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The Roles of Brand Trust and Behavioural Trust in Social Networks Online

Three Cross-Cultural Studies

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1. Motivation for Research and Literature Review

Online social networks (OSNs) have gained enormous popularity in recent years and have a considerable impact on the way people communicate and interact with each other (Grabner-Kraeuter & Waiguny, 2011). Conventionally, consumers used the internet to simply expend content: they read it, they watched it and they used it to purchase products, increasingly, however, consumers are utilizing platforms for content sharing and social networking (Kietzmann et al, 2011). Many users have integrated OSNs in their daily practices. While the key technologies of OSNs are consistent, the cultures that emerge around OSNs are varied; many OSNs help to maintain existing real life social networks whereas others help to connect people based on shared interests, religion, sexuality or political views (Boyd & Ellison, 2008). As marketers increasingly incorporate social media as an integral part of the promotional mix (Chu & Kim, 2011), OSN companies such as Facebook have become global powerhouses in advertising: Profit and non-profit organisations primarily use these platforms for target-orientated advertising and large-scale marketing campaigns (Krombholz, Merkl & Weippl, 2012). Although user engagement is a critical factor for OSN companies, academic research on the factors of OSN usage is limited. In an early study Hargittai (2007) found that gender, race, ethnicity and parental education are associated with OSN use for some networks, whereas, Hughes et al (2012) found that personality is related to usage of Facebook and Twitter. However, it is difficult for OSN companies such as Facebook to make advantage of these findings when trying to attract users to join their networks. The following chapters therefore focus on identifying those factors of usage, that help OSN companies to grow a sustainable user base by enhancing user's trust and engaging users to provide, share, read and watch content in OSNs.

Although OSNs have become popular for receiving and disseminating information and connecting like-minded people, the success of such attempts relies on the level of trust that members have with each other as well as with the service provider (Sherchan, Nepal & Paris, 2013). Trust is a social, economic and political binding agent (Rainie & Anderson, 2017) and the relationship of trust and positive brand outcomes has been found in various studies (Chaudhuri & Hoolbrok, 2002; Power, Whelan & Davies, 2008; Koll, 2016; Jevons & Gabbott, 2008). Literature provides a lot on the relationship of trust and usage of OSNs, e.g. Barreda et al (2015) found that in online environments, trust tends to have a positive influence on satisfaction, whereas Wu et al (2014) found that social influence, performance expectancy,

effort expectancy, and facilitating condition, as well as satisfaction, credibility trust, and benevolence trust, are all direct determinants of "user continuance use" of OSNs. Szymczak et al (2016) found that users' trust in Facebook as a medium is predicted to a significant degree on how much they would trust Facebook in the event of a crisis or emergency. Moreover, they found, that the use of Facebook and dispositional trust were also significantly associated with trust toward Facebook in a situation of a crises or emergency. Nevertheless, trust is often lacking in online environments, e.g. Füllbrunn et al (2011) found that trust in anonymous virtual world Second Life is significantly lower than in First Life and Hoffman et al found that consumer often do not trust web providers enough to engage in relationship exchanges with them (Hoffman, Novak & Peralta, 1998). However, we did not find a large-scale empirical study about the relationship of trust and various OSN companies and wanted to address this gap with a large sample. The first research question we had in mind is the following:

(I)_a Are users more likely to share data in OSNs when their level of trust is high, and (I)_b what other factors influence user behaviour in OSNs?

While literature provides some research on factors of OSN usage frequency (Ballings & van de Poel, 2015; Park, Jun & Lee, 2015; Wirtz; Göttel & Daiser, 2017) with various findings, no study was found that examines the relationship between trust and usage intensity in OSNs. Although literature provides various studies on trust, trust research faces many serious challenges: A widely accepted definition of trust is lacking (Li, 2012) and there is no widely accepted measure of trust (McEvily & Tortoriello, 2011). While many trust researchers adopt the definition of trust as a psychological willingness to accept vulnerability (trust-asattitude), a growing number of researchers argue for the definition of trust as a behavioural decision to accept vulnerability (Li, 2007). Two trust constructs are examined for users of OSNs; attitudinal construct Brand Trust and behavioural construct Behavioural Trust. Brand Trust is based on the well-known Brand Trust scale of Chaudhuri and Holbrook (2001) which was adapted to OSNs for a cross-country validation, whereas Behavioural Trust is based on eleven items revealing what sort of data users expose when using OSNs, (e.g. publishing of religion/sexual preferences, publishing of age/gender and publishing of photos/videos). Furthermore, we examine the relationship between Brand Trust and Behavioural Trust as well as the relationship between Brand Trust and Usage Intensity in OSNs. The second research question we had in mind is the following:

 $(II)_a$ Will users use OSNs more intensively if their level of trust is high and $(II)_b$ does an attitudinal measure of trust influence usage intensity more intensively than a behavioural measure of trust?

OSNs such as Facebook, MySpace, Cyworld and Bebo are used widely across the world but none of these OSNs are equally popular across cultures (Vitkauskaite, 2012; Marcus & Krishnamurthi 2009). A simple question illustrates the depth of the problem: How might your favourite OSN be understood in different cultures, assuming, that navigation, mental models, verbal translation or interaction may differ in New York, Beijing, Paris or London (Marcus & Gould, 2000)? Literature provides various research on cultural difference in the use of social media, e.g. Davidson and Martellozzo (2013) found, that young social media users use OSNs the same way, regardless of the social and cultural contexts whereas, Chua and Wellman (2015) explored cultural differences and similarities of East and South East Asian users of OSNs. Jackson and Wang (2013) found differences between OSN usage between college students from individualistic country USA and collectivistic country China. However, many of these studies are biased toward a certain user group, such as students and we did not find a large-scale multi-country study. We address this gap with a notable sample size of N = 5,990 of OSN users from six countries who were recruited via online access panels and are therefore not biased toward a certain age or gender group, stakeholder group (e.g. students) or other interest groups. Many studies on cross-cultural difference impact on various online activities are based on G. Hofstede's 1980 National Culture Dimensions (Vitkauskaite, 2012). Hofstede (2016) defined culture as "the collective programming of the mind that distinguishes the members of one group or category of people from others". In 1980, he published his book "Culture's Consequences: International Differences in Work-Related Values". As the title suggests, this book is devoted to the study of culture at the national level, in which values play a major role. For Hofstede, the dimensions of culture are basic problems to which different national societies have developed different answers over time. Hofstede identified four largely independent dimensions: Power Distance (large versus small), Uncertainty Avoidance (strong versus weak), Individualism versus Collectivism and Masculinity versus Femininity, before later extending his paradigm to six dimensions by adding Long Term Orientation versus Short Term Normative Orientation and Indulgence versus Restraint (Table 28 in appendix). National culture affects the technology acceptance, e.g. the use computers or mobile phones through its impact on some key variables associated with the implementation process (Alarcón-del-Amo, Gómez-Borja & Lorenzo-Romero, 2015; Zhou, Dai & Zhang, 2007; Baron & Hard af Segerstad, 2010; Westlund, 2010; Hemert et al,

2011; Smith, 2011) and previous research approves cultural differences to have an effect on OSNs in particular (Papacharissi, 2011). According to various authors the dimension of Individualism versus Collectivism is supposed to be the most relevant one for studying OSNs (Chau, 2008; Vitkauskaite, 2012; Singh et al 2005). The relative positions of 76 (later 91) countries on these dimensions are expressed in a score on a 0 to 100-point scale; A high dimension score results in a high level of Individualism whereas a low dimension score suggests a low level of Individualism and a high level of Collectivism. Comparing the dimension scores per market we found that Individualism is stronger in Western countries than in Eastern countries. In Anglo-Saxon countries, USA (91) and UK (89) Individualism scores very high, Continental European markets France (71) and Germany (67) hold a medium level of Individualism, whereas low-scoring Eastern Eurasian markets Russia (39) and China (20) can truly be considered as collectivistic countries (Hofstede, 2016). Thus, we have chosen those six countries that reflect culturally diverse markets: highly individualistic countries USA and UK, modest individualistic countries France and Germany and highly collectivistic countries Russia and China (Hofstede, 1980). We have chosen highly populated countries to reflect each score to avoid potential biases toward user basis and diversity of OSN companies in small markets.

Some research suggests that due to the increasing spread of technology and media and the growing cultural permeability, homogeneous groups of consumer segments that transcend country boundaries are turning out to be relevant as target groups (Sheth & Parvatiyar, 2001; Adams, 2011) and this may well be true for OSN, too. Campbell et al (2014) identify five segments of OSN users based on their behaviours and attitudes: Passive, Talkers, Hesitant, Active, and Averse whereas, Chung et al (2015) obtain four distinct segments of consumers who support social ventures (Social Observers, Active Contributors, Social Connectors, and Moderate Contributors) built on three dimensions of social media usage: creating content, connecting with others, and control over the user experience. However, those segmentations are more relevant for consumer brands that operate in OSN and want to connect with consumers and strengthen their consumer-brand relationship or simply want to increase their brand awareness, (e.g. Barreda et al, 2015) whereas, OSN companies must attract large numbers of users in culturally diverse countries to maintain a sustainable business model and must therefore deal with laws and regulations in each country. Hence, the Individualism versus Collectivism Dimension is pertinent to understand cross-cultural differences and was used for our research. Some studies have addressed cultural differences across users of OSNs

in different markets but have focused on one OSN only, e.g. Putzke et al (2014) found differences of Last.FM users in Australia, Finland, Germany and USA. Herring et al (2017) have examined differences in the usage of language in Russia, Portugal, Finland and Japan in LiveJournal. However, several countries have interfered or banned OSNs, e.g. Facebook, Instagram and Twitter are banned in China (Pham & Riley, 2017) and North Korea (Guardian, 2017) and have restricted access for some users in Iran (Ethehad, 2014). To explore differences in OSN usage in culturally diverse markets, we therefore examine the usage of various OSNs: We identify the most frequently used OSN in each country and examine the relationship of trust and usage in culturally diverse countries. The third research question we had in mind was the following:

(III)_a What differences exist in the usage of OSNs across different countries, and (III)_b do these differences moderate the relationship between trust and usage?

In economic terms, trust can be defined as "the belief or perception by one party that the other party to a particular transaction will not cheat (Knack, 2001). Ehrmann et al (2012: 4) state that "trust in public institutions creates a positive payoff in terms of economic efficiency: as citizens have to spend less time and effort protecting themselves from the possible poor functioning of institutions, they can devote more resources to productive activities". Apart from this fact, if seen as trustworthy by citizens, public institutions measure well as a benchmark for trust in comparison for private enterprises in democratic societies: The closer the trust score of a private enterprise is to the trust score of a public institution, the higher the trust level in the private enterprise. However, it is almost impossible to find a public institution which can be used as a benchmark in cross-cultural research. A simple question illustrates the issue: Which public institution would reflect a trustworthy benchmark for citizens around the globe, regardless of their cultural heritage, economic landscape or political regime? Thus, we have chosen respondents' general practitioners (GPs) and the bank they have an account with as benchmarks for trustworthy institutions. The fourth research question we had in mind was the following:

 $⁽IV)_a$ How trustworthy are OSN compared to trustworthy institutions such as banks and healthcare providers, and $(IV)_b$ what differences exist in those trust relationships across different cultures?

Various authors use a broad number of definitions which are related to OSNs (Vitkauskaite, 2012): Richter et al (2009) define Internet Social Networking as all activities by users with regard to extending or maintaining their social network, whereas Kim et al (2010) define Social Web Sites as websites that make it possible for users to form online communities and share user-generated content. Boyd and Ellison (2008: 210) define Social Network Sites as "web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system." The nature and nomenclature of these connections may vary from site to site (Boyd & Ellison, 2008; Vitkauskaite, 2012). This definition will be used for the following three articles as OSNs as the purpose of the articles is not to propose an ultimate definition of OSNs, but to examine user attitudes and behaviours in OSNs across different cultures. The structure of this dissertation is shown in Table 1.

Table 1: Dissertation Structure

Motivation for Research / Literature Review								
	Sample Description							
Chapter 3	Chapter 4	Chapter 5						
Brand Trust and Behavioural Trust in OSNs	Brand Trust and Usage Intensity in OSNs	Brand Trust in OSNs compared to GP and Bank						
 Effect of attitudinal Brand Trust on sharing user data in OSNs Cross-cultural differences on the relationship of Brand Trust and Behavioural Trust 	 Effect of Brand Trust on Usage Intensity in OSNs Effect of Behavioural Trust on Usage Intensity in OSNs Cross-cultural differences on the relationship of Brand Trust and Usage Intensity 	 Exploring cross-cultural differences by comparing Brand Trust in OSNs to; Brand Trust in GPs and Brand Trust in banks 						
Research Limitations								
References								

2. Sample Description

2.1 Questionnaire Design, Programming, Hosting and Data Management

The questionnaire was designed in English and later translated into French, German, Russian and Mandarin from first language translators. Next, the list of OSN companies was adapted for each country after examining the most relevant networks in each country. Then education levels and household net income levels were adjusted for each country after carefully examining suitable break-downs for each variable. In France, seven breakdown levels were used to survey respondents about education compared to six levels in all other countries, hence we found seven breakdowns more representative for the French educational system. The online questionnaire was programmed with the Enterprise Feedback Software (EFS) from Questback and was hosted by Respondi. Some challenges with programming the questionnaire could eventually be solved by the Developer Team of Questback; To avoid lengthy interviews, respondents were asked about the five Brand Trust items for the two most frequently used networks only. However, in the event of a respondent spending an equal amount of time in three or more networks, two out of these networks would have to be randomly selected via a loop-question function in the survey software. We found the EFS Survey software was lacking this feature and sent a query to Questback. Eventually the loopfunction was included by the developer team of Questback. Various versions of SPSS Statistic were used for analysis and data management. For probing of interactions and plotting the MODPROBE macro from Andrew F. Hayes and Jörg Matthes (2009) was implemented into SPSS.

2.2 Sampling and Cleansing

A sample of N=6,216 respondents from the USA, UK, Germany, France, Russia and China were surveyed via online panels in February 2011. German, British, French and Russian respondents were recruited via the Respondi online panel. Respondents from the USA were recruited via the Western Wats online panel (recently bought by Survey Sampling International). Respondents from China were recruited via the AIP online panel. All panels used for the sampling are double-opt-in recruited and are only used for market research purposes. All three online panel companies are owned by market research companies who are

obliged to industry code of conducts, e.g. the European Society for Market Research (ESOMAR), the Market Research Society (MRS) or the Bundesverband für Marktforscher (BVM). Respondents who did not use any OSN were screened out and thus are not part of the sample. Respondents who did not complete the questionnaire were excluded from the sample. Additionally, interviews were excluded if identified as "speeders" from the sample via the Quality Variable of the EFS software, as described in the 2014 Manual on page 569. Hereby the time to complete each page of the questionnaire was calculated. To determine the "quality" of respondents, their processing time is set in relation to the average processing time of the full sample. The relationship can be expressed as a number that is stored in a designated variable. For example, a value of 0.5 signifies that the corresponding user required exactly the average time for processing the questionnaire pages. A value of 0.25 signifies that the respondent needed only half as long as the average processing time. Respondents with a Quality value of < 0.1 were excluded from the sample since they were believed to be speeders. Elimination of interviews with missing data and speeders resulted in an overall sample size of N = 5,990 with the following numbers of completed interviews per country: USA = 1,047, UK = 956, Russian Federation = 1,010, France = 1,063, Germany = 952 and China = 962.

