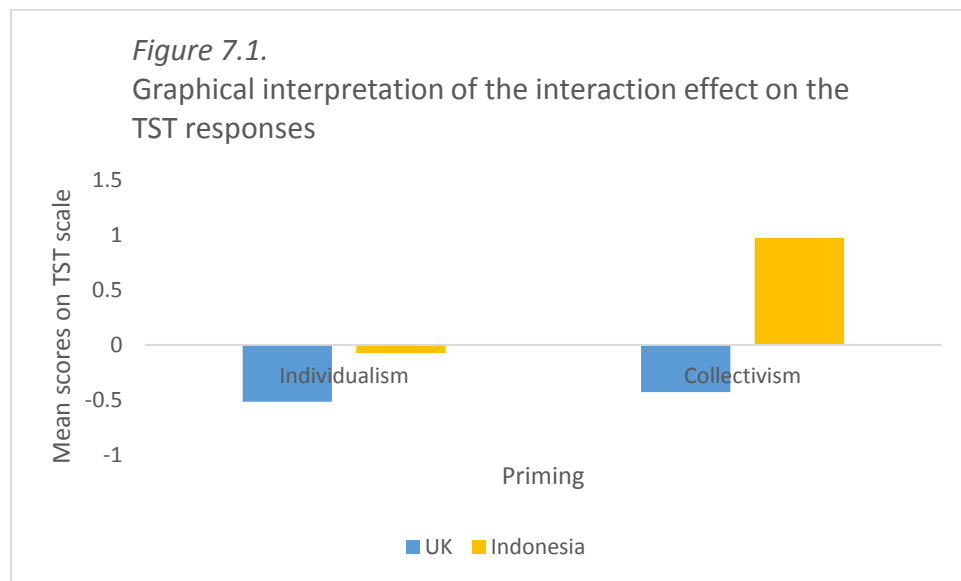
A 2 (country type: UK vs Indonesia) x 2 (prime type: independent vs interdependent) analysis of covariance (ANCOVA) was used to analyse the effect of priming on the standardized TST scale. The cultural orientation scores prior to priming was used as a covariate to eliminate the effect of

any variance of cultural orientation on the scores after priming. This analyses of priming effect showed that individuals had an effect on their self-construal when primed with a particular cultural trait.

There was a significant main effect was found for country  $F(1,396) = 100.913$ ,  $p < 0.05$ , partial  $\eta^2 = .20$ , where participants in the UK scored lower ( $M = -.47$ ) than the Indonesian participants ( $M = .45$ ). This is in line with the coding in the task as higher scores related to collectivist self-descriptions and were allocated “2” and lower scores of “1” were allocated to individualist self-descriptions. This was as expected as participants in the UK which represented independent self-construal would generally provide individualist self-descriptions of themselves than Indonesian participants. It was expected that the Indonesian participants would generally provide a higher number of interdependent self-descriptions of themselves as they represent a collectivist country.

There was a significant main effect for priming  $F(1,396) = 41.18$ ,  $p < 0.05$ , partial  $\eta^2 = .09$ , where participants who were primed with individualism self-construal scored lower on the TST scale ( $M = -.30$ ) than when they were primed with collectivism self-construal ( $M = .27$ ). This was also further supported by the significant interaction between country x priming  $F(1,336) = 29.62$ ,  $p < 0.05$ , partial  $\eta^2 = .07$  on the scores on the TST. The results further confirm that when primed with individualism self-construal participants in the UK ( $M = -.52$ ) scored lower than the Indonesian participants ( $M = -.07$ ). Furthermore, when participants were primed with collectivism self-construal, the Indonesian participants scored higher ( $M = .98$ ) than the UK participants ( $M = -.43$ ). This is again as expected as when Indonesian participants, who generally have higher levels of collectivist traits in them would have an increase in their feeling of collectivism or interdependence when primed with their consistent cultural self than when they are primed with inconsistent cultural self, i.e., when primed with collectivism self-construal than when they are primed with individualism self-construal. This is also the case for the UK participants, however as they generally have higher levels of individualist traits, when primed even if they score higher on collectivism than before, they would still be scoring less than the Indonesian participants as they would have a higher feeling of collectivism (see Figure 7.1 below). This finding helped to support H12 as the results confirmed that as predicted members scored higher when they were primed with their consistent cultural attributes than when they are primed with inconsistent cultural attributes.

Covariates did not show significant associations with TST scores (for cultural orientation:  $F(1,396) = .11$ ,  $p > 0.05$ , partial  $\eta^2 = .00$ ; for gender:  $F(1,396) = 1.03$ ,  $p > 0.05$ , partial  $\eta^2 = .00$ ; for age:  $F(1,396) = 1.70$ ,  $p > 0.05$ , partial  $\eta^2 = .00$ ) suggesting that the impact of one's cultural self, difference in age and gender did not have an impact on the responses on the TST scale.



Overall, the analysis of TST scores shows that the manipulation was successful in influencing self-construal, although the effects seem to be weaker for UK participants than for Indonesian participants.

#### 7.3.4. Online Group Identity

A 2 (country type: UK vs Indonesia) x 2 (prime type: independent vs interdependent) ANCOVA was conducted on group identity with age and gender used as covariates. Below is the hypothesis that is evaluated:

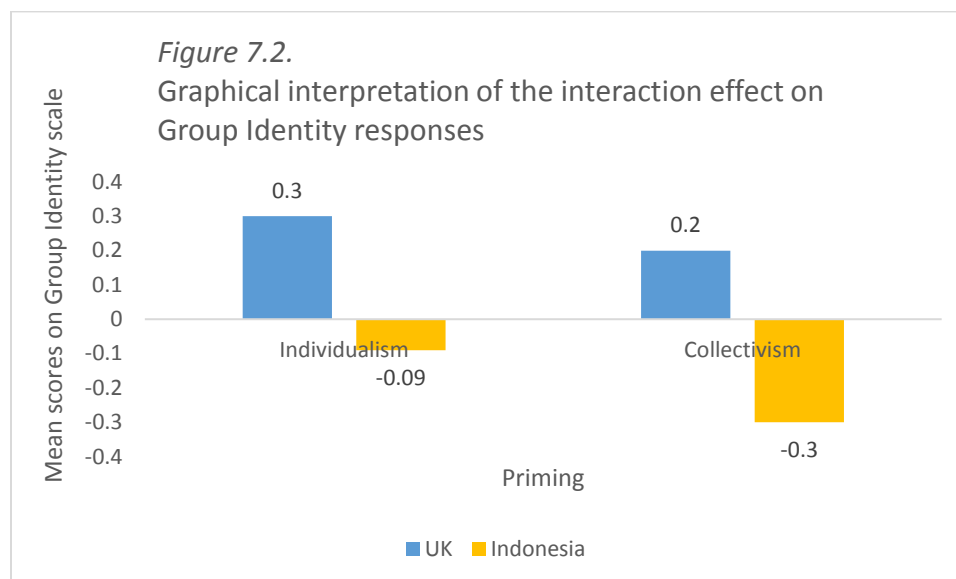
**H13: Priming would have a positive effect on group identification when primed with consistent cultural orientation than when primed with inconsistent cultural orientation.**

**Furthermore, Indonesian sample would score higher on group identification than UK sample.**

No significant main effect was found for priming  $F(1,401) = 2.17, p > 0.05$ , partial  $\eta^2 = .01$  which failed to support H13. There was also no significant interaction effect between country x priming interaction  $F(1,401) = .278, p > 0.05$ , partial  $\eta^2 = .00$ , see Figure 7.2 which confirmed that the combined effect of cultural orientation and one's geographical residence did not have any influence on how much members identified with their social network.

A significant main effect was found for country:  $F(1,401) = 18.70, p < 0.05$ , partial  $\eta^2 = .05$ . Participants in the UK showed higher levels of online group identity ( $M = .25$ ) than participants in Indonesia ( $M = -.19$ ), see Figure 7.2. This further suggests that members in the UK can relate to their social network on SNS more than the Indonesian participants.

For the covariates, no significant effect emerged (for gender:  $F(1,401) = .352, p > 0.05$ , partial  $\eta^2 = .00$ ; for age:  $F(1,401) = 1.78, p > 0.05$ , partial  $\eta^2 = .00$ ).



### 7.3.5. Online Self-Enhancement

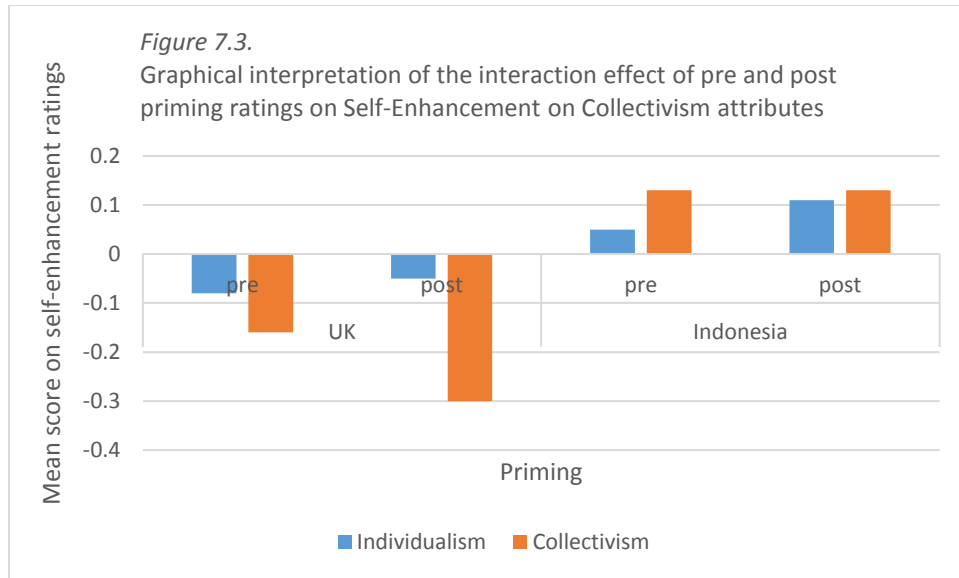
A 2 (country type: UK vs Indonesia) x 2 (prime type: independent vs interdependent) mixed factor analysis of variance (ANOVA) was used to analyse the effect of priming on the self enhancement scale, where self-enhancement was used as a within factor and country and priming as between factors Age and gender were used as covariates. The below hypothesis was evaluated through this analysis:

**H14: Priming would have an effect on how members rated themselves when compared with others on cultural attributes, such that it helps them to self-enhance. It is further anticipated that members from both cultures would rate themselves higher on their cultural traits.**

For the collectivist attributes there was no significant effect of priming on the ratings between UK and Indonesia  $F(1, 401) = .334, p > 0.05$ , partial  $\eta^2 = .001$  suggesting that the causal role of culture could not be established as such failed to support H14. There was also no significant interaction effect established between country x priming  $F(1, 141) = 1.27, p > 0.08$ , partial  $\eta^2 = .003$ . However there was a significant effect of country difference on the ratings of on collectivist attributes  $F(1, 141) = 6.46, p < 0.011$ , partial  $\eta^2 = .016$  which confirms that ratings on collectivist attributes is affected by country differences such that participants in the UK scored themselves lower ( $M = -.147$ ) on collectivist attributes than Indonesian participants ( $M = .104$ ). This was as expected that members from Indonesia would advocate attributes that supports collectivist behaviour and members from UK would advocate attributes that supported individualist behaviour. See Figure 7.3 which confirms the above findings.

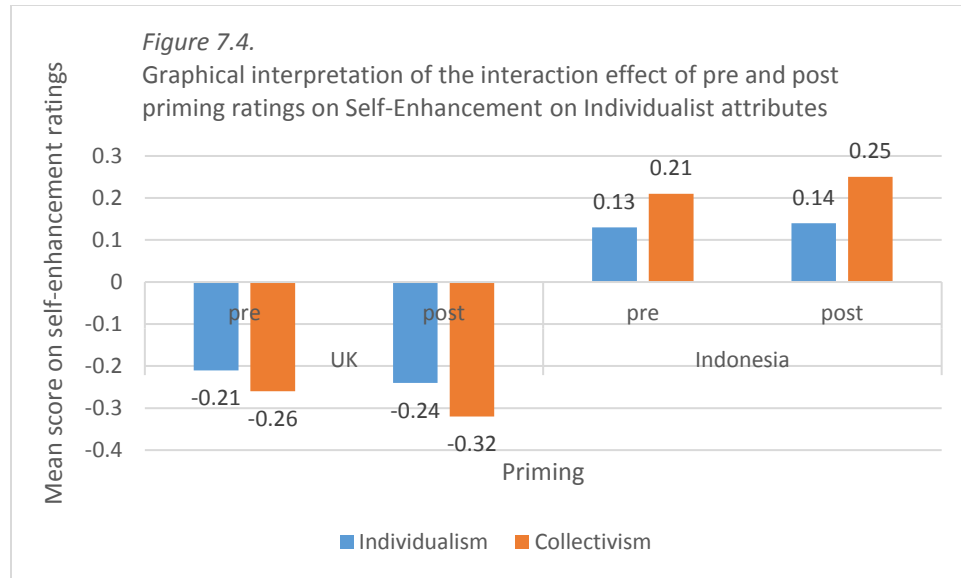
Age  $F(1, 141) = 1.165, p > 0.05$ , partial  $\eta^2 = .003$  and gender  $F(1, 141) = .194, p > 0.05$ , partial  $\eta^2 = .00$  which were used as covariates failed to show any significant effect on the ratings of self-enhancement on collectivist attributes.





For the individualist attributes there was no significant effect of priming on the ratings between UK and Indonesia  $F(1, 401) = .019, p > 0.05$ , partial  $\eta^2 = .00$  suggesting that the causal role of culture could not be established. There was also no significant interaction effect established between country x priming  $F(1, 141) = .704, p > 0.05$ , partial  $\eta^2 = .002$ . However there was a significant effect of country difference on the ratings of on individualist attributes  $F(1, 141) = 20.104, p < 0.001$ , partial  $\eta^2 = .048$  which confirms that ratings on individualist attributes was affected by country differences such that participants in the UK scored lower on individualist attributes ( $M = -.26$ ) than collectivist attributes ( $M = .18$ ), see Figure 7.4.

Age  $F(1, 141) = .725, p > 0.05$ , partial  $\eta^2 = .00$  and gender  $F(1, 141) = .587, p > 0.05$ , partial  $\eta^2 = .001$  which were used as covariates failed to show any significant effect on the ratings of self-enhancement on individualist attributes.



### 7.3.6. Perceived Online Social Support

A 2 (country type: UK vs Indonesia) x 2 (prime type: independent vs interdependent) ANCOVA was conducted on social support and age and gender were included as covariates. The below hypothesis was evaluated through this analysis:

**H15: Priming would have an effect on social support when members are primed with consistent cultural orientation than when they are primed with inconsistent cultural orientation.**

There was no significant effect for priming on perceived online social support  $F(1,401) = 3.50$ ,  $p > 0.05$ , partial  $\eta^2 = .01$  which fails to support H14. There was also no significant effect found for country ( $F(1,401) = 1.78$ ,  $p > 0.05$ , partial  $\eta^2 = .00$ ) or the interaction ( $F(1,401) = .84$ ,  $p > 0.05$ , partial  $\eta^2 = .00$ ). No significant effects were found, neither for the covariates (for gender:  $F(1,401) = 1.12$ ,  $p > 0.05$ , partial  $\eta^2 = .00$ ; for age:  $F(1,401) = .012$ ,  $p > 0.05$ , partial  $\eta^2 = .00$ ).

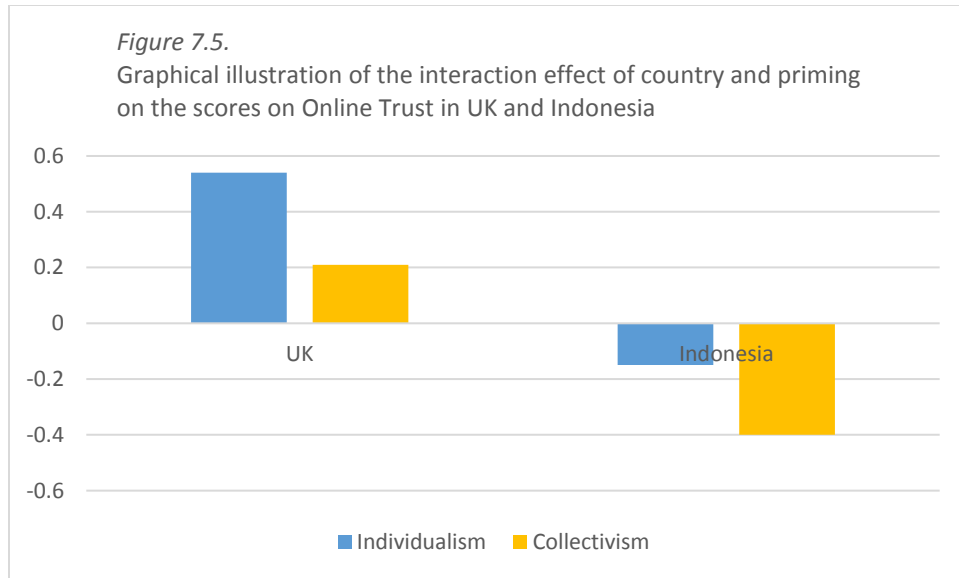
### 7.3.7. Online Trust

A 2 (country type: UK vs Indonesia) x 2 (prime type: independent vs interdependent) ANCOVA was conducted on trust and age and gender were used as covariates with an aim to evaluate the below hypothesis:

**H16: Priming would have an effect on online trust. It is hypothesized that when members are primed with collectivism condition then it would increase online trust as it is anticipated that Indonesian participants would score higher in level of online trust than the UK participants. Alternatively, when members are primed with individualism condition then it would reduce their level of online trust for their social contacts.**

The results confirmed that there was a significant effect of priming on trust scores between UK and Indonesian participants  $F(1,401) = 8.626, p = .004$ , partial  $\eta^2 = .021$ . When participants were primed with individualism self-construal, they scored higher on online trust ( $M = .19$ ) than when primed with collectivism self-construal ( $M = -.10$ ). No interaction between country and priming was found:  $F(1,401) = .17, p > 0.05$ , partial  $\eta^2 = .00$ . This confirms that the difference levels of trust is effected by priming however the difference in scores was not as anticipated, hence failing to support H16. There was also a significant effect of country difference. Participants in the UK ( $M = 3.72$ ) scored higher on the levels of trust with their social contacts on Facebook than participants in Indonesia ( $M = -.276$ ).  $F(1,401) = 43.011, p = .001$ , partial  $\eta^2 = .097$  further confirming that country differences also influenced levels of trust among members, see Figure 7.5 below which explains the above.

No significant effects were found for covariates (for gender:  $F(1,401) = 2.80, p > 0.05$ , partial  $\eta^2 = .01$ ; for age:  $F(1,401) = .04, p > 0.05$ , partial  $\eta^2 = .00$ ).



### 7.3.8. Online Privacy concern

A 2 (country type: UK vs Indonesia) x 2 (prime type: independent vs interdependent) ANCOVA was conducted on the privacy scale and age and gender were used as covariates, and the below hypothesis was evaluated:

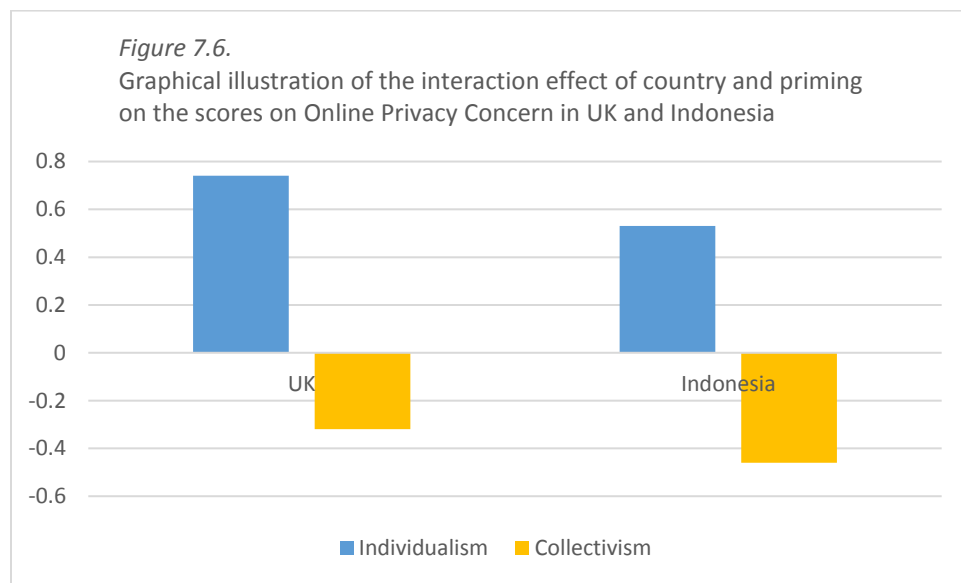
**H17: Priming would have an effect on levels of online privacy concern such that members from collectivist countries would score higher on the scores on privacy concern than members from individualist countries.**

There was also a significant main effect of priming on the levels of privacy concern  $F(1,401) = 7.15$ ,  $p < 0.05$ , partial  $\eta^2 = .018$ , which supported the effect of priming on participant responses, however priming participants with individualism attributes increases the level of privacy concern ( $M = .214$ ) than when they were primed with collectivism attributes ( $-.03$ ), and the difference in the two groups was statistically significant ( $p > 0.08$ ) and hence failed to support H17. This could be attributed to the level of education of the privacy risks associated with online communication in different countries as members in UK might be better aware of the potential risks associated with SNS, than members in Indonesia.

There was a significant main effect for country on the levels of privacy concern  $F(1,401) = 119.31$ ,  $p < 0.05$ , partial  $\eta^2 = .23$ , where participants in the UK seemed to be more concerned about

their privacy online ( $M = .57$ ) than the Indonesian participants ( $M = -.40$ ) and the difference between the countries was statistically significant at  $p > 0.001$  further suggesting that difference in country residence had an impact on how members perceived online privacy. However there was no significant interaction:  $F(1,401) = .869$ ,  $p > 0.05$ , see Figure 7.6.

A significant effect of age on the levels of privacy concern was found  $F(1,401) = 4.57$ ,  $p < 0.05$ , partial  $\eta^2 = .011$  and there was a significant effect for gender on the levels of privacy concern  $F(1,401) = 4.33$ ,  $p < 0.05$ , partial  $\eta^2 = 0.11$ .



### 7.3.9. Scenario Task

A 2 (country type: UK vs Indonesia) x 2 (prime type: independent vs interdependent) between subjects ANOVA design was used. Country and Prime type were the IVs and the score on the item was the DV. The below paragraphs will show the results for individual items.

#### 7.3.9.1. I log on my Facebook and receive a friend request from my family member. How likely is that you will accept the friend request?

There was no significant main effect for priming  $F(1,400) = .555$   $p > .05$ , partial  $\eta^2 = .001$ , no significant main effect for country  $F(1,400) = .828$   $p > .05$ , partial  $\eta^2 = .002$ , no significant main

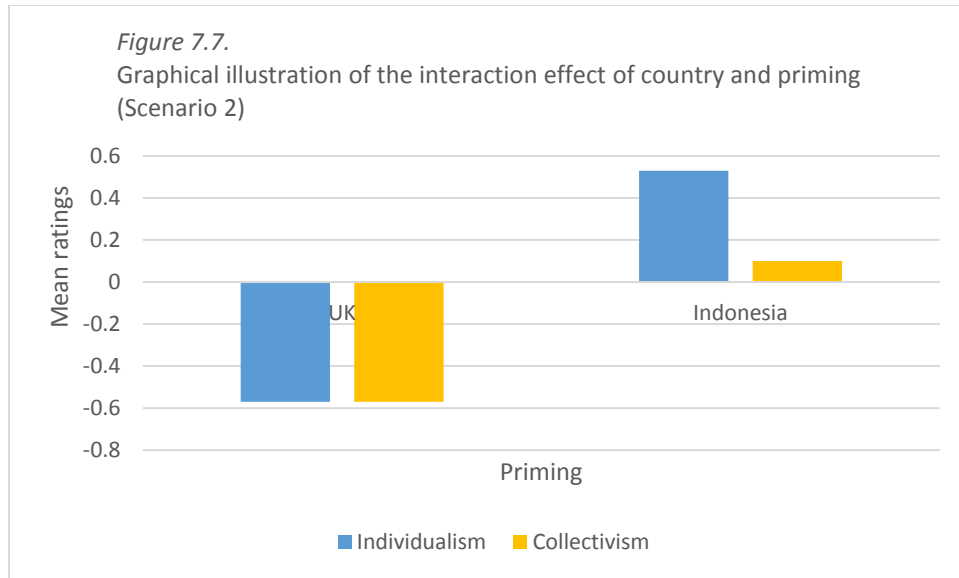
effect for age  $F(1,400) = .190$   $p > .05$ , partial  $\eta^2 = .000$ , no significant main effect for gender  $F(1,400) = .00$   $p > .05$ , partial  $\eta^2 = .000$ , for cultural orientation  $F(1,400) = .767$   $p > .05$ , partial  $\eta^2 = .002$  and there was no significant interaction between priming and country  $F(1,403) = 1.301$   $p > .05$ , partial  $\eta^2 = .003$ .