2.3 Socio-Demographics

As can be seen in Table 2, we find a good age distribution across all countries in the sample. USA (21.30 percent) holds the highest percentage of users in the youngest age group 14-19 years old followed by the UK (11.30 percent), China (6.50 percent), Russia (5 percent), France (5.00 percent) and Germany (4.30 percent). In the age group 20-29 years old, China has the highest percentage (27.90 percent) followed by Russia (25.80 percent), UK (16.60 percent), Germany (14.80 percent), France (13.50 percent) and USA (11.20 percent). In the age group 30-39 years old, Russia has by far the highest percentage (36.80 percent), followed by China (23.90 percent), France (20.50 percent), UK (17.7 percent), Germany (14.90 percent) and USA (13.1 percent). France (28.01 percent) holds the highest percentage in the age group 40-49 years old, followed by Germany (27.70 percent), UK (25.90 percent), Russia (21.60 percent), China (21.20 percent) and USA (17.20 percent). In the age group 50-59 years old again France (24.00 percent) holds the highest percentage, followed by Germany (20.70 percent), USA 19.40 percent), UK (17.30 percent), China (16.90 percent) and Russia (9.50

percent). Germany (17.40 percent) holds the highest percentage in the age group 60-69 years old, followed by USA (12.80 percent), UK (11.20 percent), France (8.80 percent), China (3.10 percent) and Russia (1.20 percent). In the oldest age group 70 years or older only USA (5.10 percent) seems to have a decent number of respondents. China (0.4 percent) and Germany (0.10 percent) have a minority of respondents of this age group whereas, UK, France and Russia have zero respondents being 70 years of age or older. It is remarkable that countries which culturally are close have a similar age distribution: Central European countries Germany (18.50 percent) and France (19.10 percent) hold a low percentage of < 30-year olds, Eastern Eurasian countries Russia (10.70 percent) and China (20.40 percent) hold the lowest level of respondents 50 years or older whereas, Anglo-Saxon countries UK and USA have more evenly distributions across all age groups. This may be due to age differences in the country populations.

Table 2: Age Distribution

	USA	UK	FR	DE	RUS	CN
			in 9	%		
14 - 19 years old	21.30	11.30	5.00	4.30	5.00	6.50
20 - 29 years old	11.20	16.60	13.50	14.80	25.80	27.90
30 - 39 years old	13.10	17.70	20.50	14.90	36.80	23.90
40 - 49 years old	17.20	25.90	28.10	27.70	21.60	21.20
50 - 59 years old	19.40	17.30	24.00	20.70	9.50	16.90
60 - 69 years old	12.80	11.20	8.80	17.40	1.20	3.10
70 years or older	5.10	0.00	0.00	0.10	0.00	0.40

Looking at the gender distribution of the sample (Table 3), we find an even spread of males and females across all countries. The UK (51.70 percent) holds the highest level of males, followed by Germany (51.00 percent), France (50.70 percent), China (49.10 percent), USA (45.60 percent) and Russia (45.50 percent). Likewise, Russia (54.50 percent) holds the highest level of females followed by USA (54.40 percent), China (50.90 percent), France (49.30 percent), Germany (49.00 percent) and UK (48.30 percent). It is remarkable, that USA and Russia have more female than male OSN users.

Table 3: Gender Distribution

	USA	UK	FR	DE	RUS	CN
	in %					
Male	45.60	51.70	50.70	51.00	45.50	49.10
Female	54.40	48.30	49.30	49.00	54.50	50.90

Since every country has its own education system it is difficult to compare education across the countries. In USA 4.49 percent of users do not have any qualifications (level 1), 5.73 percent have a secondary modern school certificate/grade 9 (level 2), 12.99 percent have a general certificate of secondary education/grade 10 (level 3), 35.63 percent hold a university entrance qualification (level 4), 40.40 percent hold a university degree (level 5) and not even one percent (0.76 percent) holds a doctorate degree / Ph.D. (level 6). In the UK 8.37 percent do not have any qualifications (level 1), 6.36 percent have a secondary modern school certificate /grade 9 (level 2), 32.22 percent have a general certificate of secondary education/grade 10 (level 3), 17.15 percent have a university entrance qualification (level 4), 34.52 percent hold a university degree (level 5) and 1.36 percent have a doctorate degree / Ph.D. (level 6). In France, no users without any qualification was found in the sample (level 1). 23.10 percent have diplôme supérieur à Bac+2 (level 2), 21.26% have a baccalauréat + 2 ans (level 3), 28.39 percent have a baccalauréat ou brevet professionnel (level 4), 17.70 percent have CAP or BEP (level 5), 5.52 percent have BEPC seul (level 6), 3.33 percent have a aucun diplôme ou CEP (level 7) and less than one percent (0.69) have a diplôme non déclaré (level 8). In Germany 1.05 percent do not hold any qualification (level 1), 27.00 percent hold a Hauptschulabschluß (level 2), 37.50 percent hold a Realschulabschluß (level 3), 15.56 percent have Abitur (level 4), 18.07 percent hold a university degree (level 5) and less than one percent (0.74) hold a doctorate's degree (level 6). In Russia, no user was found with no qualification (level 1) and far less than one percent 0.10) have Nepolnaya srednyaya shkola /9 klassov (level 2). 1.68 percent of users have Real'naya shkola, obshcheye sredneye obrazovaniye /10 klassov (level 3), 16.24 percent have Obshcheye sredneye obrazovaniye / 11 klassov (level 4), 78.22 percent have Vuz, spetsializirovannyy vuz (level 5), and 3.76 percent have Uchenaya stepen' (level 6). In China, far less than one percent (0.10) have no qualification (level 1) and far less than one percent (0.31) have a Xiǎoxué bìyè (level 2). 2.49% have Chūzhōng bìyè (level 3), 19.13 percent have a Gāozhōng bìyè (level 4), 77.13 percent have a Dàxué běnkē/yánjiūshēng bìyè (level 5) and less than one percent (0.83) have a Bóshì bìyè (level 6).

As can be seen in Table 4, countries that culturally are close have a similar distribution of formal education. Russia (81.98 percent) and China (77.96 percent) hold the highest education of OSN users, USA (41.17 percent) and UK (35.88 percent) have the second highest level of education and Germany (18.80 percent) and France (9.54 percent) have the lowest formal education. This may be due to differences between the internet population in Russia and China (Internet Live Stats, 2016). In both countries, the internet population is likely to have a higher formal education (Pousther, 2016).

Table 4¹: Distribution of Education

	USA	UK	FR	DE	RUS	CN	
	in %						
Low	10.22	14.75	44.37	28.05	0.10	0.42	
Medium	48.62	49.37	46.09	53.15	17.92	21.62	
High	41.17	35.88	9.54	18.80	81.98	77.96	

In USA 6.35 percent of respondents have a monthly household net income of 750 US Dollar (HHUSD) or less, 14.22 percent have a HHUSD of 1,500 or less, 14.37 percent have 2,000 HHUSD or less, 18.91 percent have 3,000 HHUSD or less 15.73 percent have 4,000 HHUSD or less, 10.89 percent have 5,000 HHUSD or less and 19.52 percent have more than 5,001 HHUSD. N=386 respondents did not answer this question. In the UK, 10.50 percent have a monthly household net income of 750 Sterling (HHGBP) or less. 24.26 percent have 1,500 HHGBP or less, 16.60 percent have 2,000 HHGBP or less, 18.72 percent have 3,000 HHGBP or less, 13.48 percent have 4,000 HHGBP or less, 5.25 percent have 5,000 HHGBP or less and 11.21 percent have more than 5,001 HHGBP. N=251 respondents did not answer this question. In France 6.23 percent of respondents have a monthly household net income of 750 Euro (HHEUR) or less, 15.04 percent have 1,500 HHEUR or less, 15.89 percent have 2,000 HHEUR or less, 29.10 percent have 3,000 HHEUR or less, 19.07 percent have 4,000 HHEUR or less, 8.92 percent have 5,000 or less and 5.75 percent have more than 5,001 HHEUR. N=245 respondents did not answer this question. In Germany 8.62 percent of respondents have a monthly household net income of 750 Euro (HHEUR) or less, 24.37 percent have 1,500 HHEUR or less, 19.76 percent have 2,000 HHEUR or less, 25.85 percent have 3,000 HHEUR or less, 12.78 percent have 3,000 HHEUR or less, 5.50 percent have 5,000 HHEUR or less and 3.12 percent have more than 5,001 HHEUR. N=279 respondents

¹ Low = level 1 and 2; Medium = level 3 and 4, High = level 5 and 6 and 7 in France

did not answer this question. In Russia, 7.86 percent of respondents have a monthly household net income of 5,000 Russian Roubles (HHRUB) or less, 12.76 percent have 10,000 HHRUB or less, 15.26 percent have 15,000 HHRUB or less, 18.34 percent have 20,000 HHRUB or less, 31.78 percent have 40,000 HHRUB or less, 10.71 percent have 70,0000 HHRUB or less and 3.30 percent have more than 70,001 HHRUB. N=132 respondents did not answer this question. In China 0.75 percent of respondents have a monthly household net income of 750 Chinese Yuan (HHCYN) or less, 2.15 percent have 1,500 HHCYN or less, 7.64 percent have 3,000 HHCYN or less, 16.46 percent have 5,000 HHCYN or less, 36.38 percent have 10,000 HHCYN or less, 26.59 percent have 20,000 HHCYN or less, 10.01 percent have more than 20,001 HHCYN. N=33 respondents did not answer that question.

As can be seen in Table 5, we find a good distribution of household net income across all countries. It is remarkable, that in China the majority (72.98 percent) of respondents have a high or very high income. This may be due to differences between the internet population and the general population in China, which in 2011 was 38.30 percent of the general population (Internet Live Stats, 2016). The Chinese internet population has a higher income than the general population (CNNIC, 2016).

Table 5²: Distribution of Monthly Household Net Income

	USA	UK	FR	DE	RUS	CN		
		in %						
Low	20.57	34.75	21.27	32.99	20.62	2.91		
Middle	33.28	35.32	44.99	45.62	33.60	24.11		
High	26.63	18.72	28.00	18.28	42.48	62.97		
Very high	19.52	11.21	5.75	3.12	3.30	10.01		

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 $^{^{2}}$ Low = up to: \$1,500 (USA); £1,500 (UK); €1,500 (FR and DE), RUB10,000 (RUS); CNY1,500 (CN) Middle = up to: \$3,000 (USA), £3,000 (UK); €3,000 (FR and DE), RUB20,000 (RUS); CNY5,000 (CN) High = up to: \$5,000 (USA); £5,000 (UK); €5,000 (FR and DE); RUB70,000 (RUS); CNY20,000 (CN) Very high = more than: \$5,000 (USA); £5,000 (UK); €5,000 (FR and DE); RUB70,000 (RUS); CNY20,000 (CN)

2.4 Online Social Networks

Respondents were given a list of 18 OSNs to select the ones they are registered with. Additionally, they could leave OSNs they are registered with that were not mentioned on the list in two open fields. The order of the networks was randomized. The networks listed in the questionnaire were the following; USA: Facebook, Classmates, Black Planet, Bolt, Lifeknot, Google Buzz, StayFriends, hi5, MySpace, Badoo, Couch Surfing, Meetin, aka'aki, Kiwibox, Meetup, Friendster, Netlog, LinkedIn. UK: Facebook, Wasabi, Black Planet, Bolt, Friends Reunited, Google Buzz, StayFriends, hi5, MySpace, Badoo, Couch Surfing, Ibibo, aka'aki, Kiwibox, Meetup, Friendster, Netlog, LinkedIn. France: Facebook, Wasabi, Copains d'avant, Trombi, Skyrock, Classmates, StayFriends, hi5, MySpace, Badoo, Couch Surfing, Viadeo, aka'aki, Kiwibox, Meetup, Friendster, Netlog, LinkedIn. Germany: Facebook, Wer-kenntwen, meinVZ, Platinnetz, Schueler.CC, Lokalisten.de, StayFriends, hi5, MySpace, StudiVZ, SchülerVZ meineleute.de, aka'aki, Students.de, Feierabend.de, Friendster, Xing, LinkedIn. Russia: Facebook, Bkontakte, Odnoklassniki, mail.ru, Photoworld.ru, Google Buzz, StayFriends, hi5, MySpace, Privet!ru, Couch Surfing, Moikrug, aka'aki, Streamcommunity, Meetup, Friendster, vkrugudruzei.ru, LinkedIn. China: QQ, Kāixīn wăng, Rén rén wăng, Băidù kōngjiān, Xīnlàng wēi bó, Téngxùn wēi bó, Wăngyì bókè, QQ Xiàoyŏu, Fènghuáng lùntán, Dòubàn, Shuǐmù qīnghuá lùntán, Tiānyá shèqū, Shìjì jiāyuán wăng, Xīcí hútòng, Māopū, 51 Wăng, MSN kōngjiān, Liănpŭ.

As can be seen in Table 6, in the USA 93.50 percent of respondents are registered with Facebook, 27.70 percent are registered with MySpace, 17.30 percent are registered with LinkedIn, 13.80 percent are registered with Classmates, 5.40 percent are registered with Google Buzz, 2.50 percent are registered with Meetup, 2.20 percent are registered with hi5, 2.10 percent are registered with Friendster, 1.00 percent are registered with Netlog. Less than one percent of respondents are registered with Badoo, Black Planet, Couch Surfing, Meeting, StayFriends, bolt.com, Kiwibox, Lifeknot, and aka'aki.

Table 6³: Online Social Network Registrations

	USA	%	UK	%	France	%
1	Facebook	93.50	Facebook	84.90	Facebook	79.50
2	MySpace	27.70	Friends Reunited	23.20	Copains d'avant	33.10
3	LinkedIn	17.30	MySpace	16.30	Trombi	19.00
4	Classmates	13.80	LinkedIn	13.00	Viadeo	9.80
5	Google Buzz	5.40	Google Buzz	4.10	MySpace	9.30
6	Meetup	2.50	hi5	3.30	Badoo	8.70
7	hi5	2.20	Badoo	2.20	LinkedIn	7.00
8	Friendster	2.10	Netlog	2.20	Skyrock	6.60
9	Netlog	1.00	Friendster	1.20	Google Buzz	4.80
10	Badoo	0.90	Meetup	0.90	Netlog	4.60
11	Black Planet	0.90	Couch Surfing	0.80	hi5	2.40
12	Couch Surfing	0.80	StayFriends	0.70	Couch Surfing	0.80
13	Meetin	0.60	Ibibo	0.60	aka'aki	0.60
14	StayFriends	0.60	Wasabi	0.40	Meetup	0.30
15	bolt.com	0.50	Black Planet	0.40	StayFriends	0.20
16	Kiwibox	0.50	bolt.com	0.30	Friendster	0.20
17	Lifeknot	0.50	Kiwibox	0.30	Wasabi	0.10
18	aka'aki	0.40	aka'aki	0.20	Kiwibox	0.10
19	Other	14.4	Other	13.0	Other	7.80
			Russia	0/	C1.4	
	Germany	% 57.00	Russia Bkontakte	% 71.70	China	%
1	Facebook	57.80	Odnoklassniki		QQ	83.30
2	StayFriends	36.90		64.00	Xinlang wei bo	60.60
3	wer-kennt-wen	22.30	mail.ru	57.20	Baidu kongjian	56.20
4	XING	14.10	Facebook	47.70	Kaixin wang	51.80
5	meinVZ	13.70	Moikrug	28.50	Ren ren wang	51.40
6	studiVZ	9.20	aka'aki	20.00	Tengxun wei bo	44.70
7	MySpace	7.10	KruguDruzey.ru	14.40	MSN kongijan	39.20
8	Lokalisten.de	5.70	Photoworld.ru	9.60	Tianya shequ	38.30
9	schülerVZ	4.40	MySpace	6.10	QQ Xiaoyou	37.20
10	Feierabend.de	2.00	Steamcommunity.com	5.00	Maopu	23.60
11	LinkedIn	1.50	StayFriends	1.90	Douban	22.80
12	Platinnetz	1.40	LinkedIn	1.70	Wangyi boke	22.10
13	hi5	1.10	Privet!ru	1.60	Shiji jiayuan wang	18.70
14	Schueler.CC	0.80	Friendster	1.60	51 Wang	18.70
15	meineleute.de	0.70	hi5	0.80	Xici hutong	16.50
16	aka'aki	0.30	Google Buzz	0.20	Fenghuang luntan	16.00
17	Friendster	0.10	Couch Surfing	0.20	Shuimu qinghua luntan	6.40
18	Students.de	0.00	Meetup	0.20	Lianpu	4.10
19	Other	10.6	Other	6.00	Other	6.00

In the UK, 84.90 percent of respondents are registered with Facebook, 23.20 percent are registered with Friends Reunited, 16.30 percent are registered with MySpace, 13.0 percent are registered with LinkedIn, 4.10 percent are registered with Google Buzz, 3.30 percent are registered with hi5, 2.20 percent are registered with Badoo, 2.20 percent are registered with Netlog, 1.20 percent are registered with Friendster, less than one percent are registered with Meetup, Couchsurfing, StayFriends, Ibibo, Wasabi, Black Planet, Bolt, Kiwibox and aka'aki.

³ "Other" consist of various OSN names including some that were mentioned on the list. Some include micro-blogging websites e.g. Twitter which were considered irrelevant for this research.

In France, 79.50 percent of respondents are registered with Facebook, 33.19 percent are registered with Copains d'avant, 9.80 percent are registered with Viadeo, 9.30 percent are registered with MySpace, 8.70 percent are registered with Badoo, 7.00 percent are registered with LinkedIn, 6.60 percent are registered with Skyrock, 4.80 percent are registered with Google Buzz, 4.60 percent are registered with Netlog, 2.40 percent are registered with hi5 and less than one percent are registered with Couch Surfing, aka'aki, Meetup, StayFriends, Friendster, Wasabi and Kiwibox. In Germany, 57.80 percent of respondents are registered with Facebook, 36.90 percent are registered with StayFriends, 22.30 percent are registered with Wer-kennt-wen, 14.10 percent are registered with Xing, 13.70 percent are registered with meinVZ, 9.20 percent are registered with studiVZ, 7.10 percent are registered with MySpace, 5.70 percent are registered with Lokalisten.de, 4.40 percent are registered with schülerVZ, 2.00 percent are registered with Feierabend.de, 1.50 percent are registered with LinkedIn, 1.40 percent are registered with Platinnetz, 1.10 percent are registered with hi5 and less than one percent are registered with Schueler.CC, meineleute.de, aka'aki, Friendster, and Students.de. In Russia, 71.70 percent of respondents are registered with Bkontakte, 64.00 percent are registered with Odnoklassniki, 57.20 percent are registered with mail.ru, 47.70 percent are registered with Facebook, 28.50 percent are registered with Moikrug, 20.00 percent are registered with aka'aki, 14.40 percent are registered with KruguDruzey, 9.60 percent are registered with Photoworld.ru, 6.10 percent are registered with MySpace, 5.00 percent are registered with Streamcommunity, 1.90 percent are registered with StayFriends, 1.70 percent are registered with LinkedIn, 1.60 percent are registered with Friendster, and less than one percent are registered with hi5, Google Buzz, Couch Surfing, and Meetup. In China, 83.30 percent of respondents are registered with QQ, 60.60 percent are registered with Xīnlàng wēi bó, 56.20 percent are registered with Kāixīn wăng, 51.40 percent are registered with Rén rén wăng, 44.70 percent are registered with Téngxùn wēi bó, 39.20 percent are registered with MSN kongjian, 38.30 percent are registered with Tianyá shèqu, 37.20 percent are registered with QQ Xiàoyǒu, 23.60 percent are registered with Māopū, 22.80 percent are registered with Dòubàn, 22.10 percent are registered with Wăngyì bókè, 18.70 percent are registered with Shìjì jiāyuán wăng, 18.70 percent are registered with 51 Wăng, 16.50 percent are registered with Xici hutong, 16.00 percent are registered with Fènghuáng lùntán, 6.40 percent are registered with Shuǐmù qīnghuá lùntán and 4.10 percent are registered in Liǎnpǔ.

It is remarkable, that in China registrations per network are high across many networks; 12 networks have user registration rates of more than 20 percent. In Russia, 6

networks have user registration rates of 20 percent or more, whereas in Germany and France only 3 networks have user registration rates of 20 percent or more, followed by UK and USA where only 2 networks have registration rates of 20 percent or more.

3. How Does Brand Trust Affect Behavioural Trust in Online Social Networks across Different National Markets?

3.1. Introduction

Many studies on brand trust conclude that a high level of trust in a brand leads to positive brand outcomes such as brand repurchase, brand satisfaction, brand loyalty and brand commitment. (Lau & Lee, 1999; Delgado-Ballester & Munuera-Alemán, 2000; Wang, 2002; Delgado-Ballester, Munuera-Alemán & Yagüe-Guillén 2003; Ha, 2004; Shang, Chen & Liao, 2006; Chaudhuri & Holbrook, 2001; Chaudhuri & Chatterjee, 2005). However, Saeri, Ogilvie, La Macchia, Smith & Louis (2014) find that there are no unique effects of trust on intention nor of trust on behaviour when predicting Facebook users' online privacy protection. Nevertheless, online social networks (OSNs) invest in trust of their users. Facebook, for example, recently rolled out a large image campaign to increase user trust (Janotta, 2016). We conduct a study to examine the role of trust in OSNs. Since many OSNs such as Facebook and LinkedIn operate in culturally diverse markets we address cultural differences of trust within the user group of OSNs. To measure trust as an attitudinal construct in OSNs we adapt the well-known Brand Trust scale of Chaudhuri and Holbrook to OSNs for a cross-country validation in six test markets: USA, UK, France, Germany, Russia and China. However, while such attitudinal measures of trust can provide important indicators of user behaviour, the attitude-behaviour relationship is not perfect and sometimes can be quite weak (Ajzen & Fishbein, 1980; Bagozzi 1982); Therefore, empirical results obtained from attitudinal measures of trust are not necessarily correlated to user behaviour.

To measure trust as a behavioural variable in OSNs we create a trust scale named Behavioural Trust that is based on the ways users share data in their networks. Behavioural Trust consists of three components dividing shared user data into relevant categories: *Activity Privacy* (publishing religion/political attitude/sexual preferences), *Personal Privacy* (publishing age/gender/relationship status) and *Visual Privacy* (publishing photos/videos).

Using Hofstede's (1980) framework to operationalize culture, we assume one of his five culture dimensions to be especially apt to explain the cross-national variations of user

attitudes and user behaviour. Since Individualism/Collectivism refers to the degree to which people in a country prefer to act as individuals rather than as members of a society, we expect the behavioural intent of OSN users from individualistic markets such as USA and UK to be guided more by Brand Trust than users of collectivistic markets such as Russia or China. Based on the validated Brand Trust scale and the three Behavioural Trust components we provide the first study in which the impact of Brand Trust on Behavioural Trust is examined in OSNs across six national markets. Furthermore, we examine potential moderator effects on the relationship between Brand Trust and Behavioural Trust: Although the number of businesses using social media is growing (Swani et al, 2017), little research is provided on the differences in OSN usage between private users and business users. We therefore examine the role of Private Usage on the relationship between Brand Trust and Behavioural Trust. As competition amongst OSN is becoming intense and resulting in more users using multiple OSN at the same time (Gu et al, 2016) we examine the role of Multi-Homing on the relationship between Brand Trust and Behavioural Trust. Furthermore, the roles of Age and Gender on the relationship between Brand Trust and Behavioural Trust are examined.

3.2. Hypotheses

Brand Trust has a direct positive relationship with brand outcomes (e.g. Chaudhuri & Chatterjee, 2005). Various studies confirm the positive relation between trust and intended behaviour such as purchase intentions in an online context (e.g. Amoroso & Mukahi, 2013; Safari & Thilenius, 2013; Pappas, 2016). Since information given by the users about their opinions and activities is the most valuable resource of OSNs, we regard the Behavioural Trust Dimensions *Activity Privacy*, *Personal Privacy* and *Visual Privacy* as highly relevant brand outcomes. Therefore, we expect the amount of shared data to be positively correlated to the individual's level of brand trust in the specific OSN. We therefore assume a positive correlation between Brand Trust and Behavioural Trust in OSNs;

H1: There is a positive correlation of Brand Trust and Behavioural Trust for users of OSNs;

- a. Brand Trust is positively correlated to Activity Privacy.
- b. Brand Trust is positively correlated to Personal Privacy.
- c. Brand Trust is positively correlated to Visual Privacy.

It is conceivable that user of OSNs from different markets differ depending on cultural traits relating to trust and commitment when using OSNs. "Different people from different backgrounds like different things to different degrees." (Holbrook, Weiss and Habich, 2002). We therefore conducted this study with users from a culturally diverse base; We used Hofstede's cultural dimension "Individualism versus Collectivism" which reflects an important aspect to compare cultural differences of OSN usage. Hofstede (2016) defines Individualism as a preference for a loosely-knit social framework in which individuals are expected to take care of only themselves and their immediate families, whereas Collectivism reflects a preference for a tightly-knit framework in society in which individuals can expect their relatives or members of a particular in-group to look after them in exchange for unquestioning loyalty. A high dimension score implies a high level of Individualism whereas a low dimension score implies a low level of Individualism and a high level of Collectivism. Looking at the dimension scores per market we found that Individualism is becoming stronger going from East to West. In Anglo-Saxon markets USA (91) and UK (89) Individualism scores high, Continental European markets France (71) and Germany (67) hold a medium level of Individualism, whereas low-scoring Eastern Eurasian markets Russia (39) and China (20) can truly be considered as collectivistic markets. Seeing Brand Trust as an attitudinal scale for individuals we expect it to have a stronger effect on Behavioural Trust in individualistic (Western) markets than in collectivistic (Eastern) markets. We therefore propose;

H2: The correlation of Brand Trust and Behavioural Trust in OSNs is stronger in Western markets than in Eastern markets, thus:

- a. the correlation of Brand Trust with Activity Privacy,
- b. the correlation of Brand Trust with Personal Privacy, and
- c. the correlation of Brand Trust with Visual Privacy

in OSNs is stronger in Western markets than in Eastern markets.

Previous research has found that privacy policy in business-to-business (B2B) and business-to-consumer (B2C) e-commerce differ (Vakeel et al, 2017). Therefore, it would be imaginable that Private Usage of OSNs influences the relationship between Brand Trust and Behavioural Trust. However, there is no evidence of trust being more relevant or less relevant for business users than for private users of OSNs. We therefore propose;

H3: For the correlation of Brand Trust and Behavioural Trust in OSNs it is irrelevant if users use OSNs for only private purposes. Thus, Private Usage has no significant effect

- a. for the correlation of Brand Trust with Activity Privacy,
- b. for the correlation of Brand Trust with Personal Privacy, and
- c. for the correlation of Brand Trust with Visual Privacy.

Given the increasingly intense competition for OSNs, ensuring sustainable growth in user base has emerged as a critical issue for OSNs companies (Vakeel et al, 2017). Evidence suggests that when using multiple OSNs users may forget in which OSN they have seen or posted content (Hotchkiss, 2011; PR-Newswire, 2015). Hence, it is conceivable that Multi-Homing (usage of more than one OSN) has a negative effect on the relationship between Brand Trust and Behavioural Trust. We therefore propose;

H4: Multi-Homing has a significant negative effect for the correlation of Brand Trust and Behavioural Trust. Thus; Multi-Homing has a significant negative effect

- a. for the correlation of Brand Trust with Activity Privacy,
- b. for the correlation of Brand Trust with Personal Privacy, and
- c. for the correlation of Brand Trust with Visual Privacy.

3.3 Research Design

Respondents were given a list of 18 OSNs plus two open questions to select/add the networks they are registered with. Respondents who did not use any OSNs were screened out. Respondents were asked about the amount of time they spend per week in the relevant OSNs. This includes the time when respondents were logged onto the networks (6-Likert scale). (1) "1 hour per week or less", (2) "2 hours per week", (3) "3 hours per week", (4) "4 hours per week", (5) "5 hours per week", (6) "6 hours per week or more". The next question was concerned about the level of Brand Trust users have in their OSNs. In a first step, the two most frequently used OSNs were selected. In case respondents spend the same amount of time in three or more OSNs, two of these networks were randomly selected. The five Brand Trust items following Chaudhuri and Holbrook's scale Brand Trust (2001) based on Facebook as an example for the individual selected network, are the following. (1) "I fully and completely trust Facebook", (2) "I have a lot of experience with Facebook", (3) "I am well informed about Facebook", (4) "By comparison with other providers, I know a lot about Facebook", (5) "Facebook is reliable". Each item was rated via a 7-Likert scale (not applicable at all" to "fully applicable". The next question was concerned with how respondents publish data in OSNs via eleven items: (1) Place of residence published; (2) age/birthday published; (3) gender published; (4) relationship status published; (5) religion published; (6) publish personal video recordings, e.g. via links; (7) photos of you uploaded, published, etc.; (8) photos of your family/partner uploaded/published, etc.; (9) photos of acquaintances uploaded, published, etc.; (10) political attitude published; (11) sexual preferences published. Each item was rated via a 11-Likert scale ("1 I never reveal this = 0% "to "11 I always reveal this 100%"). The next question was concerned with private usage and business usage of respondents in OSNs: (1) "I only use social networks privately." (2) "I predominantly use social networks privately." (3) "I use social networks in equal measure, both privately and professionally." (4) "I only use social networks professionally." (5) "I predominantly use social networks professionally." Next, respondents were asked about their gender: (1) "Male." (2) "Female." In the next question, respondents were asked about their age: (1) "19 years or younger." (2) "20-29 years." (3) "30-39 years." (4) "40-49 years." (5) "50-59 years." (6) "60-69 years." (7)" 70 years or older." The next question was concerned with the monthly household net income⁴ of respondents. (1) "Up to \$750" (2) "\$751-\$1,500" (3) "\$1,5001-\$2,000" (4) "\$2,001-\$3,000" (5) "\$3,001-\$4,000) (6) "\$4,001-\$5,000) (7)" \$5,001 or more". The last question was concerned with the formal education of respondents. (1) "No qualification" (2) "Secondary modern school certificate/grade 9" (3) "Secondary school certificate/general certificate of secondary education/grade 10" (4) "University entrance qualification/higher education entrance qualification/grade 12/13" (5) "University degree/ college of higher education degree" (6) "Promotion/Ph.D."⁵

A sample of N = 6,216 respondents from the USA, UK, Germany, France, Russia and China were recruited via online access panels. After elimination of incomplete interviews and "speeders" via the quality variable⁶ of the software we obtained an overall sample of N = 5,990: USA (N = 1,047), UK (N = 956), Russian Federation (N = 1,010), France (N = 1,063), Germany (N = 952) and China (N = 962).