This suggests that accepting friend request on Facebook from family members did not affect due to difference in country, cultural orientation, priming, age or gender.

### **7.3.9.2. I log on my Facebook and receive a friend request from an unknown person. How likely will you accept the friend request?**

There was a significant main effect for priming  $F(1,400) = 5.543$   $p < .05$ , partial  $\eta^2 = .014$ , significant main effect for country  $F(1,400) = .89.087$ ,  $p < .001$ , partial  $\eta^2 = .182$ . There was also a significant interaction between country and priming  $F(1,400) = 5.619$   $p < .05$ , partial  $\eta^2 = .014$  which confirms that when members from UK were primed with individualism they scored the same ( $M = -.57$ ) when they were primed with collectivism self-construal ( $M = -.57$ ). However, when Indonesian participants were primed with individualism self-construal they would be more likely to accept a friend request from an unknown person ( $M = .53$ ) than when they were primed with collectivism self-construal ( $M = .10$ ). The difference in mean was quite small (.212) but was statistically significant  $p = .02$ , see Figure 7.7 below. The results suggest that when having collectivist attributes helps to avoid friending strangers on SNS.

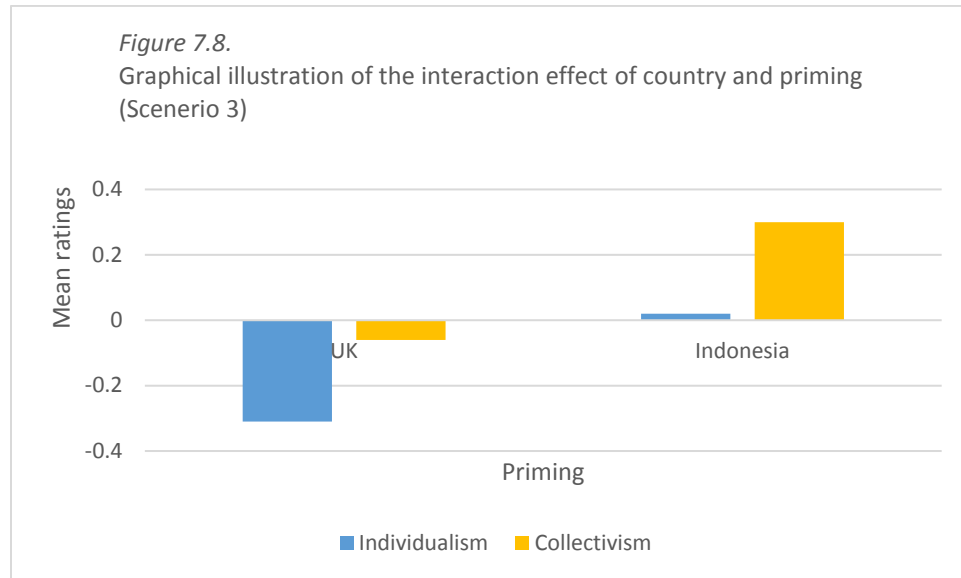
There was a significant main effect age  $F(1,400) = 5.051$   $p < .05$ , partial  $\eta^2 = .012$ . However, there was no significant main effect for gender  $F(1,400) = 3.627$ ,  $p > .05$ , partial  $\eta^2 = .009$  and differences in cultural orientation  $F(1,400) = .374$ ,  $p > .05$ , partial  $\eta^2 = .001$ .



### 7.3.9.3. While logging on Facebook I am reminded to update my privacy settings. How likely would you update your privacy settings?

There was a significant main effect for priming  $F(1,400) = 6.443$   $p < .05$ , partial  $\eta^2 = .016$ , a significant main effect for country  $F(1,400) = 10.214$   $p > .01$ , partial  $\eta^2 = .025$  further confirming that priming participants with individualist self-construal reduces the likelihood of the chances for updating privacy settings when reminded (UK:  $M = -.31$ ; Indonesia:  $M = .02$ ) than when primed with collectivist self-construal (UK:  $-.06$ ; Indonesia:  $M = .30$ ) and the difference in mean in the two groups was statistically significant  $p = .012$ . This suggests that the more individualist one is the lesser they would update privacy settings. Alternatively, increase in collectivism would increase the chances of updating the privacy settings on Facebook and such differences in behaviour can be attributed due to the cultural differences. Adjusted means for country differences suggest that participants in the UK seem to be less likely to update privacy settings when reminded ( $M = -.18$ ) than participants in Indonesia ( $M = .16$ ) reflecting the previous findings, see Figure 7.8 below which illustrates these findings. There was also no significant interaction for country and priming  $F(1,400) = .031$ ,  $p > .05$ , partial  $\eta^2 = .000$ .

There was no significant main effect cultural orientation  $F(1,400) = .002$   $p > .05$ , partial  $\eta^2 = .00$ , there was also no significant main effect gender  $F(1,400) = 2.546$   $p < .05$ , partial  $\eta^2 = .006$ , there was also no significant main effect for age  $F(1,400) = 3.326$   $p > .05$ , partial  $\eta^2 = .008$ .

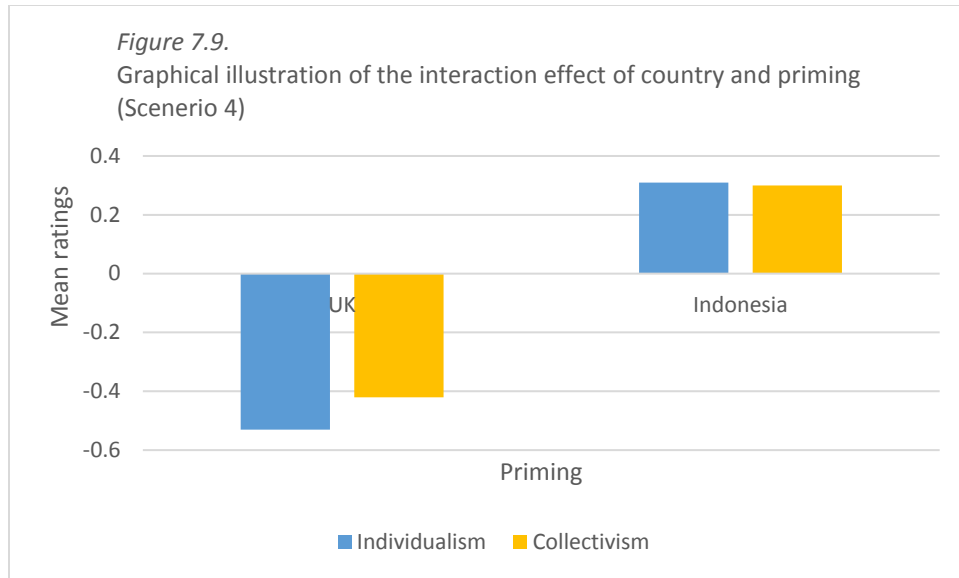


#### **7.3.9.4. While on Facebook I get a request to join a protest for a noble/ social cause. How likely would you join the protest?**

There was no significant main effect for priming  $F(1,400) = .286$   $p > .05$ , partial  $\eta^2 = .001$  and there was also no significant interaction between priming and country  $F(1,400) = .452$ ,  $p > .05$ , partial  $\eta^2 = .001$  which failed to support the causal role of culture on the differences in responses among participants in UK and Indonesia. There was a significant main effect for cultural orientation  $F(1,400) = 6.260$   $p < .05$ , partial  $\eta^2 = .016$  and there was a significant main effect for country  $F(1,400) = 62.146$   $p < .001$ , partial  $\eta^2 = .134$ , which confirmed that the Indonesian sample ( $M = .307$ ) seemed to be more likely to join a protest for a noble/ social cause than UK participants ( $M = -.473$ ), see Figure 7.9 which further illustrates the results.

There was no significant main effect for gender  $F(1,400) = .023$   $p > .05$ , partial  $\eta^2 = .00$ , there was also no significant main effect age  $F(1,400) = 2.473$   $p < .05$ , partial  $\eta^2 = .006$ .





**7.3.9.5. When I am on Facebook when I see my friends talk about their achievements. I would congratulate them. How likely are you to act in a particular way?**

There was no significant main effect for priming  $F(1,400) = .552$   $p < .05$ , partial  $\eta^2 = .001$ , which failed to support the differences in responses due to cultural orientation. There was no significant main effect for country  $F(1,400) = 1.410$   $p > .05$ , partial  $\eta^2 = .004$  which failed to establish differences in responses due to geographical differences and there was also no significant interaction between priming and country  $F(1,400) = .406$ ,  $p > .05$ , partial  $\eta^2 = .001$ .

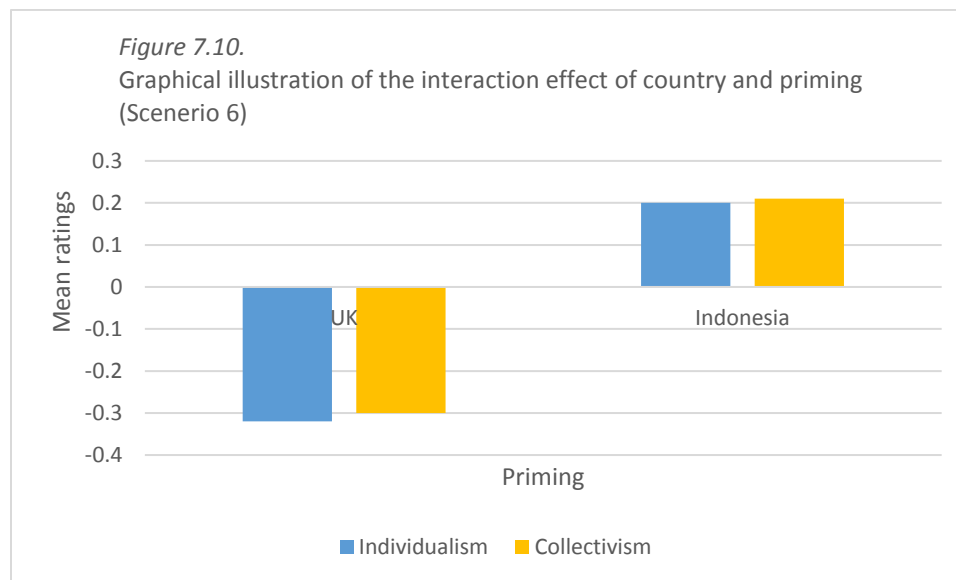
There was a significant main effect for gender  $F(1,400) = 8.353$   $p < .05$ , partial  $\eta^2 = .020$ . however, there was no significant main effect for cultural orientation  $F(1,400) = .769$   $p > .05$ , partial  $\eta^2 = .002$ , for age  $F(1,400) = 1.509$   $p > .05$ , partial  $\eta^2 = .004$ .

**7.3.9.6. While on Facebook I often seem to join social groups that has personal importance to me. How likely are you to act in a particular way?**

There was no significant main effect for priming  $F(1,400) = .016$   $p > .05$ , partial  $\eta^2 = .00$  which failed to support the influence of culture on participant responses which is also reflected in the effect size. There was also no significant interaction between priming and country  $F(1,400) =$

.006,  $p > .05$ , partial  $\eta^2 = .00$ . There was a significant main effect for difference in country  $F(1,400) = 23.648$   $p < .001$ , partial  $\eta^2 = .056$ , which suggest that difference in country did have an impact on the ratings of the participants. Indonesian sample ( $M = .20$ ) seemed to be more likely to join social groups that has personal importance to them than the UK participants ( $M = -.31$ ). This is also illustrated in Figure 7.10. as the responses are higher for the Indonesian sample in both the priming conditions and again there seems to be an increase in scores when the UK participants are primed with collectivist self-construal suggesting that members with collectivist self-construal are more likely to become members of other social groups. This is also similar to the findings of “iv) While on Facebook I get a request to join a protest for a noble/ social cause. How likely would you join the protest?” above. Both these findings are supportive of group behaviour which supports collectivist behaviour.

There was however no significant main effect for cultural orientation  $F(1,400) = .110$ ,  $p > .05$ , partial  $\eta^2 = .00$ , for gender  $F(1,400) = .447$   $p > .05$ , partial  $\eta^2 = .001$ , for age  $F(1,400) = .129$   $p < .05$ , partial  $\eta^2 = .00$ ,



## 7.4. Summary

This section will summarise the findings of Study 4 and then the next section will compare the results between the studies. Table 7.3 below summarizes the hypotheses that in Study 4 and their results.

**Table 7.3.**

*Illustrates the results of the hypotheses in Study 4 and its outcomes*

DV	Hypotheses	( ✓ ) / ( X )
TST	H12: Participants will respond more strongly when they are primed with their consistent cultural self then when they are primed with inconsistent cultural self, such that members from collectivist countries will score higher on levels of collectivism when they are primed with collectivism self-construal than when they are primed with individualism self-construal. Similarly, when members from individualist countries are primed with individualism self-construal they will score higher on the level of individualism than levels of collectivism.	✓
Group Identity	H13: Priming would have a positive effect on group identification when primed with consistent cultural orientation than when primed	X

	with inconsistent cultural orientation. Furthermore, Indonesian sample would score higher on group identification than UK sample.	
<b>Self-enhancement</b>	H14: Priming would have an effect on how members rated themselves when compared with others on cultural attributes, such that it helps them to self-enhance. It is further anticipated that members from both cultures would rate themselves higher on their cultural traits.	✓ (Indonesia)  X (UK)
<b>Perceived Social Support</b>	H15: Priming would have a significant effect on social support when members are primed with consistent cultural orientation than when they are primed with inconsistent cultural orientation.	X
<b>Trust</b>	H16: Priming would have an effect on online trust. It is hypothesized that when members are primed with collectivism condition then it would increase online trust as it is anticipated that Indonesian participants would score higher in level of online trust than the UK participants. Alternatively, when members are primed with individualism condition then it would reduce their level of online trust for their social contacts.	Priming ✓  However,  failed to  support H16
<b>Privacy</b>	H17: Priming would have an effect on levels of online privacy concern such that members from collectivist countries would score higher on the scores on privacy concern than members from individualist countries.	Priming ✓  However,  failed to  support H17

Study 4 was conducted with an aim to confirm whether self-construal priming could influence participants' responses to the Facebook-related outcome measures. This would confirm the causal role of culture on the online behaviours and psychological states of individuals. This section is a brief compilation of the results in Study 4. First of all, results for the Ten-Statements-Test confirmed that priming had an effect on participants' self-construal. Overall participants scored less, which meant that they promoted individualist self-descriptions when primed with independent self-construal than when primed with interdependent self-construal. When UK participants were primed with individualism self-construal, they scored lower than Indonesian participants. When the UK participants were primed with collectivism self-construal they scored lower than the Indonesian participants as expected, however their scores seemed to improve when they were primed with collectivist self-construal.

### **Online Group Identity**

Although priming did not have a significant effect on online group identity, country difference confirmed that participants in the UK identified with their group members more than the Indonesian participants.

### **Online self enhancement**

The effect of priming was significant for collectivist attributes (see Table 7.3). For the collectivist attributes participants in the UK scored themselves lower on collectivist attributes than Indonesian participants. This was as expected that members from Indonesia would advocate attributes that supports collectivist behaviour and members from UK would advocate attributes that supported individualist behaviour. However, participants in the UK also scored themselves lower on individualist attributes than collectivist attributes.

### **Perceived Online Social Support**

Priming did not have any effect on the scores of perceived online social support (see Table 7.3) which failed to support the causal role of culture on participant responses.

## **Online Trust**

Priming did have an effect on how much members trust their social network on SNS (see Table 7.3). When participants were primed with individualism self-construal, they scored higher on the levels of online trust than when participants were primed with collectivism self-construal. Additionally, participants in the UK trust their social contacts more than the Indonesian participants.

## **Online Privacy concern**

Priming did have a significant effect on participant scores (see Table 7.3). Results confirm that participants who were primed with individualism self-construal showed higher levels of privacy concern than participants who were primed with collectivism self-construal. Furthermore, country difference confirmed that participants in the UK showed higher levels of privacy concern than participants in Indonesia which was in contrary to the findings in Study 2. However, this study did confirm the effect of priming.

## **Scenario Task**

**I log on my Facebook and receive a friend request from my family member. How likely is that you will accept the friend request?**

There was no significant effect of priming as such the differences on responses among UK and Indonesian participants could not be attributed to cultural differences.

**I log on my Facebook and receive a friend request from an unknown person. How likely will you accept the friend request?**

There was a significant main effect of priming and the results confirmed that priming members with individualism self-construal, did not affect their ratings on whether members would accept friend request from an unknown person. However, when Indonesian participants were primed with individualism self-construal they would be more likely to accept a friend request from an unknown person than when they were primed with collectivism self-construal.

**While logging on Facebook I am reminded to update my privacy settings. How likely would you update your privacy settings?**

There was a significant main effect for priming and the results confirmed that individualist self-construal reduces the likelihood of updating privacy settings when reminded than collectivist self-construal, which suggests that members from collectivist countries when reminded are likely to update privacy settings to feel protected than members from individualist countries.

**While on Facebook I get a request to join a protest for a noble/ social cause. How likely would you join the protest?**

There was no significant main effect for priming as such the differences in participant responses could not be attributed to cultural differences. However, there was a significant main effect for country and cultural orientation which confirmed that Indonesian sample were more likely to join a protest for a noble/ social cause.

**When I am on Facebook when I see my friends talk about their achievements. I would congratulate them. How likely are you to act in a particular way?**

There was no significant main effect for priming as such the differences in participant responses could not be attributed to cultural differences.

**While on Facebook I often seem to join social groups that has personal importance to me. How likely are you to act in a particular way?**

There was no significant main effect for priming however there was a significant main effect for country which confirmed that Indonesian participants were more likely to join social groups that had personal importance to them.

## **7.5. Comparison of Results**

### **Online Group Identity**

Study 2 (see section 5.4, Chapter 5) confirmed that the Indonesian sample identified with their group more than the UK sample and that by being present on SNS members can increase their

group identification and not by what type of activity they did and the results were quite similar for members in both cultures. Study 4 further confirmed the causal role of culture as it was seen that members from individualist countries identified with their social network more than the members from collectivist countries which was not what was found in Study 2. However, it is important to note that the difference could be due to the measurement scale and the sample size itself.

### **Online self-enhancement**

Study 2 (see section 5.5, Chapter 5) confirmed that use of SNS, like Facebook decreased levels of self-enhancement in both cultural orientations. Furthermore, the results also confirmed that increase in individualism decreased self-enhancement. As expected members from both cultural orientations self-enhanced on cultural specific attributes but there was a decrease in level of self-enhancement. Study 4 however failed to support the causal role of culture on the differences in responses in both countries as it was seen that in Study 4, when participants were primed with collectivist attributes, Indonesian participants scored higher than participants in the UK, which was as anticipated. However, when members were primed with individualist attributes, participants in Indonesia scored higher than participants in UK, suggesting that Indonesian members scored themselves higher during both priming conditions.

Study 2 confirmed that members from both countries rated themselves higher on collectivist attributes than individualist attributes. While this was representative of Indonesian sample, higher levels of collectivism were not expected from participants in UK. The difference in scores could be due to the measuring scales used, the sample size or could even be attributed to the level of anonymity on SNS which makes members behave in ways that might not necessarily be consistent with their traditional cultural norms.

### **Online perceived social support**

While Study 2 confirmed that both type of activities and frequency of use of SNS, like Facebook increased perceived social support in both cultures. However, the causal role of culture could not be established through the priming manipulation. Again, this could be due to the measurement



scales used or the results may be affected due to the difference in sample size. Although there exists a difference in the perception of online social support due to how members used SNS (see sub section 5.6, Chapter 5) the results attained failed to conclude that this difference was due to the influence of cultural orientation of its members.

## **Online Trust**

Study 4 confirms that priming had an impact on online behaviour however priming members with individualism increased levels of trust on SNS than priming with collectivism condition and it was seen that trust for social group was higher among UK participants than among Indonesian participants.

Study 2 confirmed that the type of activities (see sub section 5.6, Chapter 5) increased the level of trust among members.

Study 1 (see sub section 4.3.3, Chapter 4) however confirmed that there was a higher level of trust among Indonesian participants than among UK participants.

However, Study 4 confirmed that there was a higher level of trust for their online social group among UK participants than among Indonesian participants. This confirms the differences in cultural behaviour on how members trust others on SNS.

While use of SNS help to increase trust among members from both cultures, higher levels of individualism have been seen to increase trust among its social contacts.

While it would be expected that as members from collectivist countries would have higher number of social contacts with whom they would have established offline relationship as they would prefer maintaining their social circle of contacts, there would exist a higher level of trust among people from collectivist countries than members from individualist countries, this was contrary to what the results. Alternatively, it could also be argued that when members become familiar about the behaviour of others, it helps to reduce a feeling of uncertainly, however it also helps members to understand others more due to which probably members from collectivist countries scored lower on group identity, which further confirms that maintaining group membership is more important hence remain part of certain groups but it does not necessarily mean that they trust their group

members. However, the differences in behaviour on how members trust others on SNS is certainly influenced by differences in cultural orientation.

### **Online Privacy concern**

Priming did seem to have an influence on cultural orientation on members which supports the findings in Study 2 as the differences in behaviour between members in UK and Indonesia is due to the causal role of culture. This was also further supported as it was seen that country difference had an effect on the how members perceived online privacy. The results also confirm that increase in individualism cultural orientation increased privacy concern among its members in Study 3 (see Chapter 7). However, this was quite the opposite in Study 2 (see sub section 5.8, Chapter 5) as the confirmed that the Indonesian sample were more concerned about their privacy online, although the effect was small. Although the results also confirmed that members from individualist countries showed concern about their privacy online, it was less than collectivist members. This difference in results could be attributed to the difference in sample size or even due to the reduced version of the online survey scale that might have failed to capture participant responses in its entirety.

Furthermore, Study 2 also confirmed that increase in activities and consistency of being present on SNS increased privacy concern for members with individualist cultural orientation, however only by browsing through SNS members became more cautious about their privacy among collectivist cultures. This certainly highlights the fact that the more members become aware of other's information, the more cautious they become. Alternatively, it could also be argued that there exists a better education facility in Western countries than among Eastern countries, due to which people might not be as concerned about the online risks.

# Chapter Eight

## Discussion

### 8.1. Overview of findings

*This chapter begins with the aim and overview of the research, followed by a discussion of the results in line with the hypotheses. In addition, the findings of the models, limitations and implications and future recommendations of the study are also discussed in the later sections.*

The aim of this research was to conduct a cross-cultural investigation to evaluate the effect of culture on the decisions, behaviours and attitudes people display online. While the study of human behaviour, and the study of the variables selected for this project, is at the heart of psychology, this research aimed to extend such efforts to an online environment based on the unprecedented popularity of SNS globally, with both benefits (Ellison et al., 2007; Myers, 2000) as well as adverse implications (Kuss & Griffiths, 2011; Kuss et al., 2013) documented by researchers. Facebook was used as the platform for understanding online communication behaviour across cultures, i.e., in the UK (representing an individualist culture), India and in Indonesia (both representing collectivist cultures). The research consisted of four studies. Study 1 was an online survey focused on scale development, Study 2 was the refined version from Study 1 and allowed for advanced model building, Study 3 was an experimental study with the aim of calibrating a priming manipulation and finally Study 4 was a developed and refined version of Study 3 looking at the effects of cultural priming on the core outcome variables. Using SEM models from the survey data and data from the experimental study, the results provided an insight how culture influences decisions and actions people take in an online environment with consequences at an interpersonal level and at a group level through a survey and priming experiment.

### Online Social Identity

Self-reported scores on online group identity, which looked at how much members related to their social group suggests that the time members invest on Facebook, i.e., through the hours they spend together and the number of days members logged consistently online had an effect on the identification with their group members. SEM models confirm that for the collectivists and

individualists, number of days and number of hours' members used Facebook increased group identity and not necessarily on type of activities which partially supported "H1: Facebook activities (type) and frequency (time) will mediate the relationship between culture and group identity such that increase in Facebook activity will increase the level of group identity". This is in line with SIT (Lea & Spears, 1991), where members rely on being available on SNS, which shows that they are loyal to their social network, irrespective whether they are actually contributing towards group goals or not.