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⁴ For monthly household net income break-downs of other countries see Sample Description

⁵ For educational level break-downs of other countries see Sample Description

⁶ Manual: Enterprise Feedback Suite EFS Survey (p. 569) 10.4/1.0, Date: 15.10.2014

3.4 Results

The most frequently used OSNs per country were identified as the following; USA: Facebook (N = 979), UK: Facebook (N = 812), Germany: Facebook (N = 550), France: Facebook (N = 845), Russia: Bkontakte (N = 724), China: QQ (N = 801). To compare the trust levels, index scores of the Brand Trust items of Facebook, Bkontakte and QQ were built by obtaining the mean of the Brand Trust items. QQ in China proves to have the highest index score of the Brand Trust items ($\bar{X} = 5.38$) followed by Facebook in the UK ($\bar{X} = 4.93$), Bkontakte in Russia ($\bar{X} = 4.87$), Facebook in the US ($\bar{X} = 4.74$), Facebook in France ($\bar{X} = 4.52$) and Facebook in Germany ($\bar{X} = 4.13$). A principal component analysis (PCA) was carried out with the Brand Trust items to validate the construct for OSNs. Results show high factor loadings which range from 0.716 to 0.946 for all items across all test markets. All five items match into one component across all markets and across all OSNs. Values for Bartlett Test, communalities and Cronbach's Alpha all prove to be solid and can be interpreted as good or even very good (Bartlett test: significant at < 0.01 level for all networks; Kaiser-Meyer-Olkin (KMO): values for all networks > 0.7; communalities for all networks > 0.5; Cronbach's Alpha for all networks > 0.8).

In a next step, a second PCA was carried out with the eleven Behavioural Trust items⁸. Results match the items into three components: $Activity\ Privacy$ (religion published, political attitude published, sexual preferences published), $Personal\ Privacy$ (age/birthday published, gender published, relationship status published) and $Visual\ Privacy$ (videos of you published, photos of your family/partner published, photos of acquaintances published). The factor loadings for all items range from 0.647 to 0.864. The p-value of the KMO (0.855) being at a very good level and the Bartlett's test of sphericity (< 0.01) being highly significantly resulting in a good model fit. Again, index scores of the three Behavioural Trust components were built. The overall index scores for the full sample across all national markets are the following: $Activity\ Privacy$ ($\overline{X}=4.124$), $Personal\ Privacy$ ($\overline{X}=7.587$) and $Visual\ Privacy$ ($\overline{X}=4.420$). There are differences regarding the trust levels per national market: For the $Activity\ Privacy$ index China ($\overline{X}=5.027$) holds the highest level of trust, followed by the USA ($\overline{X}=4.945$) and the UK ($\overline{X}=4.693$). Results suggest, that users in those countries are more likely to share their religion, political attitudes and sexual preferences than

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⁷ Table 25 and Table 26 in the appendix show results of the PCA of Brand Trust

⁸ Table 27 in the appendix show results of PCA of Behavioural Trust Components

users from Russia ($\bar{X}=4.021$), Germany ($\bar{X}=3.129$) and France ($\bar{X}=2.966$). *Personal Privacy* shows the highest index score by far in Russia ($\bar{X}=8.475$) compared to users in China ($\bar{X}=7.765$), France ($\bar{X}=7.512$), USA ($\bar{X}=7.317$), Germany ($\bar{X}=7.292$) and the UK ($\bar{X}=7.151$). Russian users seem to have a higher level of trust when it comes to sharing their gender, age, place of residence and relationship status than any other users. Looking at the *Visual Privacy* index it is remarkable that users from Russia ($\bar{X}=5.130$), USA ($\bar{X}=5.105$), UK ($\bar{X}=4.917$) and China ($\bar{X}=4.912$) share a similar level of trust whereas users from France ($\bar{X}=3.467$) and Germany ($\bar{X}=2.983$) obviously less likely share photos or videos of themselves and their friends on OSNs.

To follow up on the descriptive results linear regression analysis (LRA) were carried out with the factor score of Brand Trust for the most frequently used OSN per national market, based on the full sample of all test markets. The results (Table 7) show a significant positive effect of Brand Trust on all three Behavioural Trust components across all national markets. However, looking at the results country by country (Table 8), we find that Brand Trust only has a positive relationship with *Activity Privacy* in the USA and in the UK, but in no other national market. In contrast, the positive correlation of Brand Trust and the two other Behavioural Trust dimensions is almost universal. *Personal Privacy* shows a highly significantly effect in the USA, the UK, Germany, and France. It has a positive but only weakly significant effect in China. Only in Russia, we find no significant (p > 0.05) correlation between Brand Trust and *Personal Privacy*, which is surprising given the remarkably high index score. Finally, the third dimension of Behavioural Trust, *Visual Privacy*, has a highly significantly positive correlation with Brand Trust in all countries. It seems that OSN users – regardless of their cultural heritage – are more likely to share photos or videos of themselves and their peers the more Brand Trust they have for their OSN.

Indeed, this strong result seems to hold, even within each single OSN. Looking at the results of LRA within the subsample of users of only one network for each country, the correlation of Brand Trust and Visual Privacy is relatively high (subsample N = 1,380: Users of only one network; USA, UK, France, Germany: Facebook. Russia: Bkontakte. China: QQ; p-Value < 0.01; B = 0.142; Beta = 0.387; \bar{R}^2 = 0.149). Age, Gender, Education (1 = "low educational level", 2 = "medium educational level", 3 = "high educational level") and Monthly Household Net Income (1 = "low income", 2 = "medium income", 3 = "high income", 4 = "very high income") were used as independent control variables in all three

regression models to check on potential biases towards Brand Trust and socio-demographic factors, but the correlation between Brand Trust and Activity Privacy, Brand Trust and Personal Privacy and Brand Trust and Visual Privacy remains unaffected of all control variables, with Brand Trust being significantly positive correlated in all three ANOVA models⁹. However, Age is significantly negatively correlated with Activity Privacy ($\beta = -$ 0.042*), Personal Privacy ($\beta = -0.045*$) and highly significantly negatively correlated with Visual Privacy ($\beta = -0.203**$) indicating that younger users have higher levels of Behavioural Trust than older users. Gender is highly significantly negatively correlated with Activity Privacy ($\beta = -0.155**$) and significantly negatively correlated with Personal Privacy ($\beta = -0.155**$) 0.039**) resulting in women having higher levels of Activity Privacy (e.g. publishing of religion/sexual preferences), and Personal Privacy (e.g. publishing of age/gender) than men. However, Gender is not significantly correlated to Visual Privacy. Education is highly positively correlated to Activity Privacy ($\beta = 0.077**$) indicating that users with a high education are more likely to share e.g. their religion or their sexual preferences in OSNs, but not significantly correlated to Personal Privacy. However, Education is also highly significantly positively correlated to Visual Privacy ($\beta = 0.059**$) suggesting that users with a high education share more photos and videos than users with a low education. Monthly Household Net Income is significantly negatively correlated with Activity Privacy ($\beta = -$ 0.037*) and Personal Privacy ($\beta = -0.042*$), suggesting that users with a lower income publish their age, gender but also their religion or their sexual preferences more frequently than users with a high income. However, Household Net Income is not significantly correlated with Visual Privacy. Hence, we can regard H1 as widely true: There is a positive correlation between Brand Trust and Behavioural Trust. Whereas Activity Privacy (H1. a) is only significant correlated to Brand Trust in the USA and the UK, Personal Privacy (H1. b) is significant correlated to Brand Trust in the USA, in the UK, in Germany, and in France. Visual Privacy (H1.c) is significant correlated to Brand Trust across all national markets.

Table 7: LRA; Brand Trust on Behavioural Trust Components

	p-Value	В	SEM	β	$\mathbf{\bar{R}^{2}}$
Activity Privacy	< 0.01	0.095	1.037	0.095	0.009
Personal Privacy	< 0.01	0.112	0.912	0.122	0.015
Visual Privacy	< 0.01	0.317	0.969	0.310	0.096

 $^{^9}$ (**) p-Value \leq .01; (*) p-Value \leq .05; () not significant, p-Value > .05 level

Table 8¹⁰: LRA; Effects of Brand Trust on Behavioural Trust Components per Market

	Visual Privacy	Personal Privacy	Activity Privacy
USA	++	++	++
UK	++	++	++
FR	++	++	n.s.
GER	++	++	n.s.
RUS	++	n.s.	n.s.
CN	++	+	n.s.

To address the question whether the effect of Brand Trust on Behavioural Trust differs across different cultural groups the dummy variable Region was created and coded as follows: 0 = Anglo-Saxon Countries (AS), 1 = Central European Countries (CE) and 2 = Eastern Eurasian Countries (EE). LRA of Brand Trust and the three Behavioural Trust Dimensions were conducted for each region. The summary of results can be seen in Table 9; Region has a significant positive effect in the ANOVA model of Brand Trust on Activity Privacy between AS markets and CE markets and a highly significantly positive effect between AS markets and EE markets. There is also a moderator effect of Region in the regression model of Brand Trust on Personal Privacy; Brand Trust has a stronger effect on Personal Privacy in AS markets than in EE markets yet there are no effects of Region between AS and CE markets and CE and EE markets. There is a moderator effect of Region in the regression model of Brand Trust on Visual Privacy. Given the sign of the coefficient, Brand Trust has a stronger impact in AS markets than in CE markets as well as in EE markets; Again, there is no significant effect of Region between CE markets and EE markets. It seems that the moderator effect of Region as a proxy variable for cultural distance becomes more obvious when taking a big step by comparing AS to EE markets. However, when taking a smaller step by comparing AS to CE markets or CE to EE markets the moderator effect is not always significant since the cultural differences are smaller. To get a better visual understanding of effects plotting was carried out. As can be seen in Figure 1, Figure 2 and Figure 3, the gradient of the straight line of AS is always highest, followed by the straight line of CE and EE has the always the lowest gradient of the straight line. Thus, H2 a. b. and c. must be regarded as true; The relationship between Brand Trust and the three Behavioural Trust components grows stronger going from East to West. These findings support the application

1

 $^{^{10}}$ USA: N = 962; UK: N = 796; GER: N = 501; FR: N = 813; CN: N = 482; RUS: N = 540 Positive sign of coefficients. (++) p-Value \leq .01; (+) p-Value \leq .05; (n.s.) not significant, p-Value > .05 level

of Hofstede's cultural dimensions; AS countries show the highest levels of Individualism thus the respondent's specific level of trust has a high and direct impact on their individual actions manifested as Behavioural Trust. Collectivistic regimes on the other hand leave less space for individualistic behaviour – thus the positive correlation of Brand Trust and Activity Privacy/Personal Privacy/Visual Privacy is less pronounced.

Table 9¹¹: Probing of Interactions; Moderator Effect of Region

	Activity 1	Privacy			Visual P	rivacy	
	AS - CE	CE - EE	AS - EE		AS - CE	CE - EE	AS - EE
N	3,072	2,336	2,780	N	3,072	2,336	2,780
R-sq	0.103	0.022	0.49	R-sq	0.202	0.086	0.144
Constant	0.350**	-0.549**	0.350**	Constant	0.371	-0.534	0.371
Brand Tr	0.170**	-0.022	0.170**	Brand Tr	0.463**	0.260**	0.463**
Region	-0.645**	0.254**	-0.196**	Region	-0.553**	0.352**	-0.101**
Interaction	-0.145**	0.047	-0.049*	Interaction	-0.240**	-0.037	-0.138**

Personal Privacy						
	AS - CE	CE - EE	AS - EE			
N	3,072	2,336	2,780			
R-sq	0.047	0.011	0.051			
Constant	-0.126**	0.143*	-0.126**			
Brand Tr	0.143**	0.165**	0.143**			

Cons 5** 0.143** Brand Tr 0.1650.306** 0.172** Region 0.038 Interaction -0.032-0.053 -0.042*

¹¹ Positive sign of coefficients. (**) p-Value ≤ .01; (*) p-Value ≤ .05; () not significant, p-Value > .05 level Brand Tr = Brand Trust Factor Score Top 1 Online Social Network Interaction defined as Brand Trust Factor Score x Region; (AS) = 0 (CE) = 1 (EE) = 2

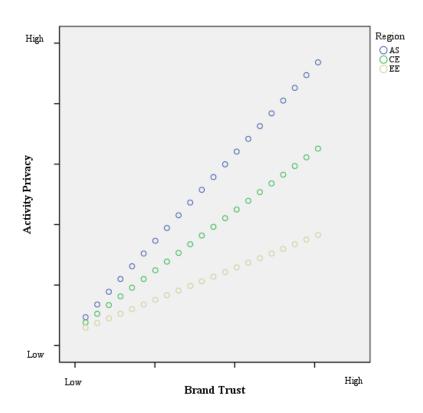


Figure 1: Plotting; Moderator Effect of Region, Brand Trust on Activity Privacy

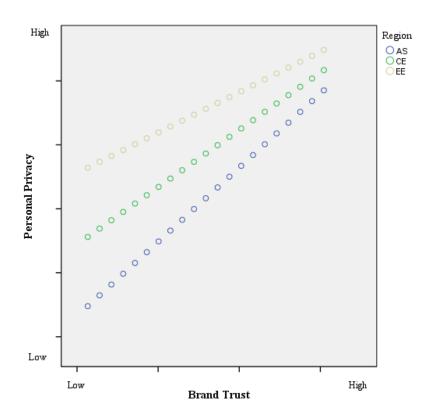


Figure 2: Plotting; Moderator Effect of Region, Brand Trust on Personal Privacy

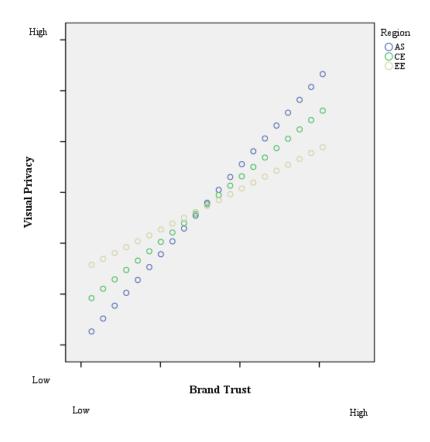


Figure 3: Plotting; Moderator Effect of Region, Brand Trust on Visual Privacy

To validate an effect of Private Usage in the correlation of Brand Trust and Behavioural Trust the dummy variable Private Usage was coded as follows: 0 = ``I predominantly use social networks privately."; "I use social networks in equal measure, both privately and professionally."; "I only use social networks professionally."; "I predominantly use social networks professionally." 1 = ``I only use social networks privately." As can be seen in Table 10, more than 65 percent of users only use OSNs only privately, whereas just 1.1 percent of users use OSNs only professionally. Private Usage has no significant effect (p < 0.05) in the ANOVA models of Brand Trust and Activity Privacy, Brand Trust and Personal Privacy and Brand Trust and Visual Privacy. Thus, H3 a. b. and c. must be regarded as true: Private Usage has no significant effect on the relationship between Brand Trust and the three Behavioural Trust components.