Even though members are identifiable through their online profiles, there still exists some level of anonymity due to the lack of physical cues, which help members to openly relate to other group members, thereby resulting in stereotypical behaviours as they agree to group norms (Spears et al., 1990). Identification with the group members is crucial so that members can develop a social identity with the group (see SIT & SIDE). Furthermore, Indonesian participants reported a higher number of offline social contacts online, which would force them to behave in stereotypical ways (Douglas & McGarty, 2001) helping them maintain group harmony and giving them opportunity to self-enhance (Noel et al., 1995) as they might also be able to voice their opinions online more easily which might not have been possible before. On this basis, it is plausible why Indonesian participants identified with their social contacts more strongly than UK participants in Study 2 further supporting "H2: Group identification would be stronger among members from collectivist cultures than members from individualist cultures.". However, this was contrary to the results that were found in Study 4, where priming was used to manipulate cultural orientation, where participants in the UK identified with their social groups more strongly than the Indonesian participants. This failed to support "H13: Priming would have a significant positive effect on group identification when primed with consistent cultural orientation than when primed with inconsistent cultural orientation. Furthermore, Indonesian sample would score higher on group identification than UK sample" in Study 4. Although both results are contradicting to each other, it points out that in both cultures identification is a crucial requirement to develop one's social identity in an online world.

The type of Facebook activities did not help to establish group identification on SNS and did not act as a mediator between cultural orientation and identification. In the models in Study 3, the direct path from Facebook frequency (FB Days and FB HR) were quite similar for both cultural

orientations suggesting that dedicating time to use Facebook would help members from both cultures to identify with other members in the group. This could be easy for members from Individualist countries as they have been seen to spend more time on Facebook than the Indonesian sample which is also in line with past findings (ref). It is however argued that this difference could be due to factors influenced by the availability and access of the internet, social responsibilities or even social restrictions that might cause such difference in the use of Facebook.

## **Online Self-Enhancement**

Self-enhancement scores were based on comparing the difference in ratings on cultural specific attributes given by the participants for themselves in comparison to their Facebook social contacts. In Study 4, the priming conditions did not have an effect on participant responses, thereby failing to support “H14: Priming would have a significant effect on how members rated themselves when compared with others on cultural attributes, such that it helps them to self-enhance. It is further anticipated that members from both cultures would rate themselves higher on their cultural traits”. However, Study 4 confirmed that members from both collectivists and individualist countries self-enhanced more on collectivists attributes than on individualist attributes on SNS, when they are compared with others. This was an interesting highlight in the study as although the collectivists self-enhanced on their collectivist attributes, members from individualist culture interesting scored higher on collectivist attributes too unlike past research (Sedikides et al., 2005; Sedikides et al., 2007). However, while the Indonesian participants scored lower on individualist attributes than UK participants, as expected, Indonesians also scored lower on collectivist attributes than the UK participants which was unexpected. This had highlighted the influence of culture on how individuals perceive not just others but themselves too. As members from collectivist cultures, Indonesian participants avoided direct and open self-promotion and gave themselves lower ratings. Similarly, as UK participants come from individualist culture, they exhibited more direct self-promotion which led to stronger endorsement of attributes. However, as this was a comparison rating, the UK participants gave themselves higher ratings in both cultural attributes. These findings partly contradict previous claims (Heine & Lehman, 1999; Heine & Hamamura, 2007; Kitayama et al., 1997) that East Asians only self-enhance by self-criticism, however supports the claim that self-enhancement is an universal concept (Sedikides et al., 2003; Sedikides et al., 2005).

Social interactions on SNS attract members because of assumed psychological benefits that possibly result from such interactions. However, interactions on Facebook reduced feelings of self-enhancement in both the cultures in the models built in Study 2, which fails to support “H4: Facebook activities and Facebook frequency will mediate the relationship between cultural orientation of participants and their online self-enhancement such that increase in Facebook activities and FB frequency will increase self-enhancement in both cultures”. This is in contrast to past findings (Valkenburg et al., 2006; Zywicki & Danowski, 2008). However, these past studies had also highlighted that negative feedback could also damage self-esteem and well-being. It could be a possibility that members are concerned about the negative feedback they might receive due to which they don’t rely on the feeling of self-enhancement as predicted. Furthermore, even having social contacts on SNS, like Facebook failed to result in self-enhancement which failed to support “H5: There will be a positive relationship between number of Facebook friends’ participants have in both cultures and online self enhancement such that increase in number of social contacts on Facebook will increase feelings of self-enhancement for participants in both UK and Indonesia”.

## **Perceived Online Social Support**

In Study 2, the results supported “H6: Facebook activities (time and frequency) would mediate the relationship between culture and social support, such that an increase in user behaviour (Facebook activities and book Facebook frequency) would increase perceived social support for its members in both cultures.” and increase in Facebook activities increased perceived online social support for both individualists and collectivists. However, priming failed to have any effect on the scores of individuals which failed to support “H15: Priming would have a significant effect on social support when members are primed with consistent cultural orientation than when they are primed with inconsistent cultural orientation” as the results in Study 4 found that there was no effect of priming or country on the social support scores of participants across both cultures.

Interestingly, the results failed to support “H7: Increase in the number of social contacts on Facebook would have an impact on perceived social support that members receive online” in Study 2 as having high numbers of social contacts on SNS did not result in receiving social support as although the Indonesian sample had higher number of social contacts than the UK sample, they

scored lower on levels of social support. However, the results highlight the fact that interactions on SNS does lead to social support which has its benefits (Ellison et al., 2007; Valenzuela et al., 2009), however the role of cultural differences cannot be ignored. It could also be possible that members from collectivist cultures are anxious of getting negative feedback which can have adverse impact (Valkenburg et al., 2006) hence do not seek social support from their social contacts online. It could be argued that they fear that others might come to know that they are seeking social support from others which might also have adverse impact on their self-esteem. It is further argued that this is a compensatory behaviour for members who might not be able to seek online social support as even then such online interaction helps them to meet people online with whom they identify with (McKenna & Bargh, 2000). SNS can thus be seen to become a platform where members are not only able to maintain old ties and make new ones (Ellison et al., 2007), but it can also keep members happy (Myers, 2000). Such findings are especially crucial for individuals who have difficulty in establishing offline relationships as such support can help boost their self-esteem (Gonzales & Hancock, 2011). However, this study has highlighted that having a high number of social contacts on SNS might not always be providing social support and might be having a negative impact (Tong et al., 2008) as seen in the case of Indonesians as they scored lower on perceived social support which somewhat contradicts past findings (Myers, 2000) as even though Indonesian participants had higher number of online bonds, they scored less on social support than the UK participants. On the contrary (Kim, Sohn, & Choi, 2011) suggest that collectivists mainly use SNS to secure social support whereas individualists seek entertainment. It is therefore argued that in order to maintain potential online relationships who can provide social support in times of need, members need to have a truthful image of oneself and they should maintain a realistic number of friends on SNS which can vary between cultures. SNS can thus help members to display their social self rather than their personal self by displaying their profile information which forms their social identity benefitting members who might not always have the confidence to interact with others openly (Tajfel & Turner, 1979; Tajfel, 1978; Turner et al., 1989). Furthermore, the editable functionality on SNS is argued can also help members to provide information that displays group orientated behaviour (Klein et al., 2007) which can help members to develop a trusting relationship which they find it difficult to get offline. It might be due to this reason that both individualists and collectivists scored themselves higher on collectivist attributed which promotes group oriented behaviour as seen in Study 4. However the maintenance of trusting

relationship depends on providing a truthful representation of the members that is provided online (Gibbs et al., 2006) where members not only get subjective well-being of themselves but also helps members to receive more social support (Ko & Kuo, 2009; Zhao et al., 2008) and as such can also equip members to deal with negativities in life (Dunn et al., 2007; Steele, 1988). This further highlights that although SNS is useful in providing social support to its members, a truthful representation of oneself is required which promotes group behaviour. It is argued that although the Indonesian participants scored lower on perceived online social support scale, it also highlights the importance of the online platform as a potential and successful medium to provide social support to their members.

## **Online Trust**

SNS, like Facebook is a platform that helps members develop trust among its members which is crucial in an online environment (Jarvenpaa & Leidner, 1998) due to the level of anonymity that comes with it. Such level of trust would be more among social groups that have strong in-group bonding. This might be easier among members who might already know their social contacts offline. The online world allows its members to be exposed to a world which equips them to reach out to new friends and as such it is not always possible to have established offline relationship with their social contacts. While the development of online relationship is an extension of the offline relationship (Lampe et al., 2006), online behaviour of members would vary due to their cultural selves. The results in Study 4 partly supported “H16: Priming would have an effect on online trust. It is hypothesized that when members are primed with collectivism condition then it would increase online trust as it is anticipated that Indonesian participants would score higher in level of online trust than the UK participants. Alternatively, when members are primed with individualism condition then it would reduce their level of online trust for their social contacts”. Interestingly, the results confirmed that cultural orientation did have an impact on how individuals maintain trusting relationships online as having individualist attributes had been seen to increase the level of trust among members online. While SNS, like Facebook promotes individualist behaviour where members have the freedom to express their selves from their perspective, it can thus be argued that due to the level of anonymity that exists in such online environment, members promote their individualist selves to attract other members. It certainly highlights that when members are



able to portray their individualist selves, it leads to higher online trust than when they would portray their collectivist selves. It is however argued that there needs to be a balance of how members use their cultural selves as Study 1 (see sub section 4.33) confirmed that online trust was higher among members from collectivist countries than individualist countries.

Development of trust also helps when members show their involvement in group tasks. This was also partially supported in “H8. Activities and the frequency of Facebook use will mediate the relationship between culture and online trust, such that higher use of Facebook (activities and frequency) will increase online trust in both cultures” as the results confirmed that the activities that members undertook increased trust in both cultures and not how much time they spent on SNS. By being involved in the online activities members can portray their involvement and with time that helps in the development of trust among each other (Wilson et al., 2006) further helping them to establish their online communication. Furthermore, by being able to highlight their risk taking attitude online (Fogel & Nehmad, 2009), members are able to reduce perception of potential risks from other members as they are able to collect information about them (Metzger, 2004), thereby helping to develop a mutual trusting bond.

While this study confirmed that members from collectivist countries received less social support online than members from individualist countries could also be a reason why members from collectivist countries had less trust for their social contacts which failed to support “H9: Levels of trust would differ due to cultural differences such that collectivists would score higher on the level of trust for their members than individualists”. This falls in line with the findings by (Kim et al., 2011) and therefore, such findings will have real life implications as social support on SNS will help members enhance trusting relationships among social groups in an online environment which might be really crucial for members from collectivist countries. The activities members indulge in helps to persuade their group members that they are loyal, which helps to strengthen their identity performance (Klein, Spears, & Reicher, 2007) further helping them to accentuate their group membership (Lea et al., 2001; Postmes et al., 2001; Sassenberg & Postmes, 2002). Due to the level of anonymity online, such trusting interpersonal and intrapersonal relationships are crucial as there exists an agreement of reciprocity among the members. Such reciprocity (Yamagishi & Kiyonari, 2000) is therefore argued would be stronger when there exists a strong trusting bond, which based on the findings in this study is argued to be stronger among

members from individualist cultures than members from collectivist cultures, which might explain the reason for more passive interaction on SNS among collectivist social groups. Interestingly, as discussed before when the positive group identity is highlighted, members act in accordance to their cultural group norms. This was supported in the findings from the ratings on the “scenarios”. For example, when asked “While on Facebook I get a request to join a protest for a noble/ social cause. How likely would you join the protest?”, members from collectivist countries were more likely to join protest for a noble or a social cause. This further highlights the importance of cultural values on SNS as it promotes group behaviour and social responsibility (Markus & Kitayama, 1991). Additionally, when asked “While on Facebook I often seem to join social groups that has personal importance to me. How likely are you to act in a particular way?” members from collectivist countries were more likely to join social groups that had personal importance to them. This however not only confirms the interdependent self-construal of members from collectivist countries but also highlights that there exists a feeling of independence too on SNS among such members. It is argued that such result could be due to the fact that there exists some level of identifiability among members from on SNS which makes them feel more accountable (Douglas & McGarty, 2001). Furthermore, such behaviour also helps members to display their personal profile among others which helps them to voice their opinions which they not always be able to offline.

## **Online Privacy Concern**

The results highlight that privacy concern was evident among members from both cultures. While Study 2 confirmed that members from collectivist cultures were more concerned about their privacy concern and supported “H11: Privacy concern will be more explicit among members from collectivist cultures than members from individualist cultures, such that collectivists would score higher in their privacy concern than individualists”. On the contrary Study 4 confirmed that privacy concern was higher among members from individualist countries than members from collectivist countries which partially failed to support “H17: Priming would have an effect on levels of online privacy concern such that members from collectivist countries would score higher on the scores on privacy concern than members from individualist countries” and cultural orientation did have an effect as individualist attributes increased online privacy concern than collectivist attributes.

This could be due to the fact that there exist better education facilities available from various bodies that help members of public to be educated on the risks of online communication unlike countries in collectivist cultures where such facilities are still developing. However, when asked “7.3.10.3. While logging on Facebook I am reminded to update my privacy settings. How likely would you update your privacy settings?”, the results confirmed that collectivism increases the likelihood of updating privacy settings. Additionally, when members were asked “7.3.10.2. I log on my Facebook and receive a friend request from an unknown person. How likely will you accept the friend request?”, the results confirm that UK participants were more inclined to accept friend request from unknown person however increase in collectivism reduces this tendency. These findings highlight that in general collectivist attributes makes members become cautious about their online information and privacy risks which is in line with their cultural behaviour. While country differences highlight that there exist differences in user behaviour and tendency of members to ignore potential online risks associated with an interaction (Gross & Acquisti, 2005) due to the benefits that members achieve with such communication (Bender et al., 2011; Boyd, 2007; Culnan & Armstrong, 1999; Dinev & Hart, 2006; Lampe et al., 2007). While the results also highlight that participants in the UK were less likely to update privacy settings when reminded, also heightens the social responsibility for SNS providers to enhance privacy options for its members. Additionally, this study also calls for collectivists countries like Indonesia to enhance their education among people regarding online risks.

In order to have successful communication on SNS members need to involve in various activities to establish a connectivity with others in the group. The results confirmed that activities and frequency of use of SNS would increase privacy concern among members which partially supported “H10: There would be a negative relationship between Facebook activities (active & passive), Facebook frequency (days and hours spent) and online privacy concern, such that increase in Facebook activities and Facebook frequency would decrease privacy concern among online users”. It is argued that as members spend time online they collect information about other members which makes them predict their behaviours, thereby increasing their privacy concern. It is important to highlight the fact that the SNS equips members to be able to judge and decide the pros and cons of an interaction (Homans, 1958). While SNS provides the opportunity to its members to know about the personal lives of others which might not has always been possible before it is argued that such surveillance would only be possible when there are less restrictions as

members would be able to freely view information about others. It might be due to this reason that although members from individualist cultures are aware of the privacy risks they are less likely to update their privacy settings as it allows others to view their information and also allows them to view others information without restrictions (Gross & Acquisti, 2005) and build trust among each other (Culnan & Armstrong, 1999) as while the motive among individualist members is to entertain themselves whereas the motive among collectivists is to maintain their social ties through online communication (Kim, Sohn, & Choi, 2011). Being able to collect information about other members helps in identification with them which helps in depersonalization (Turner et al., 1987). However, while it is argued that depersonalization would lead to group bias, this study showed that group identification was more among the members from collectivist culture which highlights that group bias could be experienced higher among collectivist social groups than individualist social groups on SNS.

The high number of social contacts on Facebook among the Indonesian sample, suggest that while the social network among the Indonesian sample was more diverse than the UK sample which can potentially lead to online social tension especially if the social network has higher number of close family contacts (Binder et al., 2009) social identification and use of filter settings would possibly help to prevent such online tension which could be attained by increase in education about online risks and prevention in such countries. This would be crucial in a collectivist group as maintaining group harmony would be of prime importance to their self-identity (Markus & Kitayama, 1991; Singelis, 1994).

## **8.2. Limitations**

There had been unexpected challenges during data collection in India which had delayed the overall research process (see Chapter Three) that has prevented the inclusion of longitudinal data analysis. Therefore, future cross-cultural research should take such delays into account as unexpected delays in data collection could have an adverse impact on the researcher and can also have adverse impact on the research project. The cultural self-construal scale had a medium scale reliability which might have had an impact on the results. It is therefore advised that when using validated scales from past research to check the relevance of each item in the particular cultures

under investigation. This could be achieved by running a short focus group or a pilot study where participants can discuss whether they could relate to the items in the scale.

While this research did attempt to understand the effects of both cultural orientations (individualism and collectivism) at the same time, the results suggested that overall models containing only one dimension were better in capturing significant responses. However, some of the combined models also showed significant mediating effects of Facebook activities and Facebook usage. It should be noted that effects were mostly significant for individualist self-construal. This could be due to the fact although the survey items used in the cultural self-construal scale (Singelis, 1994) were from past validated study, their relevance at the present time has probably declined, which calls for such a scale to be improved based on current social situation. It might be that due to this reason, participants were not able to entirely relate to the situations that were given on the scale and this might have had an impact on the ratings. Furthermore, this was also supported by moderate scale reliability of the scale items too.

Furthermore, while this was a cross-cultural study understanding the impact of each psychological variable was important to fully understand differences in behaviour in both cultures. While attempt was made to analyse the data collected using four different mediators, it is important to highlight that all four mediators together make one construct, i.e., Facebook engagement. It was difficult to single out effects of the mediators in the models possibly because there exists a correlation between the mediators and as such future research should take its effect into consideration while running similar analysis.

### **8.3 Contributions of the Study**

The current research highlights some important contributes to the existing body of literature on culture and communication on social media. This study evaluated the role of culture cross-culturally on several psychological variables at the same time, which might have not been attempted before. Besides this study extended the concept of SIT, SCT and SIDE to explore the cultural dimensions in-depth. The study explored the use of several mediators to explore the effect too. Furthermore, while there has been a lot of research focusing on data collected from Western

population, this study was able to address this issue by using data collected from native participants from individualist and collectivist countries.

While the use of SNS is a global phenomenon and has become part of our lives, its use is not restricted to any particular culture. This cross-cultural research has been able to shed light on cross-cultural usage and activities in different cultures. While this study has successfully highlighted how use of social media varies across cultures and affects behaviour of its members, it also highlights the importance of understanding these cross-cultural changes over time as new generations develop over time who are digital natives, who are now growing up with Facebook which is experiencing rapid changes in privacy and usage provisions.

## **8.4. Implications and Future Research**

The findings of this research sheds lights on the cultural influence on the attitudes and behaviours of individuals in an online environment. While the above findings have been successful in highlighting the role of culture in line with the SIT, SCT and SIDE, the present study failed to attain models with included all the four mediators (FB Active, FB Passive, FB Days and FB HR) in one single model along with both cultural orientation (collectivism and individualism) which calls for further research.

While this research focused on evaluating the role of culture on various psychological variables, it was however not possible to check other factors that could have also had an effect. The globalisation of the use of SNSs, where members from both cultural dimension actively participates in protests, demonstration and igniting mass hatred calls for further investigation. In order to fully understand online behaviour it is therefore important to evaluate other factors that affects members online, e.g., effect of religious beliefs on the attitudes and behaviour of members on SNS. Additionally, while this research considered the two cultural dimensions (collectivism and individualism) formulated by Hofstede (1980), further research should consider other cultural dimensions in understanding cultural differences.

As Facebook, has been developed with an individualist culture in mind, the above findings can also be useful for web developers who could consider developing an Eastern style Facebook which

could promote behaviours that are specific to Eastern culture. The results achieved could also help future web developers to develop applications that might be able to cater to specific cultural group which could assist members with privacy settings and provide cultural specific information. The results highlight the differences in the perception of online risks across cultures and further highlights the importance of online education among social network sites users.

The results are not only important for social researchers but would be beneficial for health professionals and also the general population, as it not only help to understand the behaviour of people in different cultures, it could also be beneficial for understanding various online behaviour like online protests, internet addiction and online support. Although this research was not fully able to understand the effect of culture on social support members receive online, it however, paves a path for future researchers to evaluate this further as the results could be useful for development and implementation of online focus groups and online support that could be benefit a wider population. Additionally, the results can help web developers and marketers understand how culture influences behaviour online, thereby can help them target their products to specific cultural group of consumers.

## **8.5. Conclusion**

The main objective of this cross-cultural research was to evaluate the role of culture on user behaviour on SNS. Facebook was used as platform to collate online data due to its increasing popularity. Self-reported data was collected from UK (representing individualist culture), India and Indonesia (representing collectivist culture) in the form of survey and experiment. While Study 1 (scale development) and Study 2 consisted of online study, Study 3 (scale development) and Study 4 consisted of priming experiments. The results confirm that difference in responses on various psychological variables like online group identity, online self-enhancement, perceived online social support, online trust and online privacy concern were evident due to the influence of cultural orientation and country differences. It is therefore hoped that based on the findings in this study, future researchers consider not just country differences but also differences in cultural orientation of members online when they are evaluating online user behaviour.

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# **Appendix 1**

## **Study 1: Survey (Operationalization)**

### **Facebook Culture**

**Thank you for volunteering to participate in this survey.**

**Before you undertake the survey please read the below information carefully.**

**IMPORTANT -- Are you a member of Facebook?**

**If Yes -- Please read the information carefully and continue with the survey.**

**If No -- Sorry you will not be able to participate in the study as this study also looks at on line activities on Facebook.**

## **Participation Information and Consent**

Thank you for volunteering to participate in this online survey. Before you undertake the survey please read the below information carefully.

### **Aims of the research:**

This research looks at your activities and behaviour based on your interactions with your Facebook and non-Facebook (offline) contacts. This study is being undertaken for PhD research.

### **What will I be asked to do if I agree to take part?**

All questions in the survey aim to understand your activities and behaviour based on your interactions with your Facebook and non-Facebook (offline) contacts.

After each question you will either be asked to enter your response with a yes/no or a value or choose your best choice from a scale.

The first part is about the number and type of social contacts that you maintain and how you feel about your social networks. In the second part you will be asked to describe how you are making use of Facebook. In addition, there are some questions about your general behaviour in social contexts.

Please read the questions carefully before you respond as once submitted you cannot go back to the previous sections to amend your answers. After you make your choice please rate your response with your best answer. The survey will last approximately 20 - 30 minutes.

### **Will my data be anonymous?**

Yes, your data will be anonymous. Name requirement is optional. However as this is a study on cultural impact on communication behaviour your ethnicity, gender, age and country of residence, nationality and first language will be required to make accurate inference from the data collected. Apart from this no other personal information of identity will be required for this survey.

Summaries of non-personal data (data that can't be linked to you) such as your responses and demographic information may be retained long-term as part of a larger data set for publication or teaching purposes.

Participation in the lottery is your decision for which your name and contact details will need to be submitted. This information will be kept separate to the survey information and will only be used for carrying out the lottery.

### **Do I have to take part?**

Your participation in the survey will be entirely your choice. You are free to end the survey at any point of your participation. If you want that your data be destroyed please contact me or my Director of Studies within two weeks of completing the survey. My contact information is moon.halder2007@my.ntu.ac.uk or my Director of Studies at [Jens.Binder@ntu.ac.uk](mailto:Jens.Binder@ntu.ac.uk) (see full contact details below).

Important information to consider:

- This study has been ethically approved by the University Research Committee.
- Your responses will be kept anonymous and will be treated as strictly confidential. Responses collated will be stored in a safe place once the survey is closed.
- The responses will be used for research purposes and the statistical analyses will be used in conferences and journal articles.

If you have queries please contact:

Moon Moon Halder (PhD Researcher)

Email: [moon.halder@my.ntu.ac.uk](mailto:moon.halder@my.ntu.ac.uk)

Director of studies: Dr. Jens Binder

Email: [Jens.Binder@ntu.ac.uk](mailto:Jens.Binder@ntu.ac.uk)

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### 1) Declaration:

By continuing on the next page you agree that the information provided is enough for you to know about the study and you agree to take part. This is also taken as confirmation that you are 18 or above.

Please confirm by adding a tick (✓) beside each sentence.

- 1) The study aims and designs has been clearly outlined. ☐
  - 2) I am aware that I can withdraw at any point of the study. ☐
  - 3) I am aware of what I would be expected to do in the study. ☐
  - 4) I am happy to volunteer. ☐
-

## 2) Demographics:

Please tick (✓) or give an answer where applicable:

- a) Please add a unique code that will be used for you. This can be a combination of any number or letter. This is the code that you can use to contact us in case you have any queries or if you want to withdraw your data.