Table 10: Frequencies of Private Usage versus Business Usage

	N	Percent
I only use social networks privately.	3,897	65.1
I predominantly use social networks privately.	1,251	20.9
I use social networks in equal measure, both privately and professionally.	716	12
I predominantly use social networks professionally.	62	1
I only use social networks professionally.	64	1.1
	5,990	100

To validate an effect of Multi-Homing for the correlation of Brand Trust and Behavioural Trust dummy variable Multi-Homing was coded as follows: 0 = users of only one OSN and 1 = users of two or more OSNs. As can be seen in Table 11, 30.7 percent of all respondents use only one OSN whereas 69.3 percent of users use two OSNs or more. Differences between the markets are remarkable: Whereas in Anglo-Saxon (AS) markets just 50.5 percent of the users apply Multi-Homing 86.2 percent of users from Central European (CE) markets apply Multi-Homing and almost 90 percent of users from Eastern Eurasian (EE) markets apply Multi-Homing. Multi-Homing is decreasing significantly going from East to West.

Table 11: Frequencies of Multi-Homing and Single-Homing in Cross-Cultural Markets

Countries	Single-Homing (N)	Percent	Multi-Homing (N)	Percent	Total (N)
Anglo-Saxon	992	49.53	1,011	50.47	2,003
Central European	640	31.76	1,375	68.24	2,015
Eastern Eurasian	204	10.34	1,768	89.66	1,972
Total	1,836	30.70	4,154	69.30	5,990

Multi-Homing has no significant effect for the relationship between Brand Trust and Activity Privacy and Brand Trust and Personal Privacy with the p-value of the interaction terms being not significant (< 0.05). Hence, H4 a. and b. must be regarded as false. However, there is a highly significantly (p-value < 0.01) effect of Multi-Homing in the correlation of Brand Trust and Visual Privacy Given the sign of the coefficient of the interaction term (b = 0.133) Brand Trust has a stronger impact when users apply single-homing than Multi-Homing. As can be seen in the plotting analysis in Figure 4, the straight line of Single-Homing has a higher gradient than the straight line of Multi-Homing. Thus, H4 c. must be regarded as true: Multi-Homing has a significant negative effect for the correlation of Brand Trust and *Visual Privacy*; We can regard H4 as widely true.

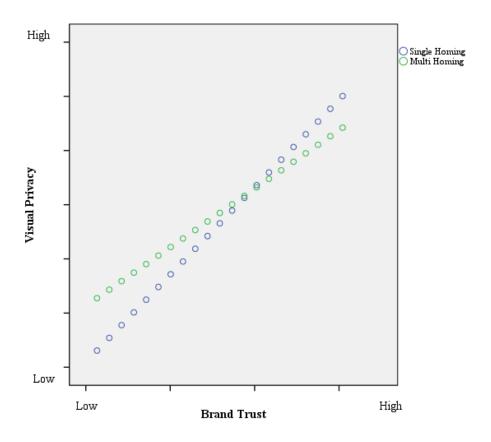


Figure 4: Plotting; Moderator Effect of Multi Homing, Brand Trust on Visual Privacy

3.5 Conclusion

Previous research indicates that Brand Trust plays a vital role on brand outcomes (e.g. Chaudhuri & Chatterjee, 2005) and we can replicate these findings for the effect of Brand Trust on Behavioural Trust in online social networks. In doing so, we adapt the scale of Chaudhuri and Holbrook (2001) for Brand Trust to OSNs. Furthermore, we built the Behavioural Trust construct based on three components: *Activity Privacy* (publishing of activities such as religion or sexual preferences), *Personal Privacy* (publishing of age/gender) and *Visual Privacy* (publishing of photos/videos). Women have a higher level of *Activity Privacy* (publishing of activities such as religion or sexual preferences) and *Personal Privacy* (publishing of age/gender) then men. Cultural differences are examined for the effect of Brand Trust on Behavioural Trust for six national markets: The effect of Brand Trust on Behavioural Trust is stronger in Western markets than in Eastern markets. Moreover, we can confirm this effect by clustering three regional markets: Anglo-Saxon (USA, UK), Central Europe (Germany, France) and Eastern Eurasia (Russia, China). These results are in line with the Individualism versus Collectivism dimension of Hofstede (1980). Previous research found

that privacy policy often differs in e-commerce B2B and B2C (Vakeel et al, 2017) however, we found that Private Usage does not have an influence on the relationship between Brand Trust and the three Behavioural Trust Components: *Activity Privacy, Personal Privacy* and *Visual Privacy*. Additionally, we found that Multi-Homing (use of more than one OSN simultaneously) has a significant negative influence on the relationship between Brand Trust and *Visual Privacy*. Results lead to the assumption that multi-homers do not worry much about the brand of the OSN.

Due to the rigor in the data-collection process findings of this study are expected to be particularly robust. However, further research is needed at both – the individual level of OSN companies (e.g. Facebook) and the aggregated level (OSNs in general) for further practical purposes of decision making. We found that Brand Trust is positively correlated to Behavioural Trust which can be seen as a form of content creation in OSN. However, there may be well other antecedents of OSN success. Future research should examine other potential determinants of success for OSN, e.g. extension of usage (content consumption).

Managers should take cultural differences into consideration when running OSNs in culturally diverse national markets. This is in particular true for Eastern OSN companies who plan to extend their business to Western markets. Moreover, international companies (e.g. Facebook) which have established OSNs in several national markets should allocate their budgets for trust campaigns in favour of Western regions. Similarly, marketers should take the culturally based trust differences in OSN into consideration, when designing marketing campaigns. Marketing messages that appear intrusive due to a high degree of personalisation based on user data are bound to trigger more negative repercussions in low than in high Brand Trust regions. These repercussions may include a further deterioration of Behavioural Trust in low Brand Trust areas, e.g. a retraction of personal information from the OSN or a reduction of activity in the OSN. Furthermore, female users share their activities (such as religion or sexual preferences) and personal information (such as age and gender) more frequently than male users and thus are more relevant to OSNs than male users. OSN companies should therefore allocate their budgets in favour of female users. Setting up different privacy policies for B2B and B2C users of OSN has no significant positive effect on the relationship between Brand Trust and Behavioural Trust. ONS companies which have private users and business users (e.g. Facebook) do not need different privacy policies.

4. How Do Brand Trust and Behavioural Trust Affect Usage Intensity in Online Social Networks?

4.1 Introduction

Literature provides a lot of research on Usage Intensity for websites and OSNs e.g. Thorbjørnsen and Supphellen (2004) found, that brand loyalty is significantly positively related to frequency of website usage for website on well-known brands and Wirtz et al (2017) found that internal core functions, need for data privacy, need for new friends and need for social self-portrayal show significant positive effects on Usage Intensity for users of Facebook. Chu et al (2016) found that both independent and interdependent self-construal were positively related to Usage Intensity in OSNs among Chinese and American users. Park et al (2015) found that Usage Intensity of OSNs is affected by consumer innovativeness, propensity to share information and privacy concerns and Ballings and Van den Poel (2015) found that the most important factors of use intensity include deviation from regular usage patterns, frequencies of likes of specific categories and group memberships, average photo album privacy settings, and recency of comments. Yu-Hui et al (2016) found that "perceived ease of use" and "perceived usefulness", "feelings of temporal dissociation", "heightened enjoyment" and curiosity effect the users' intentions to use OSNs. Results of other research support correlation of social connectedness and usage frequency for Twitter users (Riedl et al, 2013). Previous research also indicates on a positive relationship between trust of users and loyalty towards a website, e.g. Miao-Que and Lee (2012) found that Brand Affect and Brand Trust have mediator effects on Brand Loyalty of retail websites). In Chapter 3 we found, that attitudinal variable Brand Trust is highly positive correlated to OSN trust scale Behavioural Trust. In the framework of OSNs the attitude-behaviour relationship of Brand Trust and Behavioural Trust appears strong and positively correlated, leading to the assumption that there is a positive relationship between Brand Trust and Usage Intensity in OSNs, too. Based on the validated Brand Trust scale of Chaudhuri and Holbrook (2001), we provide the first study to examine the impact of Brand Trust on Usage Intensity in OSNs. However, some authors define trust as a scale based on users' behaviour in OSNs (e.g. Yan et al, 2013; Bo et al, 2017; Li et al, 2016) contrary to a trust scale based on users' attitude. We therefore examine the relationship of Brand Trust, Behavioural Trust and Usage Intensity in OSNs. Behavioural Trust is based on the ways users share data in their networks, dividing shared user data into relevant categories: Activity Privacy (publishing of activities such as religion or sexual preferences), Personal Privacy (publishing of age/gender) and Visual Privacy (publishing of photos/videos). To address the cross-national differences in user attitudes and user behaviour we use one of Hofstede's culture dimensions: Individualism versus Collectivism (1980). This dimension refers to the degree to which people in a country prefer to act as individuals rather than as members of a society. In Chapter 3 we found that the behavioural intent (Behavioural Trust) of OSN users from individualistic markets such as USA and UK are guided more by Brand Trust than users of collectivistic markets such as Russia or China, and we expect the same for Usage Intensity and Brand Trust in this study. Since competition amongst OSN is becoming intense and resulting in more users using multiple OSN at the same time (Gu, Oh & Wang, 2016) we examine the role of Multi-Homing on the relationship between Brand Trust and Usage Intensity. Furthermore, the roles of Age and Gender on the relationship between Brand Trust and Usage Intensity are examined.

4.2 Hypotheses

Previous research indicates that there is a positive relationship between Brand Trust and positive brand outcomes (Lau & Lee, 1999; Delgado-Ballester & Munuera-Alemán, 2000; Chaudhuri & Chatterjee, 2005) and in Chapter 3.5 we conclude a significant positive correlation of attitudinal variable Brand Trust and behavioural variable Behavioural Trust in OSNs. Hence it is conceivable, that there is a positive relationship between Brand Trust and Usage Intensity. We therefore propose;

H1: There is a positive correlation of Brand Trust and Usage Intensity for users of OSNs.

Many authors explain cross-cultural difference impact on online activities with Hofstede's 1980 framework of culture dimensions (Vitkauskaite, 2012), e.g. in a recent study Stump and Wen (2017) found, Hofstede's dimension "long term orientation" significantly impacts the time spent on OSNs. Park et al (2015) found that the positive impact of innovativeness on Usage Intensity of OSNs is alleviated in the Collectivism culture and these results are in line with our own results: In Chapter 3 we found the effect of Brand Trust on Behavioural Trust is stronger in Western markets than in Eastern markets. Thus, we expect Usage Intensity of OSN users from individualistic markets such as USA and UK to be guided more by Brand Trust than users of collectivistic markets such as Russia or China.

Figure 5 shows the conceivable moderator effect of Region in the relationship between Brand Trust and Usage Intensity. We therefore propose;

H2: The correlation of Brand Trust and Usage Intensity in OSNs is stronger in Western markets than in Eastern markets.

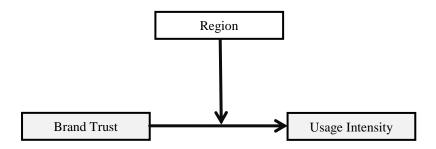


Figure 5: Model Overview; Moderator Effect of Region

Few studies have examined factors of Multi-Homing in OSNs, but in a recent study Gu et al (2016) found interpersonal communication and information aspects significantly effect users' intention to multi-home in OSNs. In Chapter 3, we found a negative effect of Multi-Homing for the relationship between Brand Trust and *Visual Privacy* (publishing of photos/videos) meaning that users of only one OSN are more affected by their trust in that network. Our research also found huge differences of Multi-Homing in OSNs between individualistic (USA, UK) and collectivistic (China, Russia) cultures; Whereas in USA and UK just over 50 percent of the users apply Multi-Homing, more than 68 percent of users from Germany and France apply Multi-Homing. In China and Russia almost, 90 percent of OSN users apply Multi-Homing. We therefore expect that there is a negative effect of Multi-Homing for the relationship between Brand Trust and Usage Intensity. As Multi-Homing expressively increases going from West to East it is also likely that the negative effect of Multi-Homing on the relationship between Brand Trust and Usage Intensity is higher in Western markets than in Eastern markets. We therefore propose;

H3: Multi-Homing has a significant negative effect on the correlation of Brand Trust and Usage Intensity and this negative effect is stronger in Eastern markets than in Western markets.

A previous study of Hyoseon (2017) has identified several situations where trust serves as a major resource or convertible asset of a company. Furthermore, previous research suggests a positive effect of trust and usage of OSNs (Wu, Huang & Hsu, 2014). Given the

positive relationship between Brand Trust and Behavioural Trust and the likely positive relationship between Brand Trust and Usage Intensity, it is conceivable that there is a positive relationship between Behavioural Trust and Usage Intensity. We therefore propose;

H4: There is a significant positive correlation between Brand Trust, Behavioural Trust and Usage Intensity.

Social media has moved beyond personal friendship to other wider interactions, e.g. career-related interactions (Rooderkerk & Pauwels, 2016). However, many users are more likely to add contacts to their OSN if they are friends in real life. "I won't friend someone online, if I wouldn't be friends in real life" states Associate Publisher of the Seattle Times Ryan Blethen in an article published on the website of the newspaper, but in the article, he also says that he exchanges with his real-world friends on Facebook quite intensively (Blethen, 2009: 1). Indeed, it is conceivable that users use OSNs more intensively, if they have met many of their OSN contacts in real life. Furthermore, it is conceivable that Usage History positively affects Usage Intensity since users who use OSNs for a longer period may feel more familiar with OSNs and use them more intensively. Additionally, it is likely that users use OSNs more intensively for private purposes than for business purposes: Although, Keinänen & Kuivalainen found that private social media usage has the most significant relationship with social media business use (Keinänen & Kuivalainen, 2015), Mizzi et al (2015) found in a recent study that the extent to which OSNs are used by large enterprises in Malta is quite low. Some authors found that women use OSNs more conservatively than men (Bercovici, 2012) and use the internet less intensively (Akman & Mishra, 2010). However, as we have concluded in Chapter 3.5, women share personal information and activities more frequently in OSNs than men, such as gender, age, religion and sexual preferences. It is therefore conceivable, that women use OSNs more intensively than men. Previous studies found that other socio-demographic factors can influence Usage Intensity of OSN too. Correa (2016) found that lower educated young people in Chile use OSNs more frequently than higher educated people and older people. Other research suggests differences between younger users and older users when using OSNs (Chang et al, 2015). Age may affect Usage Intensity indeed, since younger users are believed to use OSNs more extensively than older users. Although some authors claim that in the participatory web environment, social content is more likely to be created by non-elites, such as lower-income people or racial minorities (Blank, 2013), a recent study found Italian teenagers from 'lower-income' families are more enthusiastic about the communication and relational features of OSNs (Micheli, 2016). It is

therefore conceivable that household income is negatively correlated with Usage Intensity in OSNs. Finally, it is conceivable that Multi-Homing directly negatively affects Usage Intensity. We therefore propose;

H5. There is;

- a. a significant positive correlation between Met in Real Life,
- b. a significant positive correlation between Usage History,
- c. a significant positive correlation between Private Usage,
- d. a significant positive correlation between Gender,
- e. a significant negative correlation between Educational Level,
- f. a significant negative correlation between Age,
- g. a significant negative correlation between Monthly Net Household Income, and
- h. a significant negative correlation of Multi-Homing and Usage Intensity in OSNs.

4.3 Research Design

Respondents were asked how frequently they post something in their OSNs. (1) "Less often than once a week", (2) "One to three times a week", (3) ", Four to five times a week", (4) "Everyday". The following question was concerned with how many of their OSN contacts users have met in real life via a 11-Likert scale ("1 I met 0% of my contacts in real life" to "11 I met 100% of my contacts in real life"). The next question was concerned with how long users have been using OSNs. (1) "Less than six months"; (1) "Six months or longer". Other variables and constructs used in this study have been described in the previous study.

A sample of N = 6,216 respondents from the USA, UK, Germany, France, Russia and China were recruited via online access panels¹². After elimination of incomplete interviews and "speeders" ¹³ we obtained an overall sample of N = 5,990: USA (N = 1,047), UK (N = 956), Russian Federation (N = 1,010), France (N = 1,063), Germany (N = 952) and China (N = 962).

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¹² Survey conducted in February 2011. German, British, French and Russian respondents were recruited via the Respondi online access panel. Respondents from the US were recruited via the Western Wats online access panel. Respondents from China were recruited via the AIP online panel. The questionnaire was programmed and hosted by Respondi.

¹³ Manual: Enterprise Feedback Suite EFS Survey (p. 569) 10.4/1.0, Date: 15.10.2014

4.4 Results

As can be seen in Figure 6, most users use OSN two hours per week or more across all markets. OSN users in the UK hold the highest level of Usage Intensity with 44.21 percent of users spending 6 hours per week or more in their OSN, followed by France (36.33 percent), Russia (35.08 percent), Germany (32.91 percent), China (32.08 percent) and USA (31.15 percent).

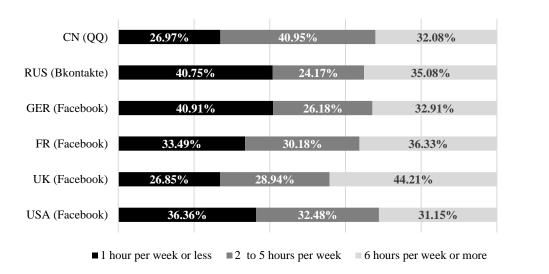


Figure 6¹⁴: Usage Intensity in Online Social Networks

However, when looking at the frequencies of user postings as can be seen in Figure 7 in Germany (62.82 percent), Russia (57.03 percent), France (56.07 percent) and USA (50.33 percent) most users post content less often than once a week in their OSNs compared to China (30.46 percent) and the UK (49.79 percent) where most users post content at least once a week. In the UK 27 percent of users post content in OSNs at least 4 times a week and in China 34 percent of users post content in OSNs at least 4 times a week.

¹⁴ USA: Facebook (N = 962); UK: Facebook (N = 796); GER: Facebook (N = 501); FR: Facebook (N = 813); CN: QQ (N = 482); RUS: Bkontakte (N = 540)

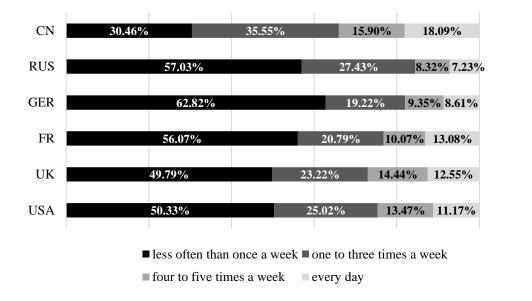


Figure 7¹²: Frequencies of User Postings in Online Social Networks

To follow up on the descriptive results linear regression analysis (LRA) was carried out with the factor score of Brand Trust and Usage Intensity for the most frequently used OSN for the full sample. The results show a significant positive effect of Brand Trust on Usage Intensity (p-Value < 0.01; B = 0.142; Beta = 0.431; \bar{R}^2 = 0.186). Looking at the results country by country (Table 12), we find that Brand Trust has a highly significantly positive correlation with Brand Trust in all countries. Independent control variables Age, Gender, Education (1 = "low educational level", 2 = "medium educational level", 3 = "high educational level") and Monthly Household Net Income (1 = "low income", 2 = "medium income", 3 = "high income", 4 = "very high income") were used to check on potential biases towards Brand Trust and socio-demographic factors in the regression model. Results confirm that the correlation of Brand Trust and Usage Intensity remains unaffected by all four control variables with Brand Trust being highly significantly positively correlated to Usage Intensity $(\beta = 0.377**)$. However, Age is highly significantly negatively correlated with Usage Intensity ($\beta = -0.174**$) resulting in young users using OSNs more intensively than old users. Furthermore, Gender is significantly positively correlated with Usage Intensity ($\beta = 0.044$) confirming women use OSNs more intensively than men. Monthly Household Net Income is significantly negatively correlated to Usage Intensity ($\beta = -0.046*$) indicating that users with a higher income spend less time in OSN than users with a lower income; whereas Educational Level is not significantly correlated to Usage Intensity. Thus, H1 must be regarded as true: There is a positive correlation of Brand Trust and Usage Intensity for users of OSNs in all countries.

Table 12¹⁵: LRA; Brand Trust on Usage Intensity

	N	В	β	$\mathbf{\bar{R}^2}$
USA	962	1.106**	0.513	0.262
UK	796	1.091**	0.508	0.257
FR	813	0.878**	0.403	0.161
GER	501	0.947**	0.425	0.179
RUS	540	0.979**	0.445	0.198
CN	482	0.371**	0.193	0.035

To validate a regional effect of Brand Trust on Usage Intensity the dummy variable Region was used as a moderator variable. Region was coded as follows; 0 = Anglo-Saxon Countries USA and UK (AS), 1 = Central European Countries Germany and France (CE) and 2 = Eastern Eurasian Countries Russia and China (EE). The summary of results can be seen in Table 13; Region has a significant positive effect in the ANOVA model of Brand Trust on Usage Intensity between AS markets and CE markets and a highly significantly positive effect between AS markets and EE markets. There is also a significant positive effect of Region between CE and EE markets however, the effect is weaker. It seems that the moderator effect of Region becomes more obvious when taking a big step by comparing AS to CE and AS to EE markets. When taking a smaller step by comparing CE to EE markets the moderator effect is weaker since the cultural differences are smaller. For a better, visual understanding of the effect plotting was carried out. As can be seen in Figure 8, the gradient of the AS straight line is highest, followed by the CE straight line and the EE straight line has the lowest gradient, indicating that the positive correlation of Brand Trust and Usage Intensity is indeed stronger in Western markets than in Eastern markets. Hence, H2 must be regarded as true; The relationship between Brand Trust and Usage Intensity grows stronger going from East to West.

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 $^{^{15}}$ (**) p-Value \leq .01; (*) p-Value \leq .05; (n.s.) not significant, p-Value >.05 level

Table 13¹⁶: Probing of Interactions; Moderator Effect of Region

Brand Trust on Usage Intensity

	AS - CE	CE - EE	AS - EE
N	3,072	2,336	2,780
R-sq	0.219	0.156	0.211
Constant	3.602**	3.757**	3.789**
Brand Trust	1.016**	0.812**	0.95**
Region	-0.106	0.494**	0.194**
Interaction	-0.195**	-0.213**	-0.204**

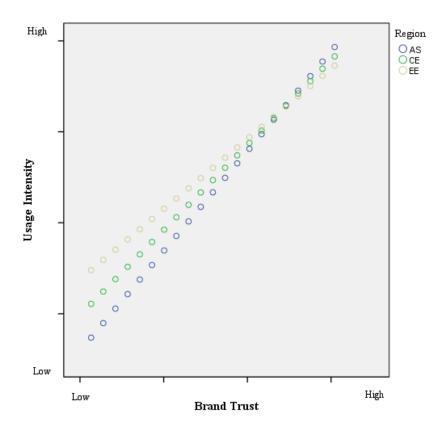


Figure 8¹⁷: Plotting; Moderator Effect of Region, Brand Trust on Usage Intensity

To validate an effect of Multi-Homing in the correlation of Brand Trust and Usage Intensity LRA was carried out with Multi-Homing as a moderator variable. Results show the p-value (0.3619) of the interaction term is not significant at the \leq 0.05 level. Thus, H3 must be

¹⁶ Positive sign of coefficients. (**) p-Value ≤ .01; (*) p-Value ≤ .05; () not significant, p-Value > .05 level Brand Trust = Brand Trust Factor Score Top 1 Online Social Network Interaction defined as Brand Trust Factor Score x Region; (AS) = 0 (CE) = 1 (EE) = 2

¹⁷ AS = Anglo-Saxon countries USA and UK

CE = Central European countries Germany and France

EE = Eastern Eurasian countries Russia and China

regarded as false: Multi-Homing has no significant effect for the correlation of Brand Trust and Usage Intensity.

To further assess the relationship of Brand Trust, Behavioural Trust and Usage Intensity we conducted stepwise multiple regression analyses. As can be seen in Table 14 all three Behavioural Trust items are highly significantly positively correlated with Usage Intensity; Visual Privacy (0.185) has the highest Beta followed by Personal Privacy (0.072) and Activity Privacy (0.066). Model II has a higher coefficient of determination (22.3 percent) than Model I. (18.6 percent). Hence, H4 must be regarded as true: There is a significant positive correlation between Brand Trust, Behavioural Trust and Usage Intensity.

As can be seen in Model III, Age is highly significantly negatively correlated with Usage Intensity and appears to be an important factor of Usage intensity as it shows the highest beta value (-0.120) after Brand Trust (0.307) and Visual Privacy (0.136), indicating that young users use OSN more extensively than elder users. Gender is highly positively correlated with Usage Intensity, confirming that women use OSNs more intensively than men. Private Usage is highly negatively correlated with Usage Intensity, indicating that users who use OSNs professionally, or professionally and privately spend more time in OSNs than users who only use OSNs privately. This is a remarkable result leading to the assumption that users who use OSNs professionally have a high affinity to OSNs and spend more time in OSNs privately, as well. Usage History is significantly positively correlated with Usage Intensity, suggesting that users use OSNs more intensively, if they are registered with a network for a longer period. Monthly Household Net Income is significantly negatively correlated with Usage Intensity, indicating that respondents with a high income spend less time in OSNs. Model III. (24.2 percent) holds a higher value of R² than Model II (22.3 percent). However, Multi-Homing is not significantly correlated to Usage Intensity, suggesting that users may use various networks simultaneously, while using each network equally intensively. Furthermore, Met in Real Life is not significantly correlated with Usage Intensity, suggesting that many users use OSNs intensively, regardless if they have met their contacts in real life or not. Likewise, Educational Level is not significantly correlated to Usage Intensity, indicating that users use OSNs equally insensitively, regardless of their education. With an R² of 0.242 model III achieves a relatively high explanation of variance; looking at the stepwise model configuration it is remarkable that the initially high coefficient of Brand Trust remains the most effective factor of Usage Intensity even under consideration of various sociodemographic and behavioural variables. Thus, H5 must be regarded as widely true: Whereas there is no significant negative correlation between Met in Real Life and Usage Intensity (H5.a), Usage History is significantly positively correlated to Usage Intensity (H5.b). Private Usage is not negatively but highly significantly positively correlated with Usage Intensity (H5.c). Gender is highly positively correlated to Usage Intensity (H5.d). There is no significant correlation between Educational Level and Usage Intensity (H5.e) whereas, Age is highly significantly negatively correlated to Usage Intensity (H5.f). Monthly Household Net Income is significantly negatively correlated to Usage Intensity (H5.g), however Multi-Homing is not significantly correlated to Usage Intensity (H5.h).

Table 14¹⁸: LRA Models with Beta Values of Factors; Dependent Variable: Usage Intensity

	I.	II.	III.
Brand Trust	0.431**	0.358**	0.307**
Visual Privacy		0.185**	0.136**
Personal Privacy		0.072**	0.076**
Activity Privacy		0.066**	0.060**
Private Usage			-0.065**
Age			-0.120**
Gender			0.059**
Usage History			0.037*
Household Income			-0.042*
Multi-Homing			0.032
Met in Real Life			0.031
Educational level			-0.003
$ar{\mathbb{R}}^2$	0.186	0.223	0.242

4.5 Conclusion

In our previous study we found that Brand Trust is highly positive correlated to Behavioural Trust Components *Activity Privacy* (publishing of activities such as religion or sexual preferences), *Personal Privacy* (publishing of age/gender) and *Visual Privacy* (publishing of photos/videos) in OSNs and we can replicate these findings for the effect of Brand Trust on Usage Intensity. These results are in line with various findings of other previous research: Brand Trust has a positive effect on brand outcomes (Delgado-Ballester, Munuera-Alemán and Yagüe-Guillén 2003, Chaudhuri & Chatterjee, 2005). This finding is

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¹⁸ USA: N = 962; UK: N = 796; GER: N = 501; FR: N = 813; CN: N = 482; RUS: N = 540 Positive sign of coefficients. (**) p-Value ≤ .01; (*) p-Value ≤ .05; (*) not significant, p-Value > .05 level

even more remarkable as the impact of the attitudinal construct Brand Trust on Usage Intensity remains highly significant and powerful even under statistical control of behavioural data.

Cultural differences are examined for the effect of Brand Trust on Usage Intensity for six national markets: The effect of Brand Trust on Usage Intensity is stronger in Western markets than in Eastern markets. Moreover, we can confirm this effect by clustering three regional markets: Anglo-Saxon (USA, UK), Central Europe (Germany, France) and Eastern Eurasia (Russia, China). Results replicate findings of our recent study which shows that the effect of Brand Trust on Behavioural Trust is stronger in Eastern markets than in Western markets. Results of both studies are in line with the Individualism versus Collectivism dimension of Hofstede (1980).

In Chapter 3 we found that Multi-Homing (use of more than one OSN simultaneously) has a significant negative influence on the relationship between Brand Trust and *Visual Privacy* (publishing of photos/videos). However, results of this study confirm that Multi-Homing has no significant effect for the correlation of Brand Trust and Usage Intensity. Moreover, Multi-Homing has no significant effect on Usage Intensity. This is a remarkable result, since we also found vast differences of Multi-Homing in OSNs between individualistic (USA, UK) and collectivistic (China, Russia) cultures; Whereas in USA and UK only 50 percent of users use various OSN simultaneously, in Russia and China almost 90 percent use multiple OSNs.

Furthermore, we found that there is a significant positive correlation between Brand Trust, Behavioural Trust and Usage Intensity. The combination of attitudinal trust scale Brand Trust and behavioural trust scale Behavioural Trust explains Usage Intensity to more than 22 percent. However, other factors affect Usage Intensity, too: Age, Gender, Monthly Household Net Income and Usage History (how long users have been using OSN) all are all positively related with Usage Intensity. Surprisingly, Private Usage (using OSN purely for private purpose) is highly significantly negatively correlated to Usage Intensity. Ultimately, users who use OSNs not only privately but also for professional purposes use OSNs more intensively. This may be because the overall time spent in OSNs for professional and private purposes is higher, but it is also likely that business users have a generally higher affinity to OSNs.