(e.g., your favourite colour, your favourite letter with any number, etc.)

- 
- b) Gender: Please tick (✓) the your Gender : Male ☐ Female ☐
- c) Age: Please provide your Age in years:
- d) Ethnicity: Please provide your Ethnicity (e.g., Indian, British, etc.)
- e) Work: Please tick the one that is applicable to you.
- i) Employed (full time) ☐ ii) Employed (part-time) ☐ iii) Unemployed ☐
- iv) Student (full time) ☐ v) Student (part-time) ☐
- f) Country of Residence: Please provide the name of the Country
- g) Nationality: What is your Nationality?
- h) Town/ City this survey is conducted in: Please provide the name of the Town or City
- i) Language: What is your First Language?
- j) What was your last English (subject) School/College/ University grade? (e.g., 40, 45, 65., etc.)
-

## Your Social World:

3) Do you use any other Social Network sites apart from Facebook – if so, please select from the list.

- a) Twitter ☐      b) WhatsApp ☐      c) Instagram ☐      d) LinkedIn ☐  
e) Bebo ☐      f) Orkut ☐      g) I don't use any other social network site ☐
- 

4) Please provide the names of any other social network sites that you might also be using (apart from the ones named above) in the box below (optional).

5) How often do you use other Social Network Sites apart from Facebook? (Please provide **average number of hours that you spend per day** in numbers only).

---

### 6) Number of people I know on Facebook and Offline.

Offline contacts include members with who you interact in your day to day life and they might also be on your Facebook contacts.

For this section you don't have to count your social contacts on Facebook. Your response don't have to be accurate but a quick estimate of the number of people you know on Facebook. For the categories you don't know anyone please put a "0".

Number of people I know on:	FACEBOOK	OFFLINE <i>(this can also include contacts who are also on your friends list on Facebook)</i>
Immediate family	<input type="text"/>	<input type="text"/>

Other birth family	<input type="text"/>	<input type="text"/>
Family of spouse or significant other	<input type="text"/>	<input type="text"/>
Co-workers	<input type="text"/>	<input type="text"/>
People at work but don't work with directly	<input type="text"/>	<input type="text"/>
Best friends/confidantes	<input type="text"/>	<input type="text"/>
People known through hobbies/recreation	<input type="text"/>	<input type="text"/>
People from religious organisations	<input type="text"/>	<input type="text"/>
People from other organisations	<input type="text"/>	<input type="text"/>
School relations	<input type="text"/>	<input type="text"/>
Neighbours	<input type="text"/>	<input type="text"/>
Just friends	<input type="text"/>	<input type="text"/>
People known through others	<input type="text"/>	<input type="text"/>
Childhood relations	<input type="text"/>	<input type="text"/>
People who provide a service	<input type="text"/>	<input type="text"/>

7) **Think about your Facebook contacts now.** Please give a quick estimate from how many of your Facebook contacts you would seek advice, support or help in times of severe emotional or financial crisis.

8) Again **think about the people you know on Facebook**. How often have you received the kind of social support listed below.

	None of the time	A little of the time	Some of the time	Most of the time	All of the time
i) Someone you can count on to listen to you when you need to talk					
ii) Someone who provides you with information to help you understand a situation					
iii) Someone to give you good advice on crisis					
iv) Someone to confide in or talk to about yourself or your problems					
v) Someone whose advice you really want					
vi) Someone to share your most private worries and fears with					
vii) Someone whom you can turn to deal with personal problems					
viii) Someone who understands your problems					
i) Someone with whom you can have a good time with					
ii) Someone who can help you get your mind off things					

### Facebook Use:

9) Please indicate the number of days that you have used Facebook in the last 14 days.

10) Please provide the average number of hours (in minutes) that you have used Facebook in the last 14 days.

*Additional Information: 1 hour = 60 minutes*

*So if you have spent an average of 2 hours in total on Facebook in the last 14 days, your answer should be 120*

11) For this part of the survey, please take a few minutes to think about your social interactions on Facebook in the last 14 days. This indicates all situations where you have used your Facebook account. Please note that situations here also includes interactions for which the other person was not present or you have not received any response.

**Please put an average number of minutes per day (in numbers only) spent on your social interaction.**

*Additional Information: 1 hour = 60 minutes*

*So if you have spent an average of 1 hour in total on Facebook, your answer should be 60*

	<b>Facebook used Per weekday</b> (average number of minutes spent)	<b>Facebook used Per weekend day</b> (average number of minutes spent)
<b>Study</b> –used Facebook solely for study purpose	<input type="text"/>	<input type="text"/>
<b>Work</b> - used Facebook solely for work purpose	<input type="text"/>	<input type="text"/>
<b>Social Life</b> – used Facebook just for socialising	<input type="text"/>	<input type="text"/>
<b>Mixed</b> - used Facebook for work/study and socialising on at the same time	<input type="text"/>	<input type="text"/>

## Activities on Facebook:

12) In the **last 14 days** how often (on average) have you engaged in the following activities on Facebook?

\*\*\*Please rate the below activities based on your best ratings\*\*\*

	<b>How often (on average) do you use Facebook for the following activities:</b>	<b>Never</b>	<b>Rarely</b>	<b>Sometimes</b>	<b>Often</b>	<b>Very often</b>
a)	Playing Games (one player games)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b)	Status Updates	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c)	Sharing Links	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



f)	Private Messages	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g)	Commenting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h)	Facebook Chat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i)	Checking up	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l)	Events	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m)	Posting Photos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n)	Tagging Photos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k)	Viewing Photos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j)	Posting Videos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d)	Tagging Videos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e)	Viewing Videos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13.a) In this section you will first be asked to rate the sentences on the left. **These sentences are in relation to Facebook use and your Facebook contacts.** The next section (13.b) will have similar questions but has to be answered in relation to your overall social contacts (*Overall social contacts includes your offline and Facebook contacts together*).

**\*\*\*Please rate the following in relation to your Facebook contacts and Facebook use\*\*\***

		Disagree strongly	Disagree	Neither agree or disagree	Agree	Agree strongly
a)	I have respect for elders with whom I interact					
b)	It is important for me to maintain harmony within my social group					
c)	My happiness depends on the happiness of those around me					
d)	I would offer my seat in a bus to my professor					
e)	I respect people who are humble about themselves					
f)	I will sacrifice my self-interest for the benefit of the social group I am in					
g)	I often have the feeling that my relationships with others are more important than my own accomplishments					

h)	I should take into consideration my parents' advice when making education/ career plans					
i)	It is important to me to respect decisions made by my social group					
j)	I will stay in a group if they need me, even when I am not happy with the group					
k)	If my brother or sister fails, I feel responsible					
l)	Even when I strongly disagree with my social group members, I avoid an argument					

13.b) In this section you will first be asked to rate the sentences on the left. **These sentences are in relation to your overall social contacts.** (Overall social contacts includes your offline and Facebook contacts together).

**\*\*\*Please rate the following in relation to your overall social contacts** (Overall social contacts includes your offline and Facebook contacts together).\*\*\*

	Please rate these below sentences based on your Overall Social Contacts	Disagree strongly	Disagree	Neither agree or disagree	Agree	Agree strongly
a)	I have respect for elders with whom I interact					
b)	It is important for me to maintain harmony within my social group					
c)	My happiness depends on the happiness of those around me					
d)	I would offer my seat in a bus to my professor					
e)	I respect people who are humble about themselves					
f)	I will sacrifice my self-interest for the benefit of the social group I am in					
g)	I often have the feeling that my relationships with others are more important than my own accomplishments					
h)	I should take into consideration my parents' advice when making education/ career plans					

i)	It is important to me to respect decisions made by my social group					
j)	I will stay in a group if they need me, even when I am not happy with the group					
k)	If my brother or sister fails, I feel responsible					
l)	Even when I strongly disagree with my social group members, I avoid an argument					

14.a) In this section you will first be asked to rate the sentences on the left. **These sentences are in relation to Facebook use and your Facebook contacts.** The next section (14.b) will have similar questions but has to be answered in relation to your Overall Social Contacts (*Overall social contacts includes your offline and Facebook contacts together*).

**\*\*\*Please rate the following in relation to your Facebook contacts and Facebook use\*\*\***

		Disagree strongly	Disagree	Neither agree or disagree	Agree	Agree strongly
a)	I'd rather say "No" directly, than risk being misunderstood					
b)	Speaking up is not a problem for me					
c)	Having a lively imagination is important to me					
d)	I am comfortable on being singled out for praise or rewards					
e)	I am the same person at home that I am during social gathering					
f)	Being able to take care of myself is a primary concern to me					
g)	I act the same way no matter who I am with					
h)	I feel comfortable using someone's first name soon after I meet them, even when they are much older than I am					
i)	I prefer to be direct and forthright when dealing with people I've just met					

j)	I enjoy being unique and different from others in many respects					
k)	My personal identity is very important to me					
l)	I value being in good health above everything					

14. b) In this section you will first be asked to rate the sentences on the left. **These sentences are in relation to your overall social contacts.** (*Overall social contacts includes your offline and Facebook contacts together*).

**\*\*\*Please rate the following in relation to your overall social contacts** (*Overall social contacts includes your offline and Facebook contacts together*).\*\*\*

		Disagree strongly	Disagree	Neither agree or disagree	Agree	Agree strongly
a)	I'd rather say "No" directly, than risk being misunderstood					
b)	Speaking up is not a problem for me					
c)	Having a lively imagination is important to me					
d)	I am comfortable on being singled out for praise or rewards					
e)	I am the same person at home that I am during social gathering					
f)	Being able to take care of myself is a primary concern to me					
g)	I act the same way no matter who I am with					
h)	I feel comfortable using someone's first name soon after I meet them, even when they are much older than I am					
i)	I prefer to be direct and forthright when dealing with people I've just met					
j)	I enjoy being unique and different from others in many respects					
k)	My personal identity is very important to me					
l)	I value being in good health above everything					

## Use of settings on Facebook:

15) This section looks at the use of settings on Facebook. Please give your truthful answers.

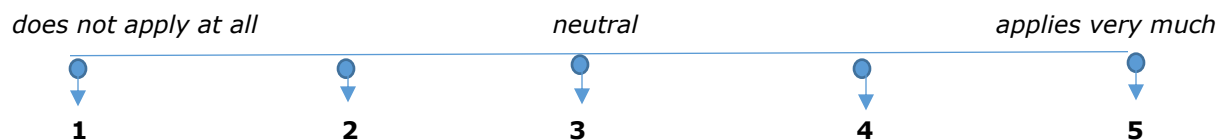
Please rate the below sentences as per your Facebook usage	Disagree strongly	Disagree	Neither agree or disagree	Agree	Agree strongly
a) I like to use filter setting to group my social contacts on Facebook	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b) Using filter settings is important for me as it helps me to be open in my opinions on Facebook	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c) I keep myself up-to-date with changes in privacy settings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d) I don't care who looks on my Facebook profile	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e) I always update my security settings on my Facebook account	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f) I am fully aware of the use of privacy settings on Facebook	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g) I get worried about people being able to view my personal information on Facebook	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## You and your social contacts:

16) In this section please **rate yourself, your Facebook contacts and your Offline contacts from a scale of 1 to 5.**

*Additional information: Facebook contacts includes your contacts that are on your Facebook contact lists. It can also include Facebook members that you know offline as well.*

*Offline contacts includes your social contacts with whom you interact away from the online world but might also be some of your Facebook contacts.*



<b><u>Attributes</u></b>	<b><u>You</u> 1 = does not apply at all 5 = applies very much</b>	<b><u>Facebook Contacts</u> 1 = does not apply at all 5 = applies very much</b>	<b><u>Offline Social Contacts</u> 1 = does not apply at all 5 = applies very much</b>
a) Respectful			
b) Independent			
c) Compliant			
d) Separate			
e) Tolerant			
f) Unconstrained			
g) Compromising			
h) Free			
i) Loyal			
j) Leader			
k) Self-sacrificing			
l) Unique			
m) Modest			
n) Original			

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17) This section looks at you and your social contacts on Facebook and **how much you trust your social contacts on Facebook**. Please rate the below sentences truthfully.

	<b>Members on my Facebook contacts:</b>	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neither agree or disagree</b>	<b>Agree</b>	<b>Strongly agree</b>
a)	Do their best to help me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b)	Do care about the well-being of others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c)	Are open and receptive to the needs of each other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d)	Are honest in dealing with each other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e)	Keep their promises	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f)	Are trustworthy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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18) This section is an attempt to check **how much you identify with your social contacts on Facebook**. Please rate the below sentences truthfully.

	Please rate the below sentences in relation to Facebook	Disagree strongly	Disagree	Neither agree or disagree	Agree	Agree strongly
a)	I see myself as a member of my Facebook community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b)	It is important for me to be a member of my Facebook community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c)	I am not glad to be a member of my Facebook community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d)	I like being a member of my Facebook community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e)	I am not proud to be a member of my Facebook community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f)	I do not like being a member of my Facebook community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**You have done it. Thank you for your participation.**

If you have any comments, complaints or suggestions, use the text box or contact the address given below with your unique id and email/address (optional).

**Comments/Suggestions:**

**Contact address:**

Moon Moon Halder (PhD Researcher)  
Email: [moon.halder2007@my.ntu.ac.uk](mailto:moon.halder2007@my.ntu.ac.uk)

Director of studies: Dr. Jens Binder

Email: [Jens.Binder@ntu.ac.uk](mailto:Jens.Binder@ntu.ac.uk)

Nottingham Trent University  
School of Social Sciences  
Burton Street  
Nottingham  
NG1 4BU



### **Debrief Form: Survey**

**Thank you for your participation!**

#### **Aims of the Research:**

This research looks at the impact of culture on communication behaviour and social identity on Online Social Media.

This study is being conducted in conjunction with an Experiment to investigate how members in a social media environment can get primed due to environment factors around them which can have an impact on their cultural and social identity. The data collected will be analysed using statistical methods. We expect to find that priming will have an impact on culture and communication behaviour. Thank you for taking part in the study. If you want to know more about this research, have any questions or suggestions or simply want to find out the progress later please don't hesitate to contact either me or my Director of Studies.

Further, if you wish to withdraw your data from this study, please contact me within 14 days of the study quoting your unique identifier.

#### **If you have queries please contact:**

Moon Moon Halder (PhD Researcher)  
Email: [Moon.Halder2007@my.ntu.ac.uk](mailto:Moon.Halder2007@my.ntu.ac.uk)

Director of studies: Dr. Jens Binder  
Email: [Jens.Binder@ntu.ac.uk](mailto:Jens.Binder@ntu.ac.uk)

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## **Appendix 2**

### **Study 1: Survey (Facebook responses)**

#### **Facebook Culture**

**Thank you for volunteering to participate in this survey.**

**Before you undertake the survey please read the below information carefully.**

**IMPORTANT -- Are you a member of Facebook?**

**If Yes -- Please read the information carefully and continue with the survey.**

**If No -- Sorry you will not be able to participate in the study as this study also looks at on line activities on Facebook.**

## **Participation Information and Consent**

Thank you for volunteering to participate in this online survey. Before you undertake the survey please read the below information carefully.

### **Aims of the research:**

This research looks at your activities and behaviour based on your interactions with your Facebook and non-Facebook (offline) contacts. This study is being undertaken for PhD research.

### **What will I be asked to do if I agree to take part?**

All questions in the survey aim to understand your activities and behaviour based on your interactions with your Facebook and non-Facebook (offline) contacts.

After each question you will either be asked to enter your response with a yes/no or a value or choose your best choice from a scale.

The first part is about the number and type of social contacts that you maintain and how you feel about your social networks. In the second part you will be asked to describe how you are making use of Facebook. In addition, there are some questions about your general behaviour in social contexts.

Please read the questions carefully before you respond as once submitted you cannot go back to the previous sections to amend your answers. After you make your choice please rate your response with your best answer. The survey will last approximately 30 minutes.

### **After the survey:**

As a thank you for your support you can enter a lottery at the end of the survey. Each participant will have the chance to win Amazon Vouchers worth £20.00. The winners will be informed by email.

### **Will my data be anonymous?**

Yes, your data will be anonymous. Name requirement is optional. However as this is a study on cultural impact on communication behaviour your ethnicity, gender, age and country of residence, nationality and first language will be required to make accurate inference from the data collected. Apart from this no other personal information of identity will be required for this survey.

Summaries of non-personal data (data that can't be linked to you) such as your responses and demographic information may be retained long-term as part of a larger data set for publication or teaching purposes.

Participation in the lottery is your decision for which your name and contact details will need to be submitted. This information will be kept separate to the survey information and will only be used for carrying out the lottery.

### **Do I have to take part?**

Your participation in the survey will be entirely your choice. You are free to end the survey at any point of your participation. All you need to do is click the exit option. If you want that your data be destroyed please contact me or my Director of Studies within two weeks of completing the survey. My contact information is moon.halder2007@my.ntu.ac.uk or my Director of Studies at [Jens.Binder@ntu.ac.uk](mailto:Jens.Binder@ntu.ac.uk) (see full contact details below).

Important information to consider:

- This study has been ethically approved by the University Research Committee.
- Your responses will be kept anonymous and will be treated as strictly confidential. Responses collated will be stored in a safe place once the survey is closed.

- The responses will be used for research purposes and the statistical analyses will be used in conferences and journal articles.

If you have queries please contact:

Moon Moon Halder (PhD Researcher)  
Email: [moon.halder@my.ntu.ac.uk](mailto:moon.halder@my.ntu.ac.uk)

Director of studies: Dr. Jens Binder  
Email: [Jens.Binder@ntu.ac.uk](mailto:Jens.Binder@ntu.ac.uk)

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By continuing on the next page you agree that the information provided is enough for you to know about the study and you agree to take part. This is also taken as confirmation that you are 18 or above.

**\*\*\*\*\*Advice – When filling the survey please try to give your truthful responses. Please remember you will not be able to return back to your submitted answers so please take as much time as possible on each question.\*\*\*\*\***

## 1) Demographics:

Please tick which is relevant to you:

	Male	Female
<b>a) Gender</b>		

	Please provide your age in years
<b>b) Age</b>	

<b>c) Ethnicity</b>	How would you describe your ethnicity (e.g. White, British, British Asian, Indian, etc.)

	Employed (full time)	Employed (part time)	Unemployed	Student (full time)	Student (part time)
<b>d) Work</b>					

	Please provide the name of the country
<b>e) Country of Residence</b>	

	Please provide your Nationality
<b>f) Nationality</b>	

	Your first Language
<b>g) Language</b>	

---

## Your Social World:

2) Do you use any other Social Network sites apart from Facebook – if so, please select from the list.

a) Twitter ☐      b) Instagram ☐      c) LinkedIn ☐      d) Bebo ☐      e) Orkut ☐

---

3) Please provide the names of any other social network sites that you might also be using (apart from the ones named above) in the box below.

--

4) How often do you use other Social Network Sites apart from Facebook? Please provide **average number of hours that you spend per day** in numbers only).

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**5) Number of people I know on Facebook and Online.**

<b>Number of people I know on:</b>	<b>FACEBOOK</b>	<b>OFFLINE</b> <i>(this can also include contacts who are also on your friends list on Facebook)</i>
Immediate family	<input type="text"/>	<input type="text"/>
Other birth family	<input type="text"/>	<input type="text"/>
Family of spouse or significant other	<input type="text"/>	<input type="text"/>
Co-workers	<input type="text"/>	<input type="text"/>
People at work but don't work with directly	<input type="text"/>	<input type="text"/>
Best friends/confidantes	<input type="text"/>	<input type="text"/>
People known through hobbies/recreation	<input type="text"/>	<input type="text"/>
People from religious organisations	<input type="text"/>	<input type="text"/>
People from other organisations	<input type="text"/>	<input type="text"/>
School relations	<input type="text"/>	<input type="text"/>
Neighbours	<input type="text"/>	<input type="text"/>
Just friends	<input type="text"/>	<input type="text"/>
People known through others	<input type="text"/>	<input type="text"/>
Childhood relations	<input type="text"/>	<input type="text"/>

People who provide a service

6) **Think about your Facebook contacts now.** Please give a quick estimate from how many of your Facebook contacts you would seek advice, support or help in times of severe emotional or financial crisis.

7) Again **think about the people you know on Facebook.** How often have you received the kind of social support listed below.

	None of the time	A little of the time	Some of the time	Most of the time	All of the time
i) Someone you can count on to listen to you when you need to talk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ii) Someone who provides you with information to help you understand a situation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
iii) Someone to give you good advice on crisis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
iv) Someone to confide in or talk to about yourself or your problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
v) Someone whose advice you really want	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
vi) Someone to share your most private worries and fears with	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
vii) Someone whom you can turn to deal with personal problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
viii) Someone who understands your problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i) Someone with whom you can have a good time with	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ii) Someone who can help you get your mind off things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Facebook Use:

8) Please indicate the number of days that you have used Facebook in the last 14 days.

9) Please provide the average number of hours (in numbers) that you have used Facebook in the last 14 days.

10) For this part of the survey, please take a few minutes to think about your social interactions on Facebook in the last 14 days. This indicates all situations where you have used your Facebook account. Please note that situations here also includes interactions for which the other person was not present or you have not received any response.

**Please put an average number of hours per day (in numbers only) spent on your social interaction.**

	Facebook used Per weekday	Facebook used Per weekend day
<b>Study</b> –used Facebook solely for study purpose	<input type="text"/>	<input type="text"/>
<b>Work</b> - used Facebook solely for work purpose	<input type="text"/>	<input type="text"/>
<b>Social Life</b> – used Facebook just for socialising	<input type="text"/>	<input type="text"/>
<b>Mixed</b> - used Facebook for work/study and socialising on at the same time	<input type="text"/>	<input type="text"/>

## Activities on Facebook:

11) In the **last 14 days** how often (on average) have you engaged in the following activities on Facebook?

\*\*\*Please rate the below activities based on your best ratings\*\*\*

	How often (on average) do you use Facebook for the following activities:	Never	Rarely	Sometimes	Often	Very often
--	---	-------	--------	-----------	-------	---------------



a)	Playing Games (one player games)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b)	Status Updates	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c)	Sharing Links	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f)	Private Messages	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g)	Commenting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h)	Facebook Chat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i)	Checking up	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l)	Events	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m)	Posting Photos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n)	Tagging Photos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k)	Viewing Photos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j)	Posting Videos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d)	Tagging Videos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e)	Viewing Videos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12) In this section you will first be asked to rate some questions in relation to FACEBOOK. The next section (11) will have similar questions but has to be answered in relation to your OVERALL SOCIAL CONTACTS.

**\*\*\*Please rate the following in relation to your Facebook contacts\*\*\***

		<b>Disagree strongly</b>	<b>Disagree</b>	<b>Neither agree or disagree</b>	<b>Agree</b>	<b>Agree strongly</b>
a)	I have respect for the authority figures with whom I interact	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b)	I'd rather say "No" directly, than risk being misunderstood	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c)	It is important for me to maintain harmony within my group	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d)	Speaking up is not a problem for me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e)	Having a lively imagination is important to me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f)	I respect people who are modest about themselves	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

g)	I will sacrifice my self-interest for the benefit of the group I am in	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h)	Being able to take care of myself is a primary concern to me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i)	I often have the feeling that my relationships with others are more important than my own accomplishments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j)	I act the same way no matter who I am with	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k)	It is important to me to respect decisions made by the group	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l)	I prefer to be direct and forthright when dealing with people I've just met	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m)	I will stay in a group if they need me, even when I am not happy with the group	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n)	I enjoy being unique and different from others in many respects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o)	My personal identity independent of others, is very important to me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
p)	Even when I strongly disagree with group members, I avoid an argument	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

### 13) In this section please take into consideration your OVERALL SOCIAL CONTACTS

Please rate the following in relation to your Overall Social Contacts. **This includes both Facebook and Offline contacts.**

		<b>Disagree strongly</b>	<b>Disagree</b>	<b>Neither agree or disagree</b>	<b>Agree</b>	<b>Agree strongly</b>
a)	I have respect for the authority figures with whom I interact	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b)	I'd rather say "No" directly, than risk being misunderstood	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c)	It is important for me to maintain harmony within my group	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d)	Speaking up is not a problem for me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e)	Having a lively imagination is important to me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f)	I respect people who are modest about themselves	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

g)	I will sacrifice my self-interest for the benefit of the group I am in	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h)	Being able to take care of myself is a primary concern to me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i)	I often have the feeling that my relationships with others are more important than my own accomplishments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j)	I act the same way no matter who I am with	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k)	It is important to me to respect decisions made by the group	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l)	I prefer to be direct and forthright when dealing with people I've just met	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m)	I will stay in a group if they need me, even when I am not happy with the group	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n)	I enjoy being unique and different from others in many respects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o)	My personal identity independent of others, is very important to me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
p)	Even when I strongly disagree with group members, I avoid an argument	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## 14) Use of settings on Facebook.

Please rate the following sentences as per your Facebook usage.

	Disagree strongly	Disagree	Neither agree or disagree	Agree	Agree strongly
I like to use filter setting to group my social contacts on Facebook	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using filter settings is important for me as it helps me to be open in my opinions on Facebook	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I keep myself up-to-date with changes in privacy settings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I don't care who looks on my Facebook profile	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I always update my security settings on my Facebook account	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am fully aware of the use of privacy settings on Facebook	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I get worried about people being able to view my personal information on Facebook	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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## You and your social contacts:

15) In this section please rate yourself as compared with your contacts.

<b><u>Attributes</u></b>	<b><u>You</u></b> (0 = does not apply at all 5 = applies very much highest score)	<b><u>Facebook Contacts</u></b> (0 = does not apply at all 5 = applies very much highest score)	<b><u>Offline Social Contacts</u></b> (0 = does not apply at all 5 = applies very much highest score)
a) Respectful			
b) Independent			
c) Compliant			
d) Separate			
e) Tolerant			
f) Unconstrained			
g) Compromising			
h) Free			
i) Loyal			
j) Leader			
k) Self-sacrificing			
l) Unique			
m) Modest			
n) Original			

16) In this section please rate the below sentences in relation to your social contacts connected to your Facebook profile on **how much you Trust your Facebook social contacts**.

	<b>Members connected on my FACEBOOK PROFILE will:</b>	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neither agree or disagree</b>	<b>Agree</b>	<b>Strongly agree</b>
a)	Do their best to help me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b)	Do care about the well-being of others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c)	Are open and receptive to the needs of each other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

d)	Are honest in dealing with each other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e)	Keep their promises	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f)	Are trustworthy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

17) In this section please **rate yourself in comparison with your social contacts on your friends list on Facebook.**

		<b>Disagree strongly</b>	<b>Disagree</b>	<b>Neither agree or disagree</b>	<b>Agree</b>	<b>Agree strongly</b>
a)	I see myself as a member of my Facebook community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b)	It is important for me to be a member of my Facebook community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c)	I am not glad to be a member of my Facebook community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d)	I like being a member of my Facebook community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e)	I am not proud to be a member of my Facebook community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f)	I do not like being a member of my Facebook community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

You have done it. Thank you for your participation.

If you want to be entered in the lottery draw to have a chance to win Amazon Vouchers worth £20.00, please enter your name, contact details and email address below. Please be assured these details will solely be used for lottery purpose and will be destroyed once the draw has been completed.

**Name:**

**Address:**

**Email address:**

If you have any comments, complaints or suggestions, use the text box or contact the address given below.

**Comments/Suggestions:**

**Contact address:**

Moon Moon Halder (PhD Researcher)  
Email: [moon.halder2007@my.ntu.ac.uk](mailto:moon.halder2007@my.ntu.ac.uk)

Director of studies: Dr. Jens Binder  
Email: [Jens.Binder@ntu.ac.uk](mailto:Jens.Binder@ntu.ac.uk)

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Nottingham  
NG1 4BU

### **Debrief Form: Survey**

**Thank you for your participation!**

#### **Aims of the Research:**

This research looks at the impact of culture on communication behaviour and social identity on Online Social Media.

This study is being conducted in conjunction with an Experiment to investigate how members in a social media environment can get primed due to environment factors around them which can have an impact on their cultural and social identity. The data collected will be analysed using statistical methods. We expect to find that priming will have an impact on culture and communication behaviour. Thank you for taking part in the study. If you want to know more about this research, have any questions or suggestions or simply want to find out the progress later please don't hesitate to contact either me or my Director of Studies.

Further, if you wish to withdraw your data from this study, please contact me within 14 days of the study quoting your unique identifier.

#### **If you have queries please contact:**

Moon Moon Halder (PhD Researcher)  
Email: [Moon.Halder2007@my.ntu.ac.uk](mailto:Moon.Halder2007@my.ntu.ac.uk)

Director of studies: Dr. Jens Binder  
Email: [Jens.Binder@ntu.ac.uk](mailto:Jens.Binder@ntu.ac.uk)

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## **Appendix 3**

### **Study 3: Experiment– collectivism version**

#### **Circulated in India**

##### **Participation Information and Consent**

**Thank you for volunteering to participate in this survey. Before you undertake the survey please read the below information carefully.**

**IMPORTANT – Are you a member of Facebook?**

**Yes – Please read the information below and participate in the study.**

**No – Sorry you will not be able to participate in the study as this study also looks at online activities.**

##### **Aims of the research:**

This research looks at your activities and behaviour based on your interactions with your Facebook and non-Facebook (offline) contacts. This study is being undertaken for PhD research.

##### **What will I be asked to do if I agree to take part?**

All questions in the survey aim to understand your activities and behaviour based on your interactions with your Facebook and non-Facebook (offline) contacts.

After each question you will either be asked to enter your response with a yes/no or a value or choose your best choice from a scale.

The first part is about the number and type of social contacts that you maintain and how you feel about your social networks. In the second part you will be asked to describe how you are making use of Facebook. In addition, there are some questions about your general behaviour in social contexts.

Please read the questions carefully before you respond as once submitted you cannot go back to the previous sections to amend your answers. After you make your choice please rate your response with your best answer. The survey will last approximately 15-20 minutes

##### **After the survey:**



As a thank you for your support you can enter a lottery at the end of the survey. Each participant will have the chance to win voucher for Rs.500 which will be awarded to two lucky winners. The winners will be informed by email.

**Will my data be anonymous?**

Yes, you data will be anonymous. Name requirement is optional. However as this is a study on cultural impact on communication behaviour your ethnicity, gender, age and country of residence, nationality and first language will be required to make accurate inference from the data collected. Apart from this no other personal information of identity will be required for this survey.

Summaries of non-personal data (data that can't be linked to you) such as your responses and demographic information may be retained long-term as part of a larger data set for publication or teaching purposes.

Your data will not be used on its own in isolation; instead your data will be analyzed alongside the data of all other respondents and only general trends and patterns will be reported and your confidentiality and anonymity will be protected at all times.

Participation in the lottery is your decision for which your name and contact details will need to be submitted. This information will be kept separate to the survey information and will only be used for carrying out the lottery.

**Do I have to take part?**

Your participation in the survey will be entirely your choice. There are no foreseen negative consequences of taking part in this research.

You are free to end the survey at any point of your participation. All you need to do is click the exit option. If you want that your data be destroyed, please contact me or my Director of Studies within two weeks of completing the survey.

Important information to consider:

- This study has been ethically approved by the University Research Committee.
- Your responses will be kept anonymous and will be treated as strictly confidential. Responses collated will be stored in a safe place once the survey is closed.
- The responses will be used for research purposes and the statistical analyses will be used in conferences and journal articles.

If you have queries or suggestions please contact:

PhD Researcher: Moon Moon Halder (Email: [moon.halder2007@my.ntu.ac.uk](mailto:moon.halder2007@my.ntu.ac.uk))

Director of studies: Dr. Jens Binder (Email: [Jens.Binder@ntu.ac.uk](mailto:Jens.Binder@ntu.ac.uk))

Nottingham Trent University  
School of Social Sciences  
Burton Street  
Nottingham  
NG1 4BU

**Please add “X” in the box below to confirm your agreement to participate in the study:**

- 1) The study aims and design has been clearly outlined- ☐
- 2) I can withdraw at any point of the study - ☐
- 3) I am aware of what I would be expected to do in the study - ☐
- 4) I am happy to volunteer – ☐

1) Please fill in the boxes:

<b>a) Please enter your Unique Reference Number</b> <i>(this can be used later if you want to refer back at your data)</i>	
---	--

<b>b) Gender</b> <i>(Please place a 'X' under your choice)</i>	Male	Female

<b>c) Age</b>	Please provide your age in years

<b>d) Ethnicity</b>	How would you describe your ethnicity (e.g. White, British, British Asian, Indian, etc.)

<b>e) Work</b>	Employed (full time)	Employed (part time)	Unemployed	Student (full time)	Student (part time)

<b>f) Country of Residence</b>	Please provide the name of the country
--------------------------------	--

<b>g) Nationality</b>	Please provide your Nationality

<b>h) English School Grade</b>	What was your English School Grade in the last term or last year?

**2) In this section please rate the following based on your best choice. Please add an "X" for your response.**

		<b>Disagree strongly</b>	<b>Disagree</b>	<b>Neither agree or disagree</b>	<b>Agree</b>	<b>Agree strongly</b>
a)	I have respect for the authority figures with whom I interact					
b)	I'd rather say "No" directly, than risk being misunderstood					
c)	It is important for me to maintain harmony within my group					
d)	Speaking up is not a problem for me			-		
e)	My happiness depends on the happiness of those around me					
f)	Having a lively imagination is important to me					
g)	I would offer my seat in a bus to my professor					
h)	I am comfortable on being singled out for praise or rewards					
i)	I respect people who are modest about themselves					
j)	I am the same person at home that I am during social gathering					
k)	I will sacrifice my self-interest for the benefit of the group I am in					
l)	Being able to take care of myself is a primary concern to me					
m)	I often have the feeling that my relationships with others are more important than my own accomplishments					
n)	I act the same way no matter who I am with					
o)	I should take into consideration my parents' advice when making education/ career plans					
p)	I feel comfortable using someone's first name soon					

	after I meet them, even when they are much older than I am					
q)	It is important to me to respect decisions made by the group					
r)	I prefer to be direct and forthright when dealing with people I've just met					
s)	I will stay in a group if they need me, even when I am not happy with the group					
t)	I enjoy being unique and different from others in many respects					
u)	If my brother or sister fails, I feel responsible					
v)	My personal identity independent of others, is very important to me					
w)	Even when I strongly disagree with group members, I avoid an argument					
x)	I value being in good health above everything					

**3) Which category of people do you best fit in? Please tick one of the category that best reflects you.**

a) I value individual achievement and strongly believe in my personal goals. My personal achievements and success is of priority for me. I strongly believe in my own efforts. I value independence.

- 1) Not at all
- 2) A little bit
- 3) Not sure
- 4) Quite a lot
- 5) Very much

a) I value the importance of my relationship with others. My goals are achievable/ achieved with the help of and support of others around me. Living a life of harmony with others is of priority for me.

- 1) Not at all
- 2) A little bit
- 3) Not sure
- 4) Quite a lot
- 5) Very much

**4) Please read this passage carefully and provide your truthful response.**

Sostoras, a warrior in ancient Sumer, was largely responsible for the success of Sargon I in conquering all of Mesopotamia. As a result, he was rewarded with a small kingdom of his own to rule.

About 10 years later, Sargon I was conscripting warriors for a war. Sostoras was obligated to send a detachment of soldiers to aid Sargon I. He had to decide who to put in command of the detachment. After thinking about it for a long time, Sostoras eventually decided on Tiglath who was a member of his family.

This appointment had several advantages. Sostoras was able to show his loyalty to his family. He was also able to cement their loyalty to him. In addition, having Tiglath as the commander increased the power and prestige of the family.

Answer the question:

Do you think Sostoras was a good choice? Circle the appropriate answer.

Yes

No

Not sure

**5) As a next task concentrate on the text below. Please circle all pronouns (such as we, us, and our) that appear in it.**

We go to the park. Our excitement fills us when we see the ice-cream van. We allow ourselves to explore every corner of the park, never letting other people distract us. Our voice fills the air and street. We window shop and everywhere we go we see our reflection looking back at us in the glass from the shops we walk past. When we return home, our hearts fill with joy and happiness as we know that we will soon return back in the park. The park belongs to us.

**6) The next task is a short writing exercise.**

**For the next few minutes please read the questions below and answer the following.**

a) List 4 things that you would like to obtain for yourself to improve your everyday life.

i).....

ii).....

iii).....

iv).....

b) List 4 things that you value about yourself as a person.

i).....

ii).....

iii).....

iv).....



a) Please think of what you have in common with your family and friends

b) What is your goal for the next 1 year in relation to your family and friends?

**Well done! You have done a great job, just few more to go.**

7) There are twenty number blanks on the page below. Please write twenty answers to the simple question '**Who am I?**' in the blanks. Just give twenty different answers to this question. Answer as if you were giving the answers to yourself, not to somebody else. Write the answers in order that they occur to you. Don't worry about the logic or 'importance'. Go along fairly fast as time is limited.

- 1) I am .....
- 2) I am .....
- 3) I am .....
- 4) I am .....
- 5) I am .....
- 6) I am .....
- 7) I am .....
- 8) I am .....
- 9) I am .....
- 10) I am .....

8) Please have a think about your Facebook usage and your Facebook social group and rate the following items/ questions truthfully. Please select only one answer to each question. Please tick (✓) or circle one response per question.

**i) Privacy settings:**

a) How confident are you that the information that you upload on Facebook are not misused by others?

- 1 - Not at all
- 2 - A little bit
- 3 - Not sure
- 4 - Quite a lot
- 5 - Very Much

b) How safe do you feel when you are on Facebook?

- 1 - Not at all
- 2 - A little bit
- 3 - Not sure
- 4 - Quite a lot
- 5 - Very Much

c) While on Facebook do you feel you are at a particular risk?

- 1 - Not at all
- 2 - A little bit
- 3 - Not sure
- 4 - Quite a lot
- 5 - Very Much

d) Do you feel that others are at risk because of using Facebook?

- 1 - Not at all
- 2 - A little bit
- 3 - Not sure
- 4 - Quite a lot
- 5 - Very Much

**ii) Self-enhancement**

a) When I use Facebook I feel less constrained. It makes me feel free.

- 1 - Not at all
- 2 - A little bit
- 3 - Not sure
- 4 - Quite a lot
- 5 - Very Much

b) I feel that I am better than my friends on Facebook. Using Facebook gives me a sense of self-worth.

- 1 - Not at all
- 2 - A little bit
- 3 - Not sure
- 4 - Quite a lot
- 5 - Very Much

c) I am loyal to my social community on Facebook. My social community means a lot to me in my daily life.

- 1 - Not at all
- 2 - A little bit
- 3 - Not sure
- 4 - Quite a lot
- 5 - Very Much

d) I believe that having a highly flattering profile is important to me as it attracts people's affection and admiration for me.

- 1 - Not at all
- 2 - A little bit
- 3 - Not sure
- 4 - Quite a lot
- 5 - Very Much

e) I like to be unique on Facebook. Hence I like posting my achievements for sharing it with others.

- 1 - Not at all
- 2 - A little bit
- 3 - Not sure
- 4 - Quite a lot
- 5 - Very Much

f) I am often tolerant to others on Facebook. I don't feel it is necessary to engage in arguments with my social community.

- 1 - Not at all
- 2 - A little bit
- 3 - Not sure

- 4 – Quite a lot
- 5 - Very Much

**iii) Social Support:**

a) How likely would you offer social support to others?

- 1 - Not at all
- 2 – A little bit
- 3 – Not sure
- 4 – Quite a lot
- 5 - Very Much

b) How likely do you feel that you are connected to your Facebook community?

- 1 - Not at all
- 2 – A little bit
- 3 – Not sure
- 4 – Quite a lot
- 5 - Very Much

c) How likely do you feel that members of your social group would help you during a personal crisis?

- 1 - Not at all
- 2 – A little bit
- 3 – Not sure
- 4 – Quite a lot
- 5 - Very Much

d) How likely are you to involve yourself with a social cause on Facebook?

- 1 - Not at all
- 2 – A little bit
- 3 – Not sure
- 4 – Quite a lot
- 5 - Very Much

**iv) Self-identification:**

a) I feel strongly connected with my group members on Facebook

- 1 – Never
- 2 – Seldom
- 3 – Sometimes

- 4 – Often
- 5 – Very Often

b) I often feel held back by my group on Facebook

- 1 – Never
- 2 – Seldom
- 3 – Sometimes
- 4 – Often
- 5 – Very Often

c) My Facebook friends are very important for me.

- 1 – Never
- 2 – Seldom
- 3 – Sometimes
- 4 – Often
- 5 – Very Often

d) I sometimes makes excuses of belonging to my friends group on Facebook

- 1 – Never
- 2 – Seldom
- 3 – Sometimes
- 4 – Often
- 5 – Very Often

**v) Trust:**

a) My Facebook community are trustworthy

- 1 – Never
- 2 – Seldom
- 3 – Sometimes
- 4 – Often
- 5 – Very Often

b) I am confident that my friends on Facebook mostly shares their honest opinions about me

- 1 – Never
- 2 – Seldom
- 3 – Sometimes
- 4 – Often
- 5 – Very Often

c) I trust Facebook for safeguarding my personal information

- 1 – Never
- 2 – Seldom
- 3 – Sometimes
- 4 – Often
- 5 – Very Often

d) My Facebook community does their best to help me whenever I need them.

- 1 – Never
- 2 – Seldom
- 3 – Sometimes
- 4 – Often
- 5 – Very Often

### **9) How likely are you to act in a particular way?**

#### **Scenario 1:**

I log on my Facebook and I receive a friend request from my family member. How likely is that you will accept the friend request?

**Please select only one answer**

- 1) Very un-likely
- 2) Not so likely
- 3) Not sure
- 4) Quite likely
- 5) Very likely

#### **Scenario 2:**

I log on my Facebook and receive a friend request from an unknown person. How likely will you will accept the friend request?

**Please select only one answer**

- 1) Very un-likely
- 2) Not so likely
- 3) Not sure
- 4) Quite likely
- 5) Very likely

#### **Scenario 3:**

While logging on Facebook I am reminded to update my privacy settings. How likely would you update your privacy settings.

**Please select only one answer**

- 1) Very un-likely
- 2) Not so likely
- 3) Not sure
- 4) Quite likely
- 5) Very likely

**Scenario 4:**

While on Facebook I get a request to join a protest for a noble/ social cause. How likely would you join the protest.

**Please select only one answer**

- 1) Very un-likely
- 2) Not so likely
- 3) Not sure
- 4) Quite likely
- 5) Very likely

**Scenario 5:**

While on Facebook when I see my friends talk about their achievements. I would congratulate them.

**Please select only one answer**

- 1) Very un-likely
- 2) Not so likely
- 3) Not sure
- 4) Quite likely
- 5) Very likely

**Scenario 6:**

While on Facebook I often seem to join social groups that has personal relevance to me.

**Please select only one answer**

- 1) Very un-likely
- 2) Not so likely
- 3) Not sure
- 4) Quite likely
- 5) Very likely



10) Please fill out this short questionnaire and provide truthful answers as it will help me to spot areas of improvement in my study.

- 1) Do you think this study put a focus on –  
(Please tick (✓) the correct option)

**a) Social Obligation**

- 1 - Not at all
- 2 - A little bit
- 3 - Somewhat
- 4 - Not sure/ N/A
- 5 - Quite a bit
- 6 - Quite a lot
- 7 - Very Much

**b) Individual decisions**

- 1 - Not at all
- 2 - A little bit
- 3 - Somewhat
- 4 - Not sure/ N/A
- 5 - Quite a bit
- 6 - Quite a lot
- 7 - Very Much

**c) Reading skills**

- 1 - Not at all
- 2 - A little bit
- 3 - Somewhat
- 4 - Not sure/ N/A
- 5 - Quite a bit
- 6 - Quite a lot
- 7 - Very Much

.....

11) How did you find the instructions? Was it easy to follow or do you think it can be improved?

9) Please provide any suggestions you think could help my study to improve.

You have done it. Thank you for your participation.

If you want to be entered in the lottery draw to have a chance to win a gift voucher worth Rs. 500, please enter your name, contact details and email address below. Two lucky winners will be selected from the lucky draw. Please be assured these details will solely be used for lottery purpose and will be destroyed once the draw has been completed.

**Name:**

**Address:**

**Email address:**

**Contact address:**

Moon MoonHalder (PhD Researcher)

Email: [moon.halder2007@my.ntu.ac.uk](mailto:moon.halder2007@my.ntu.ac.uk)

Director of studies: Dr. Jens Binder

Email: [Jens.Binder@ntu.ac.uk](mailto:Jens.Binder@ntu.ac.uk)

Nottingham Trent University  
School of Social Sciences  
Burton Street  
Nottingham  
NG1 4BU

## **Debrief Form:**

**Thank you for your participation!**

### **Aims of the Research:**

This is a part of a wider project that looks at the impact of culture on communication behaviour and social identity on Online Social Media.

This study investigates how individuals can get primed due to environment factors around them which can have an impact on their cultural and social identity. We expect to find that priming will have an impact on culture and, ultimately, on communication behaviour. Thank you for taking part in the study. If you want to know more about this research, have any questions or suggestions or simply want to find out the progress later please don't hesitate to contact either me or my Director of Studies.

Further, if you wish to withdraw your data from this study, please contact me within 14 days of the study quoting your unique identifier.

If you have queries please contact:

Moon MoonHalder (PhD Researcher)

Email: [Moon.Halder2007@my.ntu.ac.uk](mailto:Moon.Halder2007@my.ntu.ac.uk)

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## **Appendix 4**

### **Study 3: Experiment: Individualism version**

#### **Used in India**

##### **Participation Information and Consent**

**Thank you for volunteering to participate in this survey. Before you undertake the survey please read the below information carefully.**

**IMPORTANT – Are you a member of Facebook?**

**Yes – Please read the information below and participate in the study.**

**No – Sorry you will not be able to participate in the study as this study also looks at online activities.**

##### **Aims of the research:**

This research looks at your activities and behaviour based on your interactions with your Facebook and non-Facebook (offline) contacts. This study is being undertaken for PhD research.

##### **What will I be asked to do if I agree to take part?**

All questions in the survey aim to understand your activities and behaviour based on your interactions with your Facebook and non-Facebook (offline) contacts.

After each question you will either be asked to enter your response with a yes/no or a value or choose your best choice from a scale.

The first part is about the number and type of social contacts that you maintain and how you feel about your social networks. In the second part you will be asked to describe how you are making use of Facebook. In addition, there are some questions about your general behaviour in social contexts.

Please read the questions carefully before you respond as once submitted you cannot go back to the previous sections to amend your answers. After you make your choice please rate your response with your best answer. The survey will last approximately 15-20 minutes

##### **After the survey:**

As a thank you for your support you can enter a lottery at the end of the survey. Each participant will have the chance to win voucher for Rs.500 which will be awarded to two lucky winners. The winners will be informed by email.

### **Will my data be anonymous?**

Yes, you data will be anonymous. Name requirement is optional. However as this is a study on cultural impact on communication behaviour your ethnicity, gender, age and country of residence, nationality and first language will be required to make accurate inference from the data collected. Apart from this no other personal information of identity will be required for this survey.

Summaries of non-personal data (data that can't be linked to you) such as your responses and demographic information may be retained long-term as part of a larger data set for publication or teaching purposes.

Your data will not be used on its own in isolation; instead your data will be analyzed alongside the data of all other respondents and only general trends and patterns will be reported and your confidentiality and anonymity will be protected at all times.

Participation in the lottery is your decision for which your name and contact details will need to be submitted. This information will be kept separate to the survey information and will only be used for carrying out the lottery.

### **Do I have to take part?**

Your participation in the survey will be entirely your choice. There are no foreseen negative consequences of taking part in this research.

You are free to end the survey at any point of your participation. All you need to do is click the exit option. If you want that your data be destroyed please contact me or my Director of Studies within two weeks of completing the survey.

Important information to consider:

- This study has been ethically approved by the University Research Committee.
- Your responses will be kept anonymous and will be treated as strictly confidential. Responses collated will be stored in a safe place once the survey is closed.
- The responses will be used for research purposes and the statistical analyses will be used in conferences and journal articles.

If you have queries or suggestions please contact:

PhD Researcher: Moon Moon Halder (Email: [moon.halder2007@my.ntu.ac.uk](mailto:moon.halder2007@my.ntu.ac.uk))

Director of studies: Dr. Jens Binder (Email: [Jens.Binder@ntu.ac.uk](mailto:Jens.Binder@ntu.ac.uk))

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**Please add “X” in the box below to confirm your agreement to participate in the study:**

**5) The study aims and design has been clearly outlined-** ☐

**6) I can withdraw at any point of the study -** ☐

**7) I am aware of what I would be expected to do in the study -** ☐

**8) I am happy to volunteer –** ☐

2) Please fill in the boxes:

<b>c) Please enter your Unique Reference Number</b> <i>(this can be used later if you want to refer back at your data)</i>	
---	--

<b>d) Gender</b> <i>(Please place a 'X' under your choice)</i>	Male	Female

<b>c) Age</b>	Please provide your age in years

<b>e) Ethnicity</b>	How would you describe your ethnicity (e.g. White, British, British Asian, Indian, etc.)