As previously discussed, results of this study are expected to be robust given the effort spent on data-collection. However, further research is needed for the understanding of trust. For instance, what level of trust do users have in their OSN compared to other trust-worthy institutions?

In culturally diverse markets managers should take cultural differences into account when running OSNs. Especially Eastern OSNs (e.g. QQ or Bkontakte) who want to extend their business to Western markets should allocate their budgets for trust campaigns in favour of Western markets. Likewise, Western OSNs (e.g. Facebook) should take culturally based trust differences into consideration: Marketing messages with a high degree of individualisation are likely to be officious in collectivistic markets such as Russia and China and may lead to a decline in OSN usage. Moreover, managers should take into consideration that OSN users in Eastern Eurasian markets use various OSNs simultaneously, but this does not correlate negatively with the time they spend in each network. This may encourage managers to seek joint ventures with other social networking sites in collectivistic markets e.g. allowing users to link their Facebook account to their Twitter account. Furthermore, OSN companies should take gender differences and age differences into consideration when running marketing campaigns. Women use OSNs more intensively than men. In our previous study we found that women more frequently share their activities (such as religion or sexual preferences) and personal information (such as age and gender) than men in OSNs. These findings are consistent with literature on women's larger propensity to engage in person-toperson communication online) as compared to men (e.g. Pew Internet and American Life Project, 2000). OSN companies should therefore allocate their marketing budgets in favour of women to benefit from higher user activities and more content creation. Furthermore, managers should take into consideration that elder users use OSNs less extensively than young users. Those age differences may lead to repercussions towards online ads and advertising effects in OSNs. Attempts of OSN companies to engage users to recruit their offline friends e.g. via member-get-member will not necessarily lead to a high degree of Usage Intensity in the network. Users who use OSNs purely privately spend less time in OSNs than users who also use OSNs for their business and this may encourage OSN companies to attract both; businesses and private users. Perhaps, OSN companies should reward user life cycles, e.g. vie free features or monetary or non-monetary incentives to fully benefit from high trust levels of their users.

5. How much Brand Trust Do Users Have in Their Online Social Network Compared to Their Bank and to Their GP?

5.1 Introduction

In Chapter 3 and 4 we found that Brand Trust is positively correlated to Behavioural Trust (usage) and Usage Intensity of OSNs across culturally diverse countries. However, questions globally acting OSNs are confronted with are: How should my network be presented in different cultures to be noticed as being trustworthy? Or: How should marketing messages of my OSN address users in different cultures to be perceived as trustworthy (Schumann et al, 2007)? Hence, the purpose of this study is to explore the level of Brand Trust in OSNs and to compare it to Brand Trust levels of trustworthy institutions of users. Previous research found, that many studies on trust place emphasis on retrospective evaluations of behaviour/performance as key explanations for the trustworthiness of others (Stoneman, 2014), be that trust in public institutions such as government (Nye et al, 1997), the media (Ladd, 2010), the banking/finance sector (Shakespeare et al, 2013), or more targeted groups such as politicians (Pattie & Johnston, 1997) or health professionals (Calnan & Rowe, 2008). However, when comparing trust in government, in the media, or in politicians across different countries, political landscapes are likely to heavily influence users' trust as some political regimes are lacking democratic foundation and may control the local media. Literature provides a lot of studies on trust in banks, e.g. van Esterik-Plasmeijer and van Raaij (2017) found that trust is a strong factor of bank loyalty, and Kabadayi (2016) found that customers with a high level of trust in their banks are less likely to leave their banks even though they are dissatisfied with their primary banking channel. Alalwan et al (2017) found that the adoption of mobile banking for Jordanian bank customers is positively influenced by trust. Other authors believe that trust in banks is a vital factor for the success of banks' activities (Skvarciany & Iljins, 2015). Similarly, trust in doctors has also been a focus for a considerable amount of research for obvious reasons: In democratic societies exist general institutional arrangements that create a need for trust between patients, practitioners and policymakers. For many citizens, the first point of contact of the healthcare system is a person's local general practitioner (Stoneman, 2014). Many empirical studies attempt to identify the extent to which perceptions of trust depend on the nature of the relationship between patient and GP, or whether patient specific factors such as age or type of medical condition are the main drivers (Tarrant et al, 2003; Calnan & Sanford 2004). The need for interpersonal trust with general practitioners (GPs) is heightened by the fact that the relationship is established on the medical vulnerability of the patient who depends on the superior information and knowledge of the GP (Calnan et al, 2004). The need to see a doctor implies at least a basic level of trust from the patient and likewise, the need to save money or take out a loan implies at least an elementary level of trust in a bank from the customer. Thus, to compare Brand Trust levels of OSNs to other independent institutions in culturally diverse markets, we have chosen bank and GP given their nature as drivers of trust across cultural groups. Cross-national differences in users' trust levels are again addressed with the Hofstede model of national culture (1980), with the dimension Individualism vs. Collectivism. In Chapter 3 we found higher levels of Brand Trust in OSNs in individualistic than in collectivistic countries, and in Chapter 4 we found the behavioural intent of OSN users to be guided more by Brand Trust in individualistic countries than in collectivistic countries. Thus, we expect users from individualistic countries to have higher levels of Brand Trust in their GP and in their bank than users from collectivistic countries.

5.2 Hypotheses

Apart from any institutional arrangements of democratic societies, for many patients there will be an ongoing need to rely on a doctor for medical advice and support, and it is the strong interactional nature of this relationship which brings forth issues of trustworthiness (Baker et al, 2003). Based on the antecedent conditions of trust in the micro relationship of patient and GP, trust here can be envisaged as a function of need (Stoneman, 2008; Stoneman, 2014): A patient needs to trust his doctor, if he wants medical advice. The varying degrees of trust customers have in banks, ranging from banks' abilities to keep their money safe and providing customers with unbiased advice (Schlich, 2016) so likewise, trust in banks can be foreseen as a function of need. Indeed, Knell and Stix (2016) found that, although the financial crisis has lowered trust in banks, Austrian banks enjoy a quite a solid level of trust: even at its lowest point (in the second quarter of 2010), 60% of all respondents reported having high or very high trust in banks. However, users' trust in OSN appears to be less of a need, taking into consideration that they could stop to network online without facing health risks or economic disadvantages. In Chapter 3 and in Chapter 4 we found that the relationship between Brand Trust and Behavioural Trust, and Brand Trust and Usage Intensity grows

stronger going from East to West and these results are in line with the framework of one of Geert Hofstede's dimensions of national culture: Individualism versus Collectivism (1980). Thus, we expect Brand Trust in OSNs to be higher in Western countries. However, the relatively low public healthcare standards in collectivistic countries Russia and China often results in low trust levels in physicians (Bennetts, 2016; Aronson, 2007; Rose, 2000; Jing et al, 2013; Zeng, 2013). Moreover, a study of the Higher School of Economics Moscow finds that citizens in Russia traditionally trust state-controlled banks and that consumers have a very low degree of trust in other than state-controlled banks (Ibragimova et al, 2015). Other research found, that trust levels of Russian citizens even in public institutions are the lowest in the world and even behind countries with unstable political systems such as Nigeria and Colombia (Shlapentokh, 2006). Thus, we propose;

H1: In collectivistic countries users have a higher level of Brand Trust in their OSN than;

- a. in their GP/doctor, and
- b. in their bank;

Whereas, in individualistic countries users have a higher level of Brand Trust in

- c. in their GP/doctor, and
- d. in their bank

than in their OSN.

A variety of research suggest, that men and women differ in their trust levels towards other persons or organisations with assorted outcomes, e.g. Wiltshire et al (2011) found lower trust levels for men than for women in doctors whereas, other research suggest the opposite (Blendon, Benson & Hero, 2014). Maddox and Brewer (2005) found that men tend to trust individuals based on whether or not they share group memberships (collective interdependence) whereas, women tend to trust those who share direct or indirect relationship connections, described as relational interdependence. In Chapter 3 we found women to be more influenced by Brand Trust when using OSNs and this result indicates that women have higher levels of Brand Trust in their OSN then men. If relational interdependence is particularly salient for women, it is likely that the micro relationship between GP and patient results in higher levels of trust for women than for men; Whereas the rather impersonal relationship between a customer and a bank is unlikely to trigger trust more for women than for men. Thus, we propose;

H2: Women have;

a. a higher level of Brand Trust in their OSN, and

- b. a higher level of Brand Trust in their GP/doctor, but
- c. a similar level of Brand Trust in their bank than men.

In Chapter 3 we found young users to be more guided by Brand Trust when using OSNs than older users, and we therefore expect young users to have a higher level of Brand Trust in their OSN than older users. Previous research found differences in trust levels among younger and older adults (Pak et al, 2012) and most of that research found higher trust levels for older patients than for younger patients (Balkrishnan et al, 2003; Tarrant et al, 2003; O'Mally et al, 2004). Likewise, previous research found that older customers have higher ratings of trust in financial services (Ennew & Sekhon, 2007), financial institutions such as the European Central Bank (Ehrmann et al, 2013) and we therefore assume older customers to have a higher level of trust in banks, too. We therefore propose:

H3: Young user have a higher level of Brand Trust in their OSN than;

- a. in their GP/doctor, and
- b. in their bank:

Whereas, older users have a higher level of Brand Trust in;

- c. in their GP/doctor, and
- d. in their bank

than in their OSN.

Furthermore, we found in Chapter 3 that educational level does not affect the positive relationship between Brand Trust and Usage Intensity in OSNs. However, education is often found to be one of the strongest factors of trust, more important than age, income, wealth, health or any another individual characteristic (Frederiksen, 2016). Thus, there are indeed reasons to believe that education sometimes increases the propensity to trust people, organisations and institutions. As being described by Selwyn (2012), OSN users have an enhanced capacity to self-organize and provide for themselves and the highly connected, collective and creative qualities of OSN applications are seen to reflect more flexible, fluid and accelerated ways of being. Since OSNs are associated with an enhanced social autonomy - with users now used to having increased control over the nature and form of what they do, it is conceivable that users with a high educational level have more trust in an OSN they can control, than in institutions they cannot control, e.g. their GP and their bank. Thus, we propose;

H4: Users with a high educational level have a higher level of Brand Trust in OSNs than;

- a. in their GP/doctor, and
- b. in their bank;

Whereas, users with a lower educational level have a higher level of Brand Trust;

- c. in their GP/doctor, and
- d. in their bank

than in their OSN.

5.3 Research Design

The first question was concerned with the Brand Trust respondents have in their general practitioner. The five Brand Trust items (Chaudhuri & Holbrook, 2001) are the following. (1) "I fully and completely trust my GP", (2) "I have a lot of experience with my GP", (3) "I am well informed about my GP", (4) "By comparison with other doctors, I know a lot about my GP", (5) "My GP is reliable". Each item was rated via a 7-Likert scale ("not applicable at all" to "fully applicable"). The next question was concerned with the Brand Trust respondents have in their bank. (1) "I fully and completely trust my bank", (2) "I have a lot of experience with my bank", (3) "I am well informed about my bank", (4) "By comparison with other banks, I know a lot about my bank", (5) "My bank is reliable". Each item was rated via a 7- scale ("not applicable at all" to "fully applicable"). Other variables and constructs used in this study have been described in the previous study.

A sample of N = 6,216 respondents from the USA, UK, Germany, France, Russia and China were recruited via online access panels¹⁹. After elimination of incomplete interviews and "speeders" ²⁰ we obtained an overall sample of N = 5,990: USA (N = 1,047), UK (N = 956), Russian Federation (N = 1,010), France (N = 1,063), Germany (N = 952) and China (N = 962).

¹⁹ Survey conducted in February 2011. German, British, French and Russian respondents were recruited via the Respondi online access panel. Respondents from the US were recruited via the Western Wats online access panel. Respondents from China were recruited via the AIP online panel. The questionnaire was programmed and hosted by Respondi.

²⁰ Manual: Enterprise Feedback Suite EFS Survey (p. 569) 10.4/1.0, Date: 15.10.2014

5.4 Results

To compare the trust levels, index scores of the Brand Trust items of GP and bank are built by obtaining the mean of the Brand Trust items. The bank has the highest index score of the Brand Trust items ($\overline{X} = 5.039$) followed by the GP ($\overline{X} = 4.981$) and most frequently used OSN holds the lowest index score ($\bar{X} = 4.750$). Results suggest, that users have most trust in their bank, followed by their GP and their OSN. However, given the close range of the three scores the Brand Trust levels respondents have in their bank, GP and OSN appear to be similar. To follow up on these results, T-tests with the index scores of the Brand Trust items were carried out. For all T-tests, the Brand Trust index score of GP and bank were subtracted from the Brand Trust index score of the OSN. Furthermore, multiple regression analysis was carried out with the Brand Trust index scores of the OSN, GP and bank as dependent variable and dummy variables Region, Age (coded $< 30, 30-49, \ge 50$) and Education (coded Low = 1, Middle = 2, High = 3). The difference of the Brand Trust index scores of GP and bank were built by deducting the index score of the bank from the index score of the GP. As can be seen in Table 15, the difference of the Brand Trust index score of the OSN and the Brand Trust index score of the bank is highly significant and has the lowest negative score (-0.289). The difference of the Brand Trust index score of the OSN and the GP is also highly significant, but the negative score is slightly lower (-0.232). The difference of the Brand Trust index score of the GP and the Brand Trust index score of the bank is significant and the negative score (-0.059) is the smallest of the three pairs.

Table 15²¹: Differences of Brand Trust Index Scores

	Δ AM
OSN - GP	
OSN - Bank	-0.289**
GP - Bank	-0.059*

To compare Brand Trust levels across different cultural groups we first compare the Brand Trust index score levels of OSN, GP and bank country by country. As can be seen in Table 16, in USA the bank ($\overline{X} = 5.197$) has the highest index score followed by the GP ($\overline{X} = 4.922$) and the OSN ($\overline{X} = 4.736$). In the UK the OSN has the highest index score ($\overline{X} = 4.931$) followed by the bank ($\overline{X} = 4.865$) and the GP ($\overline{X} = 4.776$). In France the GP ($\overline{X} = 5.769$) has

²¹ Table 15 and 16: Missing values excluded list-wise. N=4,094
Table 15: (**) p-Value ≤ .01; (*) p-Value ≤ .05; () not significant, p-Value > .05 level

the highest index score followed by the bank ($\overline{X}=4.865$) and the OSN ($\overline{X}=4.522$). In Germany the GP ($\overline{X}=5.246$) has the highest index score followed by the bank ($\overline{X}=5.017$) and the OSN ($\overline{X}=4.126$). In Russia the bank ($\overline{X}=4.946$) has the highest index score followed by the OSN ($\overline{X}=4.866$) and the GP ($\overline{X}=4.002$). In China the bank ($\overline{X}=5.538$) has the highest index score followed by the OSN ($\overline{X}=5.381$) and the GP ($\overline{X}=4.772$).