<b>e) Work</b>	Employed (full time)	Employed (part time)	Unemployed	Student (full time)	Student (part time)

<b>f) Country of Residence</b>	Please provide the name of the country
--------------------------------	--

<b>g) Nationality</b>	Please provide your Nationality

<b>h) English School Grade</b>	What was your English School Grade in the last term or last year?



**2) In this section please rate the following based on your best choice. Please add an "X" for your response.**

		<b>Disagree strongly</b>	<b>Disagree</b>	<b>Neither agree or disagree</b>	<b>Agree</b>	<b>Agree strongly</b>
a)	I have respect for the authority figures with whom I interact					
b)	I'd rather say "No" directly, than risk being misunderstood					
c)	It is important for me to maintain harmony within my group					
d)	Speaking up during a class is not a problem for me			-		
e)	My happiness depends on the happiness of those around me					
f)	Having a lively imagination is important to me					
g)	I would offer my seat in a bus to my professor					
h)	I am comfortable with being singled out for praise or rewards					
i)	I respect people who are modest about themselves					
j)	I am the same person at home that I am during social gathering					
k)	I will sacrifice my self-interest for the benefit of the group I am in					
l)	Being able to take care of myself is a primary concern to me					
m)	I often have the feeling that my relationships with others are more important than my own accomplishments					
n)	I act the same way no matter who I am with					
o)	I should take into consideration my parents' advice when making education/ career plans					
p)	I feel comfortable using someone's first name soon					

	after I meet them, even when they are much older than I am					
q)	It is important to me to respect decisions made by the group					
r)	I prefer to be direct and forthright when dealing with people I've just met					
s)	I will stay in a group if they need me, even when I am not happy with the group					
t)	I enjoy being unique and different from others in many respects					
u)	If my brother or sister fails, I feel responsible					
v)	My personal identity independent of others, is very important to me					
w)	Even when I strongly disagree with group members, I avoid an argument					
x)	I value being in good health above everything					

**4) Which category of people do you best fit in? Please tick one of the category that best reflects you.**

b) I value individual achievement and strongly believe in my personal goals. My personal achievements and success is of priority for me. I strongly believe in my own efforts. I value independence.

- 1) Not at all
- 2) A little bit
- 3) Not sure
- 4) Quite a lot
- 5) Very much

b) I value the importance of my relationship with others. My goals are achievable/ achieved with the help of and support of others around me. Living a life of harmony with others is of priority for me.

- 1) Not at all
- 2) A little bit
- 3) Not sure
- 4) Quite a lot
- 5) Very much

**4) Please read this passage carefully and provide your truthful response.**

Sostoras, a warrior in ancient Sumer, was largely responsible for the success of Sargon 1 in conquering all of Mesopotamia. As a result, he was rewarded with a small kingdom of his own to rule.

About 10 years later, Sargon 1 was conscripting warriors for a war. Sostoras was obligated to send a detachment of soldiers to aid Sargon 1. He had to decide who to put in command of the detachment. After thinking about it for a long time, Sostoras eventually decided on Tiglath who was a talented general.

This appointment had several advantages. Sostoras was able to make an excellent general indebted to him. This would solidify Sostoras's hold on his own dominion. In addition, the very fact of having a general such as Tiglath as his personal representative would greatly increase Sostoras's prestige. Finally, sending his best general would be likely to make Sargon 1 grateful. Consequently, there was the possibility of getting rewarded by Sargon 1.

Answer the question:

Do you admire Sostoras? Circle the appropriate answer.

Yes

No

Not sure

**5) As a next task concentrate on the text below. Please circle all pronouns (such as I, me, and my) that appear in it.**

I go to the park. My excitement fills me when I see the ice-cream van. I allow myself to explore every corner of the park, never letting other people distract me. My voice fills the air and street. I window shop and everywhere I go I see my reflection looking back at me in the glass from the shops I walk past. When I return home, my hearts fills with joy and happiness as I know that I will soon return back in the park. The park belongs to me.

**6) The next task is a short writing exercise.**

**For the next few minutes please read the questions below and answer the following.**

c) List 4 things that you would like to obtain for yourself to improve your everyday life.

i).....

ii).....

iii).....

iv).....

d) List 4 things that you value about yourself as a person.

i).....

ii).....

iii).....

iv).....

e) Please think of what makes you different from your family and friends

f) What is your personal goal for the next 1 year?

**Well done! You have done a great job, just few more to go.**

7) There are twenty number blanks on the page below. Please write twenty answers to the simple question '**Who am I?**' in the blanks. Just give twenty different answers to this question. Answer as if you were giving the answers to yourself, not to somebody else. Write the answers in order that they occur to you. Don't worry about the logic or 'importance'. Go along fairly fast as time is limited.

11)I am .....

12)I am .....

13)I am .....

14)I am .....

15)I am .....

16)I am .....

17)I am .....

18)I am .....

19)I am .....

20)I am .....

8) Please have a think about your Facebook usage and your Facebook social group and rate the following items/ questions truthfully. Please select only one answer to each question. Please tick (✓) or circle one response per question.

**vi) Privacy settings:**

e) How confident are you that the information that you upload on Facebook are not misused by others?

- 1 - Not at all
- 2 - A little bit
- 3 - Not sure
- 4 - Quite a lot
- 5 - Very Much

f) How safe do you feel when you are on Facebook?

- 1 - Not at all
- 2 - A little bit
- 3 - Not sure
- 4 - Quite a lot
- 5 - Very Much

g) While on Facebook do you feel you are at a particular risk?

- 1 - Not at all
- 2 - A little bit
- 3 - Not sure
- 4 - Quite a lot
- 5 - Very Much

h) Do you feel that others are at risk because of using Facebook?

- 1 - Not at all
- 2 - A little bit
- 3 - Not sure
- 4 - Quite a lot
- 5 - Very Much

**vii) Self-enhancement**

g) When I use Facebook I feel less constrained. It makes me feel free.



- 1 - Not at all
- 2 - A little bit
- 3 - Not sure
- 4 - Quite a lot
- 5 - Very Much

h) I feel that I am better than my friends on Facebook. Using Facebook gives me a sense of self-worth.

- 1 - Not at all
- 2 - A little bit
- 3 - Not sure
- 4 - Quite a lot
- 5 - Very Much

i) I am loyal to my social community on Facebook. My social community means a lot to me in my daily life.

- 1 - Not at all
- 2 - A little bit
- 3 - Not sure
- 4 - Quite a lot
- 5 - Very Much

j) I believe that having a highly flattering profile is important to me as it attracts people's affection and admiration for me.

- 1 - Not at all
- 2 - A little bit
- 3 - Not sure
- 4 - Quite a lot
- 5 - Very Much

k) I like to be unique on Facebook. Hence I like posting my achievements for sharing it with others.

- 1 - Not at all
- 2 - A little bit
- 3 - Not sure
- 4 - Quite a lot
- 5 - Very Much

l) I am often tolerant to others on Facebook. I don't feel it is necessary to engage in arguments with my social community.

- 1 - Not at all
- 2 - A little bit
- 3 - Not sure

- 4 – Quite a lot
- 5 - Very Much

**viii) Social Support:**

e) How likely would you offer social support to others?

- 1 - Not at all
- 2 – A little bit
- 3 – Not sure
- 4 – Quite a lot
- 5 - Very Much

f) How likely do you feel that you are connected to your Facebook community?

- 1 - Not at all
- 2 – A little bit
- 3 – Not sure
- 4 – Quite a lot
- 5 - Very Much

g) How likely do you feel that members of your social group would help you during a personal crisis?

- 1 - Not at all
- 2 – A little bit
- 3 – Not sure
- 4 – Quite a lot
- 5 - Very Much

h) How likely are you to involve yourself with a social cause on Facebook?

- 1 - Not at all
- 2 – A little bit
- 3 – Not sure
- 4 – Quite a lot
- 5 - Very Much

**ix) Self-identification:**

e) I feel strongly connected with my group members on Facebook

- 1 – Never
- 2 – Seldom
- 3 – Sometimes

- 4 – Often
- 5 – Very Often

f) I often feel held back by my group on Facebook

- 1 – Never
- 2 – Seldom
- 3 – Sometimes
- 4 – Often
- 5 – Very Often

g) My Facebook friends are very important for me.

- 1 – Never
- 2 – Seldom
- 3 – Sometimes
- 4 – Often
- 5 – Very Often

h) I sometimes makes excuses of belonging to my friends group on Facebook

- 1 – Never
- 2 – Seldom
- 3 – Sometimes
- 4 – Often
- 5 – Very Often

**x) Trust:**

e) My Facebook community are trustworthy

- 1 – Never
- 2 – Seldom
- 3 – Sometimes
- 4 – Often
- 5 – Very Often

f) I am confident that my friends on Facebook mostly shares their honest opinions about me

- 1 – Never
- 2 – Seldom
- 3 – Sometimes
- 4 – Often
- 5 – Very Often

g) I trust Facebook for safeguarding my personal information

- 1 – Never
- 2 – Seldom
- 3 – Sometimes
- 4 – Often
- 5 – Very Often

h) My Facebook community does their best to help me whenever I need them.

- 1 – Never
- 2 – Seldom
- 3 – Sometimes
- 4 – Often
- 5 – Very Often

### **9) How likely are you to act in a particular way?**

#### **Scenario 1:**

I log on my Facebook and I receive a friend request from my family member. How likely is that you will accept the friend request?

**Please select only one answer**

- 6) Very un-likely
- 7) Not so likely
- 8) Not sure
- 9) Quite likely
- 10) Very likely

#### **Scenario 2:**

I log on my Facebook and receive a friend request from an unknown person. How likely will you accept the friend request?

**Please select only one answer**

- 6) Very un-likely
- 7) Not so likely
- 8) Not sure
- 9) Quite likely
- 10) Very likely

#### **Scenario 3:**

While logging on Facebook I am reminded to update my privacy settings. How likely would you update your privacy settings.

**Please select only one answer**

- 6) Very un-likely
- 7) Not so likely
- 8) Not sure
- 9) Quite likely
- 10) Very likely

**Scenario 4:**

While on Facebook I get a request to join a protest for a noble/ social cause. How likely would you join the protest.

**Please select only one answer**

- 6) Very un-likely
- 7) Not so likely
- 8) Not sure
- 9) Quite likely
- 10) Very likely

**Scenario 5:**

While on Facebook when I see my friends talk about their achievements. I would congratulate them.

**Please select only one answer**

- 6) Very un-likely
- 7) Not so likely
- 8) Not sure
- 9) Quite likely
- 10) Very likely

**Scenario 6:**

While on Facebook I often seem to join social groups that has personal relevance to me.

**Please select only one answer**

- 6) Very un-likely
- 7) Not so likely
- 8) Not sure
- 9) Quite likely
- 10) Very likely

10) Please fill out this short questionnaire and provide truthful answers as it will help me to spot areas of improvement in my study.

- 2) Do you think this study put a focus on –  
(Please tick (✓) the correct option)

**d) Social Obligation**

- 1 - Not at all
- 2 - A little bit
- 3 - Somewhat
- 4 - Not sure/ N/A
- 5 - Quite a bit
- 6 - Quite a lot
- 7 - Very Much

**e) Individual decisions**

- 1 - Not at all
- 2 - A little bit
- 3 - Somewhat
- 4 - Not sure/ N/A
- 5 - Quite a bit
- 6 - Quite a lot
- 7 - Very Much

**f) Reading skills**

- 1 - Not at all
- 2 - A little bit
- 3 - Somewhat
- 4 - Not sure/ N/A
- 5 - Quite a bit
- 6 - Quite a lot

7 - Very Much

.....

11) How did you find the instructions? Was it easy to follow or do you think it can be improved?

9) Please provide any suggestions you think could help my study to improve.

You have done it. Thank you for your participation.

If you want to be entered in the lottery draw to have a chance to win a gift voucher worth Rs. 500, please enter your name, contact details and email address below. Two lucky winners will be selected from the lucky draw. Please be assured these details will solely be used for lottery purpose and will be destroyed once the draw has been completed.

**Name:**

**Address:**

**Email address:**

If you have any comments, complaints or suggestions, use the text box or contact the address given below.

**Contact address:**

Moon MoonHalder (PhD Researcher)

Email: [moon.halder2007@my.ntu.ac.uk](mailto:moon.halder2007@my.ntu.ac.uk)

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### **Debrief Form: Survey**

**Thank you for your participation!**

#### **Aims of the Research:**

This research looks at the impact of culture on communication behaviour and social identity on Online Social Media.

This study is being conducted in conjunction with an Experiment to investigate how members in a social media environment can get primed due to environment factors around them which can have an impact on their cultural and social identity. The data collected will be analysed using statistical methods. We expect to find that priming will have an impact on culture and communication behaviour. Thank you for taking part in the study. If you want to know more about this research, have any questions or suggestions or simply want to find out the progress later please don't hesitate to contact either me or my Director of Studies.

Further, if you wish to withdraw your data from this study, please contact me within 14 days of the study quoting your unique identifier.

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## **Appendix 5**

### **Study 4: Individualism version**

#### **Used in Indonesia**

##### **1. Communication Strategies and Facebook Use in Indonesia**

**Thank you for volunteering to participate in this survey.**

**Before you undertake the survey please read the below information carefully.**

**IMPORTANT -- Are you a member of Facebook?**

**If Yes -- Please read the information carefully and continue with the survey.**

**If No -- Sorry you will not be able to participate in the study as this study also looks at on line activities on Facebook.**

## **Participation Information and Consent**

Thank you for volunteering to participate in this online survey. Before you undertake the survey please read the below information carefully.

### **Aims of the research:**

This research looks at your activities and behaviour based on your interactions with your Facebook and non-Facebook (offline) contacts. This study is being undertaken for PhD research.

### **What will I be asked to do if I agree to take part?**

All questions in the survey aim to understand your activities and behaviour based on your interactions with your Facebook and non-Facebook (offline) contacts.

After each question you will either be asked to enter your response with a yes/no or a value or choose your best choice from a scale.

The first part is about the number and type of social contacts that you maintain and how you feel about your social networks. In the second part you will be asked to describe how you are making use of Facebook. In addition, there are some questions about your general behaviour in social contexts.

Please read the questions carefully before you respond as once submitted you cannot go back to the previous sections to amend your answers. After you make your choice please rate your response with your best answer. The survey will last approximately 20 - 30 minutes.

### **Will my data be anonymous?**

Yes, your data will be anonymous. Name requirement is optional. However as this is a study on cultural impact on communication behaviour your ethnicity, gender, age and country of residence, nationality and first language will be required to make accurate inference from the data collected. Apart from this no other personal information of identity will be required for this survey.

Summaries of non-personal data (data that can't be linked to you) such as your responses and demographic information may be retained long-term as part of a larger data set for publication or teaching purposes.

Participation in the lottery is your decision for which your name and contact details will need to be submitted. This information will be kept separate to the survey information and will only be used for carrying out the lottery.

### **Do I have to take part?**

Your participation in the survey will be entirely your choice. You are free to end the survey at any point of your participation. If you want that your data be destroyed please contact me or my Director of Studies within two weeks of completing the survey. My contact information is moon.halder2007@my.ntu.ac.uk or my Director of Studies at [Jens.Binder@ntu.ac.uk](mailto:Jens.Binder@ntu.ac.uk) (see full contact details below).

Important information to consider:

- This study has been ethically approved by the University Research Committee.
- Your responses will be kept anonymous and will be treated as strictly confidential. Responses collated will be stored in a safe place once the survey is closed.
- The responses will be used for research purposes and the statistical analyses will be used in conferences and journal articles.

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NG1 4BU

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## 2) Declaration:

By continuing on the next page you agree that the information provided is enough for you to know about the study and you agree to take part. This is also taken as confirmation that you are 18 or above.

Please confirm by adding a tick (✓) beside each sentence.

5) The study aims and designs has been clearly outlined. ☐

6) I am aware that I can withdraw at any point of the study. ☐

7) I am aware of what I would be expected to do in the study. ☐

8) I am happy to volunteer. ☐

## 2) Demographics:

Please tick (✓) or give an answer where applicable:

- k) Please add a unique code that will be used for you. This can be a combination of any number or letter. This is the code that you can use to contact us in case you have any queries or if you want to withdraw your data.

(e.g., your favourite colour, your favourite letter with any number, etc.)

- l) Gender: Please tick (✓) the your Gender : Male ☐ Female ☐

- m) Age: Please provide your Age in years:

- n) Ethnicity: Please provide your Ethnicity (e.g., Indian, British, etc.)

- o) Work: Please tick the one that is applicable to you.

- ii) Employed (full time) ☐ ii) Employed (part-time) ☐ iii) Unemployed ☐

- iv) Student (full time) ☐ v) Student (part-time) ☐

- p) Country of Residence: Please provide the name of the Country

- q) Nationality: What is your Nationality?

- r) Town/ City this survey is conducted in: Please provide the name of the Town or City

- s) Language: What is your First Language?

- t) What was your last English (subject) School/College/ University grade? (e.g., 40, 45, 65., etc.)

3) In this section please rate the below sentences on your best choice.

		<b>Disagree strongly</b>	<b>Disagree</b>	<b>Neither agree or disagree</b>	<b>Agree</b>	<b>Agree strongly</b>
a)	I have respect for elders with whom I interact					
b)	It is important for me to maintain harmony within my social group					
c)	My happiness depends on the happiness of those around me					
d)	I would offer my seat in a bus to my professor					
e)	I respect people who are humble about themselves					
f)	I will sacrifice my self-interest for the benefit of the social group I am in					
g)	I often have the feeling that my relationships with others are more important than my own accomplishments					
h)	I should take into consideration my parents' advice when making education/ career plans					
i)	It is important to me to respect decisions made by my social group					
j)	I will stay in a group if they need me, even when I am not happy with the group					
k)	If my brother or sister fails, I feel responsible					
l)	Even when I strongly disagree with my social group members, I avoid an argument					

4) In this section please rate the below sentences on your best choice.

		<b>Disagree strongly</b>	<b>Disagree</b>	<b>Neither agree or disagree</b>	<b>Agree</b>	<b>Agree strongly</b>
a)	I'd rather say "No" directly, than risk being misunderstood					
b)	Speaking up is not a problem for me					

c)	Having a lively imagination is important to me					
d)	I am comfortable on being singled out for praise or rewards					
e)	I am the same person at home that I am during social gathering					
f)	Being able to take care of myself is a primary concern to me					
g)	I act the same way no matter who I am with					
h)	I feel comfortable using someone's first name soon after I meet them, even when they are much older than I am					
i)	I prefer to be direct and forthright when dealing with people I've just met					
j)	I enjoy being unique and different from others in many respects					
k)	My personal identity is very important to me					
l)	I value being in good health above everything					

5) Now please read the traits on the left and rate the 14 traits to the extent to which each trait is important to you "personally":

<b>Attributes</b>	<b>Very unimportant</b>	<b>Moderately unimportant</b>	<b>Slightly unimportant</b>	<b>Slightly important</b>	<b>Moderately important</b>	<b>Very important</b>
a) Respectful						
b) Independent						
c) Compliant						
d) Separate						
e) Tolerant						
f) Unconstrained						
g) Compromising						
h) Free						
i) Loyal						
j) Leader						
k) Self-sacrificing						
l) Unique						
m) Modest						

n) Original						
-------------	--	--	--	--	--	--

**6) Which category of people do you best fit in? Please tick your best choice.**

a) I value individual achievement and strongly believe in my personal goals. My personal achievements and success is of priority to me. I strongly believe in my own efforts. I value independence.

Please select one of the options from below:

- 1) Not at all
- 2) A little bit
- 3) Not sure
- 4) Quite a lot
- 5) Very much

b) I value the importance of relationship with others. My goals are achievable/achieved with the help and support of others around me. Living a life of harmony with others is of priority to me.

Please select one of the options from below:

- 1) Not at all
- 2) A little bit
- 3) Not sure
- 4) Quite a lot
- 5) Very much



**7) Please read this passage carefully and provide your truthful response.**

Sostoras, a warrior in ancient Sumer, was largely responsible for the success of their king named Gilgamesh in conquering all of Mesopotamia. As a result, he was rewarded with a small kingdom of his own to rule.

About 10 years later, Gilgamesh was conscripting warriors for a war. Sostoras was obligated to send a detachment of soldiers to aid Gilgamesh. He had to decide who to put in command of the detachment. After thinking about it for a long time, Sostoras eventually decided on Tiglath who was a talented general.

This appointment had several advantages. Sostoras was able to make an excellent general indebted to him. This would solidify Sostoras's hold on his own dominion. In addition, the very fact of having a general such as Tiglath as his personal representative would greatly increase Sostoras's prestige. Finally, sending his best general would be likely to make Gilgamesh grateful. Consequently, there was the possibility of getting rewarded by Gilgamesh.

Answer the question:

Do you admire Sostoras? Circle the appropriate answer.

Yes

No

Not sure

## Pronoun circling task:

8) As a next task concentrate on the text below. **Please circle all pronouns such as I, me, and my and myself that appear in the passage below and write the total number of pronouns in the box below**

I go to the park. My excitement fills me when I see the ice-cream van. I allow myself to explore every corner of the park, never letting other people distract me. My voice fills the air and street. I window shop and everywhere I go I see my reflection looking back at me in the glass from the shops I walk past. When I return home, my hearts fills with joy and happiness as I know that I will soon return back in the park. The park belongs to me.

The total number of pronouns in the passage were:

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## Writing Task:

**For the next few minutes please read the questions below and answer the following.**

9) List 4 things that you would like to obtain for yourself to improve your everyday life.

i).....

ii).....

iii).....

iv).....

10) List 4 things that you value about yourself as a person.

i).....

ii).....

iii).....

iv).....

11) Please think of what makes you different from your family and friends.

--

12) What is your personal goal for the next 1 year?

--

**Well done! You have done a great job, just few more to go.**

13) There are ten number blanks on the page below. Please write ten answers to the simple question '**Who am I?**' in the blanks. Just give twenty different answers to this question. Answer as if you were giving the answers to yourself, not to somebody else. Write the answers in order that they occur to you. Don't worry about the logic or 'importance'. Go along fairly fast as time is limited.

21)I am .....

22)I am .....

23)I am .....

24)I am .....

25)I am .....

26)I am .....

27)I am .....

28)I am .....

29)I am .....

30)I am .....

14) Now please read the traits again on the left and rate the 14 traits to the extent to which each trait is important to you "personally":

Attributes	Very unimportant	Moderately unimportant	Slightly unimportant	Slightly important	Moderately important	Very important
a) Respectful						
b) Independent						
c) Compliant						
d) Separate						
e) Tolerant						
f) Unconstrained						

g) Compromising						
h) Free						
i) Loyal						
j) Leader						
k) Self-sacrificing						
l) Unique						
m) Modest						
n) Original						

15) Please have a think about your Facebook usage and your Facebook social group and rate the following items/ questions truthfully. Please select only one answer to each question. Please tick (✓) or circle one response per question.

Please read each section and give your best rating:

Please give your best answer	Not at all	A little bit	Not sure	Quite a lot	Very much
<b>a.</b> How confident are you that the information that you upload on Facebook are not misused by others?					
<b>b.</b> How safe do you feel uploading your pictures and personal information on Facebook?					
<b>c.</b> While on Facebook do you feel you are at a particular risk?					
<b>d.</b> Do you feel that others are at risk because of using Facebook?					

16) Please go through the below traits and **rate yourself in comparison to your social contacts on Facebook.**

*Social contacts/ social group refers to your social contacts that you have on your Facebook profile.*

**I rate myself:**

Attributes	Definitely less than my social contacts on Facebook	Somewhat less than my social contacts on Facebook	Slightly less than my social contacts on Facebook	Slightly more than my social contacts on Facebook	Somewhat more than my social contacts on Facebook	Definitely more than my social contacts on Facebook
a) Respectful						
b) Independent						
c) Compliant						
d) Separate						

e) Tolerant						
f) Unconstrained						
g) Compromising						
h) Free						
i) Loyal						
j) Leader						
k) Self-sacrificing						
l) Unique						
m) Modest						
n) Original						

17. This is in **relation to your social contacts on Facebook**. Please give your true ratings.

Social contacts/ social group refers to your contacts that you have on your Facebook profile.

Please give your true rating	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
a. I feel confident when my friends appreciate my achievements on Facebook.					
b. Sharing harmony among my social groups on Facebook is crucial to me.					
c. Sharing my personal photos and information on Facebook gives me a sense of freedom.					
d. I feel valued and appreciated when my friends share their likes and comments on my personal photos and information on Facebook.					
f. My popularity on Facebook depends on the number of friends I have on Facebook.					

18. Now **think about the social support that you receive and give to your social group on Facebook**. Please read the sentences below carefully and give your truthful ratings.

Social contacts/ social group refers to your contacts that you have on your Facebook profile.

Please give your true rating	Extremely unlikely	Unlikely	Neutral	Likely	Extremely likely
a. How likely would you offer social support to others?					
b. How likely would you share your most private worries and fears with someone in your social group on Facebook?					

<b>c.</b> How likely do you feel that members of your social group would help you during a personal crisis?					
<b>d.</b> How likely are you to involve yourself with a social cause on Facebook?					

19. The below sentences **talks about you and your relationships that you share with your social group on Facebook**. Please read the below sentences and give your truthful ratings.

*Social contacts/ social group refers to your contacts that you have on your Facebook profile.*

<b>Please give your true rating</b>	<b>Never</b>	<b>Rarely</b>	<b>Sometimes</b>	<b>Often</b>	<b>Always</b>
<b>a.</b> I feel strongly connected with my social group members on Facebook					
<b>b.</b> I often feel held back by my social group on Facebook					
<b>c.</b> My Facebook friends are very important for me					
<b>d.</b> I sometimes make excuses of belonging to my friends group on Facebook					

20. Now think about **your Facebook contacts and how much you trust them**. Read the sentences below and give your truthful ratings.

*Social contacts/ social group refers to your contacts that you have on your Facebook profile.*

<b>Please give your true rating</b>	<b>Never</b>	<b>Not so often</b>	<b>Sometimes</b>	<b>Often</b>	<b>Very often</b>
<b>a.</b> My Facebook social group members are trustworthy					
<b>b.</b> I am confident that my friends on Facebook mostly share their honest opinions about me					
<b>c.</b> I trust Facebook for safeguarding my personal information					
<b>d.</b> Members of my social group on Facebook does their best to help me whenever I need them					

## Scenarios:

### 21. How likely are you to act in a particular way?

Below are some scenarios that you often come across while using Facebook. Please read the scenarios carefully and give your truthful answers.

*Social contacts/ social group refers to your contacts that you have on your Facebook profile.*

<b>How likely are you to act in a particular way? Please give your truthful answers:</b>	<b>Extremely unlikely</b>	<b>Unlikely</b>	<b>Neutral</b>	<b>Likely</b>	<b>Extremely likely</b>
a. I log on my Facebook and I receive a friend request from my family member. How likely is that you will accept the friend request?					
b. I log on my Facebook and receive a friend request from an unknown person. How likely will you will accept the friend request?					
c. While logging on Facebook I am reminded to update my privacy settings. How likely would you update your privacy settings.					
d. While on Facebook I get a request to join a protest for a noble/ social cause. How likely would you join the protest.					
e. While on Facebook when I see my friends talk about their achievements. I would congratulate them.					
f. While on Facebook I often seem to join social groups that has personal importance to me.					

22. Now think back on the whole survey that you have just completed and give your ratings based on the overall understanding of the surveys questions. Please give your truthful answers as this will help me to spot areas of improvement in my study:

What do you think this study put a focus on?

<b>What do you think this study put a focus on?</b>	<b>Not at all</b>	<b>A little bit</b>	<b>Somewhat</b>	<b>Not sure/ N/A</b>	<b>Quite a bit</b>	<b>Quite a lot</b>	<b>Very much</b>
a. Social Responsibility							
b. Individual decisions							
c. Reading skills							



**23. Did you find the instructions easy to follow?**

Please put a circle or add a tick (✓) to your choice. If you select "No" please give a reason.

i) Yes

ii) Not sure

iii) No

**24. Do you think there is room for development with the study design or the questions in general?**

Please put a circle or adding a tick (✓) to your choice. If you select "Yes" or "Not sure" please give a reason.

i) Yes

ii) Not sure

iii) No

You have done it. Thank you for your participation.

If you have any comments, complaints or suggestions, use the text box or contact the address given below. Please provide your unique id code (optional)

### **Debrief Form: Survey**

**Thank you for your participation!**

#### **Aims of the Research:**

This research looks at the impact of culture on communication behaviour and social identity on Online Social Media.

This study is being conducted in conjunction with an Experiment to investigate how members in a social media environment can get primed due to environment factors around them which can have an impact on their cultural and social identity. The data collected will be analysed using statistical methods. We expect to find that priming will have an impact on culture and communication behaviour. Thank you for taking part in the study. If you want to know more about this research, have any questions or suggestions or simply want to find out the progress later please don't hesitate to contact either me or my Director of Studies.

Further, if you wish to withdraw your data from this study, please contact me within 14 days of the study quoting your unique identifier.

#### **If you have queries please contact:**

Moon Moon Halder (PhD Researcher)  
Email: [Moon.Halder2007@my.ntu.ac.uk](mailto:Moon.Halder2007@my.ntu.ac.uk)

Director of studies: Dr. Jens Binder  
Email: [Jens.Binder@ntu.ac.uk](mailto:Jens.Binder@ntu.ac.uk)

Nottingham Trent University  
School of Social Sciences  
Burton Street  
Nottingham  
NG1 4BU  
UK

## **Appendix 6**

### **Study 4: Collectivism version**

#### **Used in Indonesia**

### **2. Communication Strategies and Facebook Use in Indonesia**

**Thank you for volunteering to participate in this survey.**

**Before you undertake the survey please read the below information carefully.**

**IMPORTANT -- Are you a member of Facebook?**

**If Yes -- Please read the information carefully and continue with the survey.**

**If No -- Sorry you will not be able to participate in the study as this study also looks at on line activities on Facebook.**

## **Participation Information and Consent**

Thank you for volunteering to participate in this online survey. Before you undertake the survey please read the below information carefully.

### **Aims of the research:**

This research looks at your activities and behaviour based on your interactions with your Facebook and non-Facebook (offline) contacts. This study is being undertaken for PhD research.

### **What will I be asked to do if I agree to take part?**

All questions in the survey aim to understand your activities and behaviour based on your interactions with your Facebook and non-Facebook (offline) contacts.

After each question you will either be asked to enter your response with a yes/no or a value or choose your best choice from a scale.

The first part is about the number and type of social contacts that you maintain and how you feel about your social networks. In the second part you will be asked to describe how you are making use of Facebook. In addition, there are some questions about your general behaviour in social contexts.

Please read the questions carefully before you respond as once submitted you cannot go back to the previous sections to amend your answers. After you make your choice please rate your response with your best answer. The survey will last approximately 20 - 30 minutes.

### **Will my data be anonymous?**

Yes, your data will be anonymous. Name requirement is optional. However as this is a study on cultural impact on communication behaviour your ethnicity, gender, age and country of residence, nationality and first language will be required to make accurate inference from the data collected. Apart from this no other personal information of identity will be required for this survey.

Summaries of non-personal data (data that can't be linked to you) such as your responses and demographic information may be retained long-term as part of a larger data set for publication or teaching purposes.

Participation in the lottery is your decision for which your name and contact details will need to be submitted. This information will be kept separate to the survey information and will only be used for carrying out the lottery.

### **Do I have to take part?**

Your participation in the survey will be entirely your choice. You are free to end the survey at any point of your participation. If you want that your data be destroyed please contact me or my Director of Studies within two weeks of completing the survey. My contact information is moon.halder2007@my.ntu.ac.uk or my Director of Studies at [Jens.Binder@ntu.ac.uk](mailto:Jens.Binder@ntu.ac.uk) (see full contact details below).

Important information to consider:

- This study has been ethically approved by the University Research Committee.
- Your responses will be kept anonymous and will be treated as strictly confidential. Responses collated will be stored in a safe place once the survey is closed.
- The responses will be used for research purposes and the statistical analyses will be used in conferences and journal articles.

If you have queries please contact:

Moon Moon Halder (PhD Researcher)

Email: [moon.halder@my.ntu.ac.uk](mailto:moon.halder@my.ntu.ac.uk)

Director of studies: Dr. Jens Binder

Email: [Jens.Binder@ntu.ac.uk](mailto:Jens.Binder@ntu.ac.uk)

Nottingham Trent University  
School of Social Sciences  
Burton Street  
Nottingham  
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### 3) Declaration:

By continuing on the next page you agree that the information provided is enough for you to know about the study and you agree to take part. This is also taken as confirmation that you are 18 or above.

Please confirm by adding a tick (✓) beside each sentence.

9) The study aims and designs has been clearly outlined. ☐

10) I am aware that I can withdraw at any point of the study. ☐

11) I am aware of what I would be expected to do in the study. ☐

12) I am happy to volunt ☐

---

### 2) Demographics:

Please tick (✓) or give an answer where applicable:

- u) Please add a unique code that will be used for you. This can be a combination of any number or letter. This is the code that you can use to contact us in case you have any queries or if you want to withdraw your data.

(e.g., your favourite colour, your favourite letter with any number, etc.)

v) Gender: Please tick (✓) the your Gender : Male ☐

Female

☐☐

w) Age: Please provide your Age in years:

x) Ethnicity: Please provide your Ethnicity (e.g., Indian, British, etc.)

y) Work: Please tick the one that is applicable to you.

iii) Employed (full time)

☐

ii) Employed (part-time)

☐

iii) Unemployed

☐

iv) Student (full time)

☐

v) Student (part-time)

☐

z) Country of Residence: Please provide the name of the Country

aa) Nationality: What is your Nationality?

bb) Town/ City this survey is conducted in: Please provide the name of the Town or City

cc) Language: What is your First Language?

dd) What was your last English (subject) School/College/ University grade? (e.g., 40, 45, 65., etc.)

3) In this section please rate the below sentences on your best choice.

		<b>Disagree strongly</b>	<b>Disagree</b>	<b>Neither agree or disagree</b>	<b>Agree</b>	<b>Agree strongly</b>
a)	I have respect for elders with whom I interact					
b)	It is important for me to maintain harmony within my social group					
c)	My happiness depends on the happiness of those around me					
d)	I would offer my seat in a bus to my professor					
e)	I respect people who are humble about themselves					
f)	I will sacrifice my self-interest for the benefit of the social group I am in					
g)	I often have the feeling that my relationships with others are more important than my own accomplishments					
h)	I should take into consideration my parents' advice when making education/ career plans					
i)	It is important to me to respect decisions made by my social group					
j)	I will stay in a group if they need me, even when I am not happy with the group					
k)	If my brother or sister fails, I feel responsible					
l)	Even when I strongly disagree with my social group members, I avoid an argument					

4) In this section please rate the below sentences on your best choice.

		<b>Disagree strongly</b>	<b>Disagree</b>	<b>Neither agree or disagree</b>	<b>Agree</b>	<b>Agree strongly</b>
a)	I'd rather say "No" directly, than risk being misunderstood					



b)	Speaking up is not a problem for me					
c)	Having a lively imagination is important to me					
d)	I am comfortable on being singled out for praise or rewards					
e)	I am the same person at home that I am during social gathering					
f)	Being able to take care of myself is a primary concern to me					
g)	I act the same way no matter who I am with					
h)	I feel comfortable using someone's first name soon after I meet them, even when they are much older than I am					
i)	I prefer to be direct and forthright when dealing with people I've just met					
j)	I enjoy being unique and different from others in many respects					
k)	My personal identity is very important to me					
l)	I value being in good health above everything					

5) Now please read the traits on the left and rate the 14 traits to the extent to which each trait is important to you "personally":

<b>Attributes</b>	<b>Very unimportant</b>	<b>Moderately unimportant</b>	<b>Slightly unimportant</b>	<b>Slightly important</b>	<b>Moderately important</b>	<b>Very important</b>
a) Respectful						
b) Independent						
c) Compliant						
d) Separate						
e) Tolerant						
f) Unconstrained						
g) Compromising						
h) Free						
i) Loyal						
j) Leader						
k) Self-sacrificing						

l) Unique						
m) Modest						
n) Original						

**6) Which category of people do you best fit in? Please tick your best choice.**

a) I value individual achievement and strongly believe in my personal goals. My personal achievements and success is of priority to me. I strongly believe in my own efforts. I value independence.

Please select one of the options from below:

- 1) Not at all
- 2) A little bit
- 3) Not sure
- 4) Quite a lot
- 5) Very much

b) I value the importance of relationship with others. My goals are achievable/ achieved with the help and support of others around me. Living a life of harmony with others is of priority to me.

Please select one of the options from below:

- 1) Not at all
- 2) A little bit
- 3) Not sure
- 4) Quite a lot
- 5) Very much

**7) Please read this passage carefully and provide your truthful response.**

Sostoras, a warrior in ancient Sumer, was largely responsible for the success of their king named Gilgamesh in conquering all of Mesopotamia. As a result, he was rewarded with a small kingdom of his own to rule.

About 10 years later, Gilgamesh was conscripting warriors for a war. Sostoras was obligated to send a detachment of soldiers to aid Gilgamesh. He had to decide who to put in command of the detachment. After thinking about it for a long time, Sostoras eventually decided on Tiglath who was a member of his family.

This appointment had several advantages. Sostoras was able to show his loyalty towards his family. He was also able to cement his loyalty to him. In addition, having Tiglath as a commander increased the power and prestige of his family.

Answer the question:

Do you admire Sostoras? Circle the appropriate answer.

Yes

No

Not sure

## Pronoun circling task:

8) As a next task concentrate on the text below. **Please circle all pronouns such as I, me, and my and myself that appear in the passage below and write the total number of pronouns in the box below**

We go to the park. Our excitement fills us when we see the ice-cream van. We allow ourselves to explore every corner of the park, never letting other people distract us. Our voice fills the air and street. We window shop and everywhere we go we see our reflections looking back at us in the glass from the shops we walk past. When we return home, our hearts fills with joy and happiness as we know that we will soon return back in the park. The park belongs to us.

The total number of pronouns in the passage were:

---

## Writing Task:

**For the next few minutes please read the questions below and answer the following.**

9) List 4 things that you would like to obtain for yourself to improve your everyday life.

i).....

ii).....

iii).....

iv).....

10) List 4 things that you value about yourself as a person.

i).....

ii).....

iii).....

iv).....

11) Please think of what makes you different from your family and friends.

--

12) What is your personal goal for the next 1 year?

--

**Well done! You have done a great job, just few more to go.**

13) There are ten number blanks on the page below. Please write ten answers to the simple question '**Who am I?**' in the blanks. Just give twenty different answers to this question. Answer as if you were giving the answers to yourself, not to somebody else. Write the answers in order that they occur to you. Don't worry about the logic or 'importance'. Go along fairly fast as time is limited.

31)I am .....

32)I am .....

33)I am .....

34)I am .....

35)I am .....

36)I am .....

37)I am .....

38)I am .....

39)I am .....

40)I am .....

14) Now please read the traits again on the left and rate the 14 traits to the extent to which each trait is important to you "personally":

Attributes	Very unimportant	Moderately unimportant	Slightly unimportant	Slightly important	Moderately important	Very important
a) Respectful						
b) Independent						
c) Compliant						
d) Separate						
e) Tolerant						
f) Unconstrained						

g) Compromising						
h) Free						
i) Loyal						
j) Leader						
k) Self-sacrificing						
l) Unique						
m) Modest						
n) Original						

15) Please have a think about your Facebook usage and your Facebook social group and rate the following items/ questions truthfully. Please select only one answer to each question. Please tick (✓) or circle one response per question.

Please read each section and give your best rating:

Please give your best answer	Not at all	A little bit	Not sure	Quite a lot	Very much
<b>a.</b> How confident are you that the information that you upload on Facebook are not misused by others?					
<b>b.</b> How safe do you feel uploading your pictures and personal information on Facebook?					
<b>c.</b> While on Facebook do you feel you are at a particular risk?					
<b>d.</b> Do you feel that others are at risk because of using Facebook?					

16) Please go through the below traits and **rate yourself in comparison to your social contacts on Facebook.**

*Social contacts/ social group refers to your social contacts that you have on your Facebook profile.*

**I rate myself:**

Attributes	Definitely less than my social contacts on Facebook	Somewhat less than my social contacts on Facebook	Slightly less than my social contacts on Facebook	Slightly more than my social contacts on Facebook	Somewhat more than my social contacts on Facebook	Definitely more than my social contacts on Facebook
a) Respectful						
b) Independent						
c) Compliant						
d) Separate						

e) Tolerant						
f) Unconstrained						
g) Compromising						
h) Free						
i) Loyal						
j) Leader						
k) Self-sacrificing						
l) Unique						
m) Modest						
n) Original						

17. This is in **relation to your social contacts on Facebook**. Please give your true ratings.

Social contacts/ social group refers to your contacts that you have on your Facebook profile.

Please give your true rating	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
a. I feel confident when my friends appreciate my achievements on Facebook.					
b. Sharing harmony among my social groups on Facebook is crucial to me.					
c. Sharing my personal photos and information on Facebook gives me a sense of freedom.					
d. I feel valued and appreciated when my friends share their likes and comments on my personal photos and information on Facebook.					
f. My popularity on Facebook depends on the number of friends I have on Facebook.					

18. Now **think about the social support that you receive and give to your social group on Facebook**. Please read the sentences below carefully and give your truthful ratings.

Social contacts/ social group refers to your contacts that you have on your Facebook profile.

Please give your true rating	Extremely unlikely	Unlikely	Neutral	Likely	Extremely likely
a. How likely would you offer social support to others?					
b. How likely would you share your most private worries and fears with someone in your social group on Facebook?					



<b>c.</b> How likely do you feel that members of your social group would help you during a personal crisis?					
<b>d.</b> How likely are you to involve yourself with a social cause on Facebook?					

19. The below sentences **talks about you and your relationships that you share with your social group on Facebook**. Please read the below sentences and give your truthful ratings.

*Social contacts/ social group refers to your contacts that you have on your Facebook profile.*

<b>Please give your true rating</b>	<b>Never</b>	<b>Rarely</b>	<b>Sometimes</b>	<b>Often</b>	<b>Always</b>
<b>a.</b> I feel strongly connected with my social group members on Facebook					
<b>b.</b> I often feel held back by my social group on Facebook					
<b>c.</b> My Facebook friends are very important for me					
<b>d.</b> I sometimes make excuses of belonging to my friends group on Facebook					

20. Now think about **your Facebook contacts and how much you trust them**. Read the sentences below and give your truthful ratings.

*Social contacts/ social group refers to your contacts that you have on your Facebook profile.*

<b>Please give your true rating</b>	<b>Never</b>	<b>Not so often</b>	<b>Sometimes</b>	<b>Often</b>	<b>Very often</b>
<b>a.</b> My Facebook social group members are trustworthy					
<b>b.</b> I am confident that my friends on Facebook mostly share their honest opinions about me					
<b>c.</b> I trust Facebook for safeguarding my personal information					
<b>d.</b> Members of my social group on Facebook does their best to help me whenever I need them					

## Scenarios:

### 21. How likely are you to act in a particular way?

Below are some scenarios that you often come across while using Facebook. Please read the scenarios carefully and give your truthful answers.

*Social contacts/ social group refers to your contacts that you have on your Facebook profile.*

<b>How likely are you to act in a particular way? Please give your truthful answers:</b>	<b>Extremely unlikely</b>	<b>Unlikely</b>	<b>Neutral</b>	<b>Likely</b>	<b>Extremely likely</b>
a. I log on my Facebook and I receive a friend request from my family member. How likely is that you will accept the friend request?					
b. I log on my Facebook and receive a friend request from an unknown person. How likely will you will accept the friend request?					
c. While logging on Facebook I am reminded to update my privacy settings. How likely would you update your privacy settings.					
d. While on Facebook I get a request to join a protest for a noble/ social cause. How likely would you join the protest.					
e. While on Facebook when I see my friends talk about their achievements. I would congratulate them.					
f. While on Facebook I often seem to join social groups that has personal importance to me.					

22. Now think back on the whole survey that you have just completed and give your ratings based on the overall understanding of the surveys questions. Please give your truthful answers as this will help me to spot areas of improvement in my study:

What do you think this study put a focus on?

<b>What do you think this study put a focus on?</b>	<b>Not at all</b>	<b>A little bit</b>	<b>Somewhat</b>	<b>Not sure/ N/A</b>	<b>Quite a bit</b>	<b>Quite a lot</b>	<b>Very much</b>
a. Social Responsibility							
b. Individual decisions							
c. Reading skills							

**23. Did you find the instructions easy to follow?**

Please put a circle or add a tick (✓) to your choice. If you select "No" please give a reason.

i) Yes

ii) Not sure

iii) No

**24. Do you think there is room for development with the study design or the questions in general?**

Please put a circle or adding a tick (✓) to your choice. If you select "Yes" or "Not sure" please give a reason.

i) Yes

ii) Not sure

iii) No

You have done it. Thank you for your participation.

If you have any comments, complaints or suggestions, use the text box or contact the address given below. Please provide your unique id code (optional)

### **Debrief Form: Survey**

**Thank you for your participation!**

#### **Aims of the Research:**

This research looks at the impact of culture on communication behaviour and social identity on Online Social Media.

This study is being conducted in conjunction with an Experiment to investigate how members in a social media environment can get primed due to environment factors around them which can have an impact on their cultural and social identity. The data collected will be analysed using statistical methods. We expect to find that priming will have an impact on culture and communication behaviour. Thank you for taking part in the study. If you want to know more about this research, have any questions or suggestions or simply want to find out the progress later please don't hesitate to contact either me or my Director of Studies.

Further, if you wish to withdraw your data from this study, please contact me within 14 days of the study quoting your unique identifier.

#### **If you have queries please contact:**

Moon Moon Halder (PhD Researcher)  
Email: [Moon.Halder2007@my.ntu.ac.uk](mailto:Moon.Halder2007@my.ntu.ac.uk)

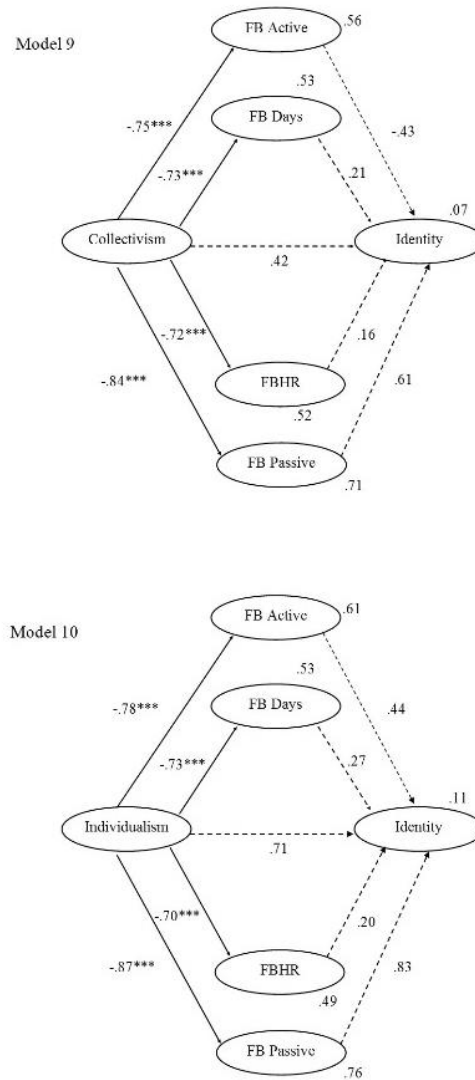
Director of studies: Dr. Jens Binder  
Email: [Jens.Binder@ntu.ac.uk](mailto:Jens.Binder@ntu.ac.uk)

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UK

## Appendix 7

*Figure 5.5*

**Model 9 & 10 Illustrates Standardized Path Coefficients for the four Mediators using the combined models for Online Group Identity for each cultural orientation**

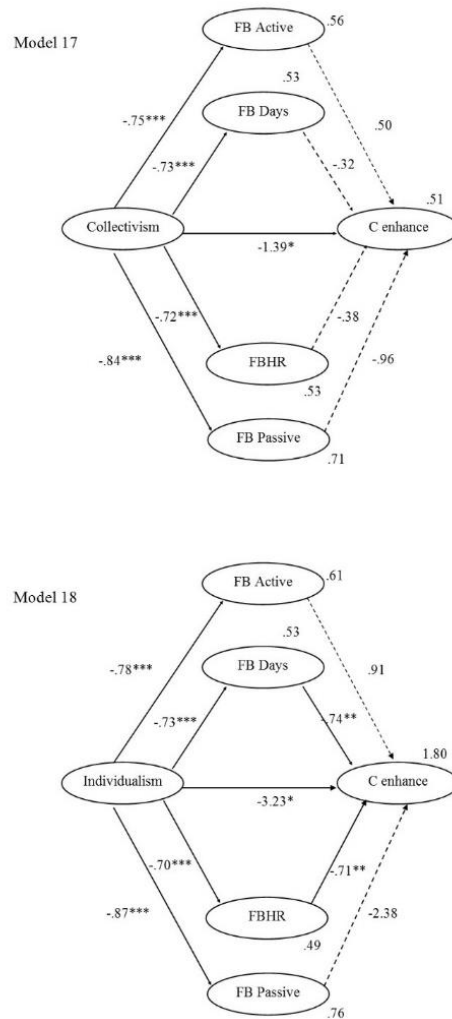


*Note: FB = Facebook; FB Active = active interaction on Facebook; FB Passive = passive interaction on Facebook; FB Days = average number of days' respondents had been on Facebook in the last 14 days and FB HR = average number of time (in minutes) respondents had been on Facebook in the last 14 days*

## Appendix 8

Figure 5.10

**Models 17 & 18 Illustrates Standardized Path Coefficients for the four Mediators using the combined models for each cultural orientation on the Collectivist attributes for Online Self-Enhancement**

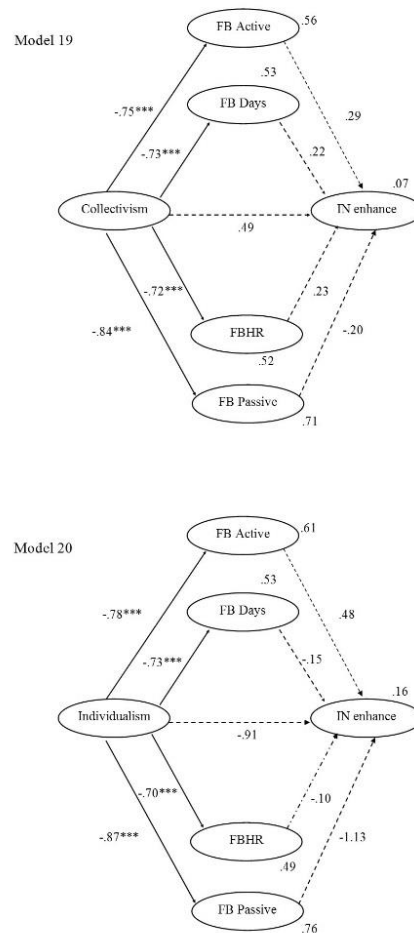


Note: FB = Facebook; FB Active = active interaction on Facebook; FB Passive = passive interaction on Facebook; FB Days = average number of days' respondents had been on Facebook in the last 14 days and FB HR = average number of time (in minutes) respondents had been on Facebook in the last 14 days

## Appendix 9

*Figure 5.11*

**Models 19 & 20 Illustrates Standardized Path Coefficients for the four Mediators using the combined models for each cultural orientation on the Individualist attributes for Online Self-Enhancement**

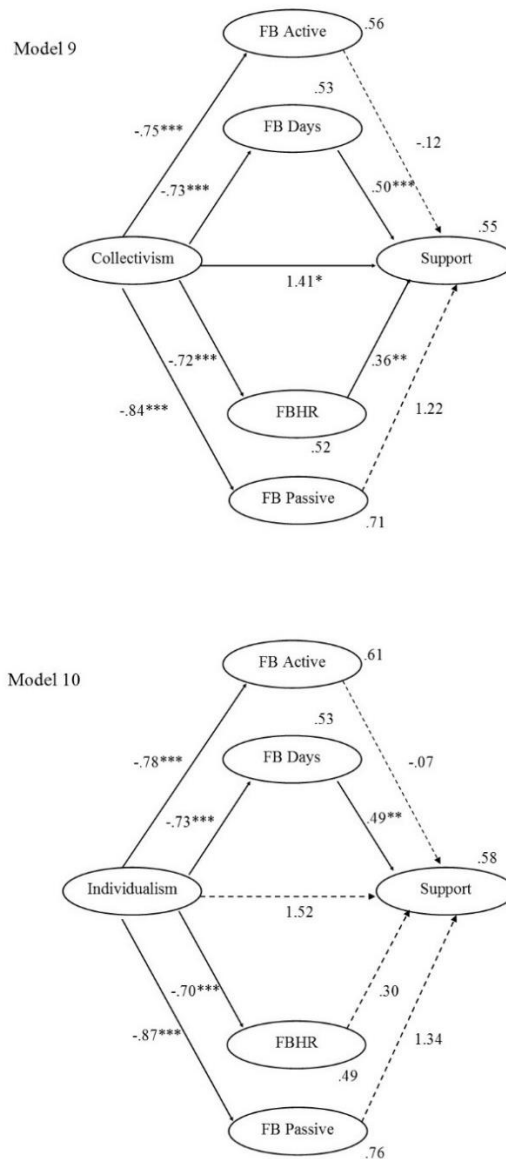


*Note: FB = Facebook; FB Active = active interaction on Facebook; FB Passive = passive interaction on Facebook; FB Days = average number of days' respondents had been on Facebook in the last 14 days and FB HR = average number of time (in minutes) respondents had been on Facebook in the last 14 days*

# Appendix 10

Figure 5.14

Models 9 & 10 Illustrates Standardized Path Coefficients for the four Mediators using the combined models for each cultural orientation on Perceived Online Social Support



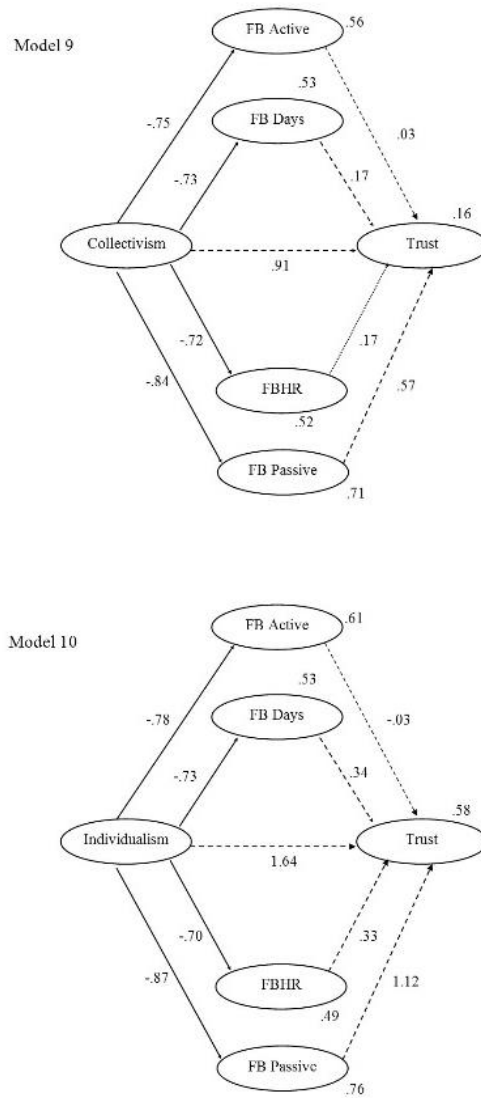
FB = Facebook; FB Active = active interaction on Facebook; FB Passive = passive interaction on Facebook; FB Days = average number of days' respondents had been on Facebook in the last 14 days and FB HR = average number of time (in minutes) respondents had been on Facebook in the last 14 days



# Appendix 11

Figure 5.17

Model 9 & 10 Illustrates Standardized Path Coefficients for the four Mediators using the combined models for Online Trust for each cultural orientation

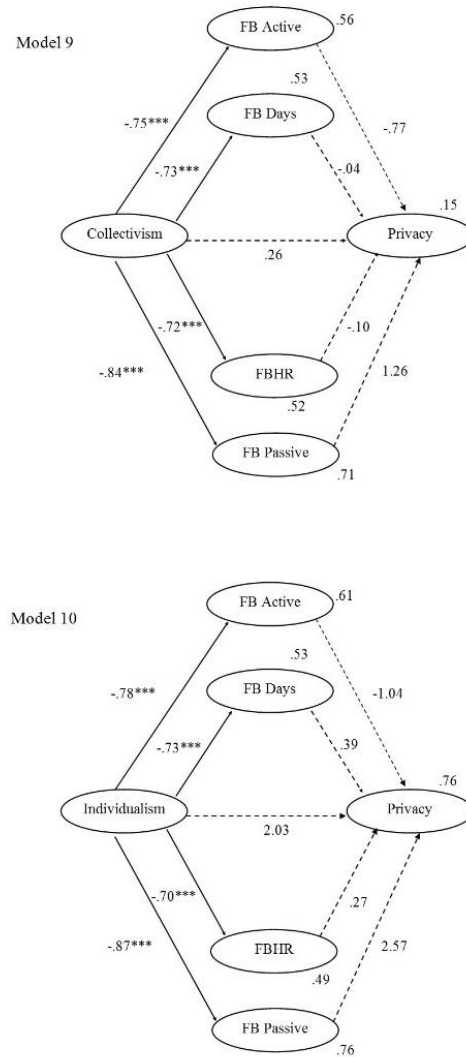


FB = Facebook; FB Active = active interaction on Facebook; FB Passive = passive interaction on Facebook; FB Days = average number of days' respondents had been on Facebook in the last 14 days and FB HR = average number of time (in minutes) respondents had been on Facebook in the last 14 days

## Appendix 12

*Figure 5.19*

**Model 9 & 10 Illustrates Standardized Path Coefficients for the four Mediators using the combined models for Online Privacy Concern for each cultural orientation**



*FB = Facebook; FB Active = active interaction on Facebook; FB Passive = passive interaction on Facebook; FB Days = average number of days' respondents had been on Facebook in the last 14 days and FB HR = average number of time (in minutes) respondents had been on Facebook in the last 14 days*

# Appendix 13

## 13.1. Challenges faced during the Cross-cultural Data Collection

*This section is part of a published journal article (Halder et al., 2016).*

Cross-cultural research helps to study behaviour in different cultures which helps researchers to make valid inferences of their findings. However, the experiences encountered conducting cross-cultural research might not be the same for all. It is believed that by highlighting the experiences encountered during this cross-cultural research would help future researchers could benefit from the recommendations provided as they can adequately prepare themselves in advance. *This section is part of a published journal article (Halder et al., 2016).* The main challenges experienced were in the areas of survey design, translation, data collection, cultural obligation and peer pressure, ethical consideration and awareness, experiences of working with a cross-cultural team and the issues faced as a researcher at a personal level will be discussed below, followed by a discussion on the wider effects of cross-cultural research, its future implications and recommendations and finally a conclusion of this section.

## 13.2. Survey Design

The study was in the form of a survey adapted from previous studies into culture-specific attitudes and behaviours in different social situations (Gardner, Gabriel, & Lee, 1999; Oyserman & Lee, 2008). The scales used in the survey were validated scales, however they had been developed keeping in mind Western theories and had been mostly used on Western samples. Therefore, it was important that item equivalence was maintained in both cultures in order to identify any “true” cultural differences. Such equivalence in instrument design can only be achieved when researchers are mindful of the various idioms, phrases and grammatical detail to be found in a particular location and, more generally, how respondents make inferences in different cultures (Sekaran, 1983). For example, while “Feeling guilty for my brother’s/sister’s failure” was one of the item in the survey. Such feelings might be “strongly relevant” to respondents in Collectivists countries where members believe in being part of their social structure and as such might hold themselves responsible for not being able to guide or support their brother/sister which

could have prevented their failure. However, such feelings might be less agreeable in Individualist countries where members believe in being responsible for their own actions and behaviors. The inferences individuals make are highly influenced by cultural background one come from which influences how we think, perceive and react to situations around us (Cunningham et al., 1995; Dake, 1991; Kühnen & Oyserman, 2002; Oyserman & Lee, 2008). Therefore, it is important to point out that participant responses are influenced by their cultural background they come from and in order to interpret the results correctly, researchers need to have a culturally fit research instrument and they should also possess an understanding of their culture.

### **13.3. Translation**

Due to the cultural variability in the study, it was not possible to use a single instrument that could be consistently used in both cultures (Sechrest et al., 1972; Sekaran, 1983). Therefore, it was decided to administer the survey in the native language of the participants in India and Indonesia which was achieved by back-translation of the survey items. It was however made sure that both the surveys had the same literal meaning (Brislin, 1970; McGorry, 2000). Choosing the most suitable translation method was also important so that it limited any chances of translation errors. Although, there were possibilities of using more than one translation method to achieve a more accurate and culturally fit instrument (McGorry, 2000) however this was not always possible due to restrictions in time and funding. Care was also taken that the participants in both the cultures received the same information (Sekaran, 1983).

### **13.4. Data Collection**

The level of familiarity with the general research process and participation in research studies among the Indian sample was certainly a concern as not all universities in India indulged in similar research activities. This called for developing creative ways to administer the surveys in both cultures so that all participants could fully understand the participation process and their rights. All the students were from Higher Education and had good level of English both written and verbal although it was difficult to find out what their actual level of understanding was. It was observed

that in spite of their familiarity with English language, they still had difficulty in following the overall study participation process. Here, this issue was resolved as the researcher was present in person along with one of the bilingual translators to assist participants while taking the survey. However, in other cases such as online surveys participants' understanding of the survey questions might be restricted and participants might end up responding incorrectly to the questions, i.e., in ways they would not follow with a better understanding of the study. Unintended responses will certainly have an adverse impact on the research outcome and may produce an effect when actually there is none. Global demand and use of the internet has made researchers change and adapt to newer ways of conducting their research. In particular, for cross-cultural research online methods are attractive as they save time and are also cost effective. However, the absence of personal cues and support might also have a negative impact on the quality of the data collected.

Conducting cross-cultural research also required planning ahead. For example, the time of year when the research would be conducted in a country. While particular dates and times might be useful and convenient for the researcher in one country, it might not be the same in another country. The data collection process in the UK was conducted without any hindrances, whereas a different picture emerged in India as national holidays were suddenly called for by the government due to the election as there were social unrest in some parts of the country. As a result, there were only limited numbers of students at the institution during the data collection phase which had a negative impact on the sample size. Therefore, it is suggested that although planning ahead is always useful, researchers should always plan for sudden changes. Planning ahead can include aspects like allocating additional meeting times, checking university opening and closing times and also identifying the most promising time for data collection.

Informal meetings with Indian students after their participation in the survey suggested that although they were anxious about the social situation in the city, they felt that as students they were obligated to participate in the survey as it has been requested by their lecturers. Such loyalty and compromising behaviours are a part of collectivist cultures (Heine & Dehman, 1997; Markus & Kitayama, 1991) and it can be suggested that being loyal to their social group helped participants to self-enhance (Gaertner, Sedikides, & Chang, 2008) rather having a negative experience. However, this raises the question of ethical implications as discussed further down.

### **13.5. Cultural obligation & Peer pressure**

Having analysed the data and looked at the statistical results, further questions had to be addressed. While the survey results followed the expected trend in the UK population, results obtained from the Indian sample had some out of norm results and were not in line with what would be expected in that cultural context. The difference in results could be a product of the impact of globalization which has resulted in the change in attitudes and behaviours of Indian respondents. On the other hand, it could also be assumed that the scales used in the survey, which as mentioned earlier had been originally developed keeping in mind western attitudes and behaviours (Singelis, 1994; Trafimow, Triandis, & Goto, 1991) was not really applicable for collectivist culture like India. It is also important to address that participants (all students at Higher Education institutions) in India showed an obligatory role towards their seniors, such as their lecturers and Deans in the institution, which could also be one of the contributing factors to the results obtained. Participants may have simply responded without actually fully comprehending the meaning of the questions.

Deans and lecturers hold high positions in the social hierarchical system in collectivist countries where teaching roles carry particular authority. Maintaining harmony and loyalty towards others, especially individuals who hold higher social positions, is regarded as an obligatory factor in a collectivist culture (Basabe & Ros, 2005; Markus & Kitayama, 1991). While such collectivist behavior may have helped participants to self-enhance and to improve their self-esteem and subjective well-being (Kurman, 2003; Sedikides, Gaertner, & Toguchi, 2003), it can also be argued that because of such social pressure some of the Indian participants might have taken part in the survey against their wishes. This can have adverse ramification for the survey results as participants might not have given their truthful responses. Additionally, this also fails to maintain ethical standards.

Participants in the Indian institutions were also under constant peer pressure. Informal discussions after the survey indicated that some of the participants took part in the survey to maintain group harmony as it contributed to collective action whether they liked it or not. They believed in following the actions of their group members as they feel obligated to be loyal to their in-group. A group context, e.g., a class room, in combination with peer pressure can also make participants more biased in their responses as they might respond in accordance with group norms

and not their individual opinion. While the participants in the UK were direct and independent in their participation, Indian participants were more indirect in their approach. For example, Indian participants raised questions only when approached by the researcher unlike UK participants who asked questions whenever they wanted to clarify anything during the study. While such differences in behaviour are simply a reflection of cultural backgrounds (Triandis, 1989), they do highlight the importance of the presence of personal cues during data collection.

### **13.6. Ethical Consideration and Awareness**

All research involving human participation calls for maintaining ethical standards and following ethical guidelines. This is even more important in cross-cultural research as identifying and understanding the cultural specific variance in a sample is of utmost importance. Issues like anonymity, participant information and informed consent, information about the data collection process and information of ownership of the data are some of the points that should always be considered. These points also provide a professional context in which participants give information to researchers. Ethical codes and practices that is followed do not always address all ethical issues that researchers might encounter. However, by being aware of the values, norms, perception and behaviours in the target culture such issues can be addressed (Ponterotto & Casas, 1993). It is also important to understand that ethical codes and practices that are developed within western countries cannot fully be followed when conducting research in Eastern countries (Pedersen, 1991). This follows from some fundamental and well-documented differences in cultural norms, values, and behavioural patterns (Hofstede, 1980; Hofstede, Hofstede, & Minkov, 1997). Therefore, having an understanding of how ethical procedures may be received in the cultures under investigation is vital in administering the study and also in the rightful interpretation of the data.

For the present research, ethics and cultural differences had to be considered from early on in the research process. The UK sample included students at UK institutions, who had full access to the internet at all times and were fully aware of issues surrounding data collection and ethical standards. The survey was therefore circulated both online and in paper format to maximize the number of participants. The online survey was distributed through the institution's research

participation site which also made it convenient for both the participants and the researcher. However, not all students at the Indian institutions would have access to the Internet and have a thorough understanding of the ethical guidelines for research. Hence the survey in India was conducted in paper format in both English and Bengali. All participants were made aware, as far as possible, of the ethical guidelines and participant information was provided which included their rights as a research participant before the survey was circulated. Therefore, during the conduct of any cross-cultural research awareness of cultural history, values and traditions are essential which needs to be incorporated in the ethical guidelines for the researchers.

### **13.7. Experience of working as a Cross-Cultural Team**

Having the support, flexibility of the teams in UK and in India were really beneficial as they helped by providing their guidance under any doubtful situation. They not only helped to adapt the research strategy according to various changing situations but also provided guidance throughout the process. While the team in UK was focused in getting the data collection completed on time, the team in India displayed quite a laid back approach. This could have been due to actual cultural differences, or it could have been due to a lack of personal interest given that research outcomes were directly relevant to researchers in the UK, not India.

There was a clearly discernible lack of knowledge of research ethics among Indian students. While the lecturers did possess knowledge about ethical practices that they were required to follow, such information was clearly not passed on to their students. While there was a consensus in both the teams (UK and India) on data protection, there was certainly a difference in their approach to this issue. For example, while anonymization of data and safe storage of data were a given requirement in the UK, the team in India did not seem to be overly concerned about data handling or storage. What was clear from the Indian approach was a need to help and support in the data collection process which certainly were collectivist behaviours considering that maintaining a harmonious relationship is one of the primary goals of the members of collectivist cultures, even if it means sacrificing personal interests (Triandis, 1989). Furthermore, as this research was referred by a personal contact to the Indian team, it is quite likely that offering to help in the data



collection process meant fulfilling a favour and maintaining a harmonious relationship with personal contacts.

### **13.8. Issues faced as a Researcher at a Personal level**

At the initial stage of the research in India there were substantial delays due to failed response from the contacts that was initially established from the UK. Although email exchanges and telephone conversations had taken place before planning the visit to India where access to student participants at several universities was promised, this was not fulfilled after the study started in India. This sudden and unexpected delay had a demotivating psychological impact. However, with the help of other established contacts in India, which had to be planned suddenly helped to liaise with universities and eventually get access to research participants. This sudden delay in my data collection in a different country could have had knock-on effect on my research on the whole. It is therefore advisable that while conducting cross-cultural research, it is important to engage in ongoing communication with not just one but several contacts so that the researcher is not dependent on anyone in particular as there is no guarantee that a particular social contact will work. It is also advisable to have enough time at hand to adapt to unexpected changes in the research plan as otherwise any adverse impact on the overall research cannot be cushioned.

One of the ways to help adapt to changes is to have a positive attitude. For example, in spite of the sudden delay in the data collection and also the social support that received from family, friends and my team in the UK helped motivated to maintain focus in the data collection. While it is not always possible to have the privilege of family and friends during a cross-cultural data collection, it is always helpful to get to know and establish sound relationships with locals in the area as they can be helpful during any unexpected circumstances.

Keeping a reflexive diary of daily activities during the research would also help to formulate plans in advance should you need to. The daily reflexive notes during the data collection had helped not only to keep track of the progress and meet deadlines, but also to figure out daily strategies in advance. For example, on more than one occasion some of the universities failed to get provide access to research participants due to which other contacts were approached during the visit. The reflexive notes helped to decide whether waiting for the response from a particular

university was worthwhile or additional contacts needed to be approached in order to complete the data collection on time. Making use of new opportunities that come up can always be a good idea as it reduces the risk of being dependable on just one contact.

### **13.9. Wider Effects of Cross-Cultural Research**

This particular study included an actual experiment. The survey came in two different versions with the aim of making participants switch between cultural identities. This switch was expected to last at least for the time it took participants to respond to the remainder of the survey. As such, some manipulation of participants was taking place. The survey was considered safe to be used in both cultures as it did not aim to reverse participant behaviour but to highlight different aspects of their existing self-concept to them. No adverse psychological impact on the participants could be expected from the survey. But on a more general level this begs the question whether all research methods are equally appropriate for use in different cultures.

The selection of method in cross-cultural research is very crucial as implications of incorrect methodological procedures can sometimes lead to adverse psychological and social issues for the participants in certain countries. While one method of study might be easy to use and implement in one country, it might not be the same in another country. For example, while a survey response of participants on views on adult images in newspapers might be easy to accept in an individualist country, such topics might not be easily accepted in collectivist countries. Therefore, it is important for the researcher to anticipate the culture-specific impact of the method itself. One solution could be the consultation of country-specific ethical boards before data collection. Obviously this depends on the availability of such boards. A researcher firmly embedded in one particular culture may not always be able to assess the psychological impact of a piece of research on participants in another culture. As researchers we can only be cautious and take measures to eliminate any possibilities of adverse psychological impact on our participants.

### **13.10. Future Implications and Recommendations**

Recognition and adaptability to different cultural norms, values and behaviours is called for at numerous points in the research process. A well planned research strategy and flexible methodological approach should be incorporated in any cross-cultural research. Research instruments require to be appropriately back translated in the native language in order to be viable both culturally and literally which will not only help the participants to be able to comprehend the meaning of the items but will also enable them to respond truthfully and correctly. Failing to get the meaning of the items correct will have an adverse impact on the data collected and as such researchers should be cautious when interpreting such data.

Cultural understanding and familiarity with cultural specific norms and behaviours would help researchers develop contacts more easily and conduct studies in a time-efficient manner. It is also recommended that ethical guidelines should be seen from a cross-cultural perspective and should take into consideration cultural differences while formulating or implementing ethical guidelines and practices. Some ethical guidelines and practices which have been developed for research in western countries may be difficult to incorporate and implement in eastern countries. This calls for developing culturally appropriate guidelines and practices. It is recommended that researchers conduct a pilot study prior to any main study to test their research strategy and their instruments. It is also recommended that participant feedback is collected after the study. This can be a part of the study at the end or researchers can also have informal discussions with the participants in person which will help to identify areas of improvement or amendment.

### **13.11. Summary: Cross-Cultural Challenges**

This section was an attempt to discuss the experiences that had been experienced as a researcher conducting a cross-cultural research. It provided an overview of some of the challenges that researchers can face while conducting cross-cultural research and recommended ways how such challenges could be handled. While it is seen that members from different cultures research ethics differently, having a more flexible ethical approach which encompasses a flexible methodological approach is called for. This certainly requires the identification and appreciation of cultural value, norms and behaviours. Participant feedback is a crucial element of the research design as it will

help in identifying areas of improvements in the study. Future research should focus on highlighting more cross-cultural challenges that researchers could encounter and recommend ways to overcome them. Therefore, keeping all the above points in mind the present research was conducted and the below section outlines an overview of the studies in this thesis.