Table 16²¹: Ranking based on Brand Trust Index Scores

Country	I.	II.	III.
USA	Bank (5.197)	GP (4.922)	OSN (4.736)
UK	OSN (4.931)	Bank (4.865)	GP (4.776)
France	GP (5.769)	Bank (4.813)	OSN (4.522)
Germany	GP (5.246)	Bank (5.017)	OSN (4.126)
Russia	Bank (4.946)	OSN (4.866)	GP (4.002)
China	Bank (5.538)	OSN (5.381)	GP (4.772)
	USA UK France Germany Russia	USA Bank (5.197) UK OSN (4.931) France GP (5.769) Germany GP (5.246) Russia Bank (4.946)	USA Bank (5.197) GP (4.922) UK OSN (4.931) Bank (4.865) France GP (5.769) Bank (4.813) Germany GP (5.246) Bank (5.017) Russia Bank (4.946) OSN (4.866)

Looking at the results of the multiple regression analysis (MRA) in Table 25, the size of the coefficients suggests a highly significant higher level of Brand Trust in the OSN of users from Eastern Eurasian countries (0.577) and Anglo-Saxon countries (0.388) compared to the Brand Trust level of users from Central European countries. Table 26 shows a significant higher level of Brand Trust in their bank of users from Eastern Eurasian countries (0.284) as well as for users from Anglo-Saxon countries (0.139) compared to users from Central Europe whereas, Table 27 shows a highly significant lower level of Brand Trust towards their GP of Anglo-Saxon users (-0.646) and Eastern Eurasian users (-1.079) compared to users from Central Europe. However, level shift ranges due to cultural differences when working with scales may bias these results.

Looking at Table 17, the delta of the Brand Trust index score of the OSN and the Brand Trust index score of the GP is highly significant negative in the USA (-0.191), France (-1.284) and Germany (-1.191) but significant positive in the UK (0.149) and in Russia (0.795) and highly significant positive in China (0.686). The size of the scores (Table 16) suggests users in France have the highest level of Brand Trust in their GP, followed by Germany and the USA whereas, users from Russia have a higher level of Brand Trust in their OSN than in their GP followed by China and the UK. This is a remarkable result: In UK, Russia and China users have more Brand Trust in their OSN than in their GP. The delta of the Brand Trust index score of the OSN and the bank is highly significant in the USA (-0.439), France (-0.299), Germany (-0.925) and China (0.686) but not significant in the UK (0.071)

and in Russia (-0.064). The size of the delta scores suggest that users have the relatively highest level of Brand Trust in their bank (versus their OSN) in Germany, followed by the USA, France and China. In Russia and UK users have a similar level of Brand Trust in their OSNs as in their bank. The delta score of GP and bank is highly significant negative in the USA (-0.249), the UK (-0.079) and in China (-0.846) and significant negative in Russia (-0.859). France (0.985) and Germany (0.266) have a highly significant positive difference. The size of the delta scores imply users in Russia have the relatively highest level of Brand Trust in their bank followed by China and the USA whereas, users from France having the highest level of Brand Trust in their GP followed by Germany and in the UK users have a very similar level of Brand Trust in their bank and in their GP.

Table 17²²: Differences of Brand Trust Index Scores by Country (\triangle AM)

	USA	UK	FR	GER	RUS	CN
OSN vs GP	-0.191**	0.149*	-1.284**	-1.191**	0.795*	0.686**
OSN vs Bank	-0.439**	0.071	-0.299**	-0.925**	-0.064	-0.16**
GP vs Bank	-0.249**	-0.079	0.985**	0.266**	-0.859*	-0.846**

Users have a higher level of Brand Trust in GPs/doctors than in their OSN in the USA, France and Germany but in the UK, Russia and China users have a higher level of Brand Trust in their OSN than in their GP. Users have a higher level of Brand Trust in banks than in their OSN in the USA, France, Germany and China, but in the UK and in Russia, users have a similar level of Brand Trust in their OSN than in their bank. In a second step, we divide the sample into three groups as follows; Anglo-Saxon countries (AS), Central European Countries (CE) and Eastern Eurasian countries (EE).

As can be seen in Table 18, the negative difference of the Brand Trust index score of the OSN and the GP is not significant in Anglo-Saxon countries (-0.037), whereas the negative difference is highly significant in Central European countries (-1.248). In Eastern Eurasian countries we find a highly significant positive difference (0.744). Results suggest, that users from Central European countries have a higher level of Brand Trust in their GP than in their OSN however, in Eastern Eurasian countries users have a higher level of Brand Trust in their OSN than in their GP. Anglo-Saxon users show fairly similar Brand Trust levels. This

²² Missing values excluded list-wise. N=4,094

^(**) p-Value \leq .01; (*) p-Value \leq .05; () not significant, p-Value > .05 level

is a noteworthy result; Eastern Eurasian countries have more trust in their OSN than in their GP.

The negative difference between the Brand Trust index score of the OSN and the bank is highly significant in Anglos Saxon countries (-0.208) and in Central European countries (-0.538). In Eastern Eurasian countries the negative difference is significant (-0.11) but the small delta score indicates that users have a similar level of Brand Trust in their OSN than in their bank, whereas Anglo-Saxon and Central European users have a higher level of Brand Trust in their bank than in their OSN.

The delta score of GP and bank is highly significant negative in Anglo-Saxon countries (-0.172) and Eastern Eurasian countries (-0.853) but highly significant positive in Central European countries (0.711) resulting in users having a higher level of Brand Trust in their bank than in their GP in Anglo-Saxon countries and Eastern Eurasian countries, whereas in Central European countries users have a higher level of Brand Trust in their GP than in their bank. H1a. must be regarded as true; In collectivistic countries Russia and China users have a higher level of Brand Trust in OSNs than in their GPs. However, H1.b must be rejected as Eastern Eurasian users have more trust in their bank than in their OSN. Whereas, except for the UK, users from individualistic countries Germany, France and USA have a higher level of Brand Trust in their GP and their bank than in their OSN. Thus, H1.c and H1.d can be regarded as conditionally true; We can regard H1 as widely true.

Table 18²³: Differences of Brand Trust Index Scores by Cultural Groups

Brand Trust	R	egion (Δ AM)
	AS	CE	EE
OSN - GP	-0.037	-1.248**	0.744**
OSN - Bank	-0.208**	-0.538**	-0.11*
GP - Bank	-0.172**	0.711**	-0.853**

To validate H2, gender groups are built in the sample. As can be seen in Table 19, women ($\overline{X} = 4.832$) have a significantly higher level of Brand Trust in their OSN than men (\overline{X} = 4.659), also women (\bar{X} = 4.960) have a significantly higher level of Brand Trust in their GP than men ($\overline{X} = 4.880$). However, men ($\overline{X} = 5.066$) have slightly higher level of Brand Trust in their bank than women ($\bar{X} = 5.054$). As can be seen in Table 20, the difference of the Brand Trust index score of the OSN and the Brand Trust index score of the GP is highly significant negative for males (-0.302) and females (-0.168). Likewise, the delta score of OSN and bank is highly significant negative for males (-0.383) and females (-0.206). The delta score of GP and bank is significant negative for males (-0.082) but not significant for females (-0.038). The sizes of the delta scores indicate that both gender groups have a similar level of trust in their GP and in their bank. Looking at Table 25, the coefficient of Gender (0.170) and the pvalue (< 0.01) approves that women have a (highly) significantly higher level of Brand Trust than men; However, Table 26 and Table 27 do not approve a significant influence of Gender on the Brand Trust levels of the GP and the Bank. H2.b must therefore be regarded as false. Thus, H2 must be regarded as widely true. Women have a higher level of Brand Trust in their OSN (H2.a) than men, but a similar level of Brand Trust than men in their GP (H2.b) and in their bank (H2.c)

Table 19²⁴: Brand Trust Index Scores by Gender

	Male	Female
OSN	4.659**	4.832**
GP	4.880*	4.960*
Bank	5.066	5.054

²³ AS = Anglo-Saxon countries USA and UK

Missing values excluded list-wise. N=4,094

CE = Central European countries Germany and France

EE = Eastern Eurasian countries Russia and China

²⁴ Missing values excluded list-wise. N=4,094 (**) p-Value ≤ .01; (*) p-Value ≤ .05; () not significant, p-Value > .05 level

Table 20²³: Differences of Brand Trust Index Scores by Gender

	Gender (∆ AM)		
	male	female	
OSN - GP	-0.302**	-0.168**	
OSN - Bank	-0.383**	-0.206**	
GP - Bank	-0.082*	-0.038	

To validate H3, age groups are built in the sample as follows; younger than 30 years, 30-49 years and 50 years and older. As can be seen in Table 21, the age group < 30 years (\overline{X} = 5.249) holds the highest Brand Trust index score in the OSN followed by the age group 30-49 years (\overline{X} = 4.727) and the age group \geq 50 years (\overline{X} = 4.200). The age group \geq 50 years (\overline{X} = 5.255) holds the highest Brand Trust index score in their GP/doctor, followed by the age group 30-49 years (\overline{X} = 4.835) and the age group < 30 years (\overline{X} = 4.718). Likewise, the age group \geq 50 years (\overline{X} = 5.192) holds the highest Brand Trust index score in their bank, followed by the age group 30-40 years (\overline{X} = 5.063) and the age group < 30 years (\overline{X} = 4.918). The differences between all the age groups are highly significant²⁵.

As can be seen in Table 22, the highly significant positive delta score of OSN versus GP in the age group < 30 years (0.485) indicates young users to have more trust in their OSN than in their GP compared to the highly significant negative delta score in the age group 30-49 years (-0.179) and to the highly significant negative difference in the age group 50+ years (-1.149). Older users have more Brand Trust in their GP than young users in comparison to their GP. Likewise, the highly significant positive delta score of OSN and bank in the age group < 30 years (0.352) shows young users have more Brand Trust in their OSN than in their bank whereas, the middle age group 30-49 years (-0.287) and the oldest age group \geq 50 years (-1.043) show highly significant negative scores and thus have higher levels of Brand Trust in their bank than in their OSN. Looking at Table 25, the highly significant negative impact of Age Group 50+ (-0.944) and Age Group 30-49 (-0.456) compared to the youngest Age Group (< 30) underline the results: Younger users have a higher level of Brand Trust in their OSN than older users. As can be seen in Table 26, the highly significant coefficients of Age Group 50+ (0.341) and Age Group 30-49 (0.146) confirms a higher level of Brand Trust of older users in their bank compared to younger users. As can be seen in Table 27, the users of the Age Group 50+ (0.323) have a highly significantly higher level of Brand Trust in their GP

²⁵ Table 29 on p.79 in Appendix

than users of the Age Group < 30, the Age Group 30-49 however does not differ significantly from the youngest group of users. This is a notable result: Young users have more Brand Trust in their OSN than in their GP (H3.a) and in their bank (H3.b); Whereas older users have a higher level of Brand Trust in their GP (H3.c) and in their bank (H3.d) than in their OSN. Thus, H3 must be considered as true.

Table 21²⁶: Brand Trust Index Scores by Age Groups

		Age Groups	
	< 30 years	30-49 years	\geq 50 years
OSN	5.249	4.727	4.200
GP/doctor	4.718	4.835	5.255
Bank	4.918	5.063	5.192

Table 22²⁶: Differences of Brand Trust Index Scores by Age Groups

	Age Groups (∆ AM)			
	< 30 years	30-49 years	\geq 50 years	
OSN - GP	0.485**	-0.179**	-1.149**	
OSN - Bank	0.352**	-0.287**	-1.043**	
GP - Bank	-0.134**	-0.109**	0.106*	

To validate H4, the Brand Trust index scores of the educational level are built²⁷. As can be seen in Table 23, the high educational level group holds the highest Brand Trust index score for OSN ($\bar{X}=4.823$), followed by the medium educational level group ($\bar{X}=4.750$) and the low educational level group ($\bar{X}=4.556$). The differences between the low and the high educational groups is highly significant and the difference between the low and the medium educational level groups is significant; Whereas the difference between the medium and the high educational group is not significant²⁸. The low educational level group ($\bar{X}=5.387$) holds the highest Brand Trust index score of the GP/doctor, followed by the medium educational level group ($\bar{X}=5.016$) and the high educational level group ($\bar{X}=4.680$). The high educational level group ($\bar{X}=5.191$) holds the highest Brand Trust index score of the bank, followed by the medium educational level group ($\bar{X}=5.004$) and the low educational level

²⁶ Table 21 and 22: Missing values excluded list-wise. N=4,094

Table 22: (**) p-Value \leq .01; (*) p-Value \leq .05; () not significant, p-Value > .05 level

²⁷ Further details on the educational level per country can be found in the Sample Description, p.11

²⁸ Table 29 on p.79 in Appendix

group ($\bar{X} = 4.817$). As can be seen in Table 24, there are highly significant negative delta scores of OSN and GP for low (-0.769) and medium (-0.309) educational levels however, there is a non-significant positive difference for high educational levels (0.053). Results suggest that while users with lower education express significantly higher trust towards their GP than to OSNs, users with high educational background show similar Brand Trust levels of OSN and their bank and even a higher Brand Trust level in their OSN than in their GP/doctor. It seems that Brand Trust in the OSN increases with the level of education while Brand Trust in the GP decreases with the level of education. The differences of the Brand Trust index scores of the OSN and Brand Trust index scores of the bank are highly significant negative across all educational levels with scores decreasing in size going from low educational level (-0.210) to medium educational level (-0.274) to high educational level (-0.335). As can be seen in Table 25, High Education and Middle Education do not approve a significant difference compared to the reference (Low Education). As can be seen in Table 26, the highly significant difference between the coefficient of High Education (0.232) and Middle Education (0.139) compared to the reference approve users with a higher educational level to have more Brand Trust in their bank than users with a lower educational level. As can be seen in Table 27, High Education has no significant effect compared to the reference whereas, there is a significant positive effect of Middle Education compared to Low Education. H4.a must be regarded as false; Users with a high educational level have a similar level of Brand Trust in their OSNs than in their GPs. Also, H4.b must be regarded as false; Users with a high educational level have more trust in their banks than in their OSNs; Whereas, users with a lower educational level have a higher level of Brand Trust in their GP/doctor (H4.c) and in their bank (H4.d) compared to their OSN. H4 must be regarded as only partly true.

Table 23²⁹: Brand Trust Index Scores by Educational Level

Educational Level

	Low	Medium	High
OSN	4.556	4.750	4.823
GP/doctor	5.387	5.016	4.680
Bank	4.817	5.004	5.191

Table 24²⁹: MRA; Differences of Brand Trust Index Scores by Educational Level

Educational Level (\triangle AM)

	Low	Medium	High
OSN - GP	-0.769**	-0.309**	0.053
OSN - Bank	-0.210**	-0.274**	-0.335**
GP - Bank	0.560**	0.036	-0.387**

Table 25²⁹: MRA; Effects of Age, Education and Region on Brand Trust in OSN

	В	β	Ŗ²
			0.110
Constant	4.768**		
Age < 30 (ref)	-	-	
Age 30-49	-0.456**	-0.161	
Age 50+	-0.944**	-0.302	
Low Education (ref)	-	-	
Middle Education	0.084	0.030	
High Education	-0.023	-0.008	
CE (ref)	-	-	
AS	0.388**	0.138	
EE	0.577**	0.179	
Gender	0.170**	0.061	

Gender coded: 0 = male, 1 = female

²⁹ Table 23, 24 and 25: Missing values excluded list-wise. N=4,094

Table 24 and 25: (**) p-Value \leq .01; (*) p-Value \leq .05; () not significant, p-Value >.05 level AS = Anglo-Saxon countries USA and UK

CE = Central European countries Germany and France

EE = Eastern Eurasian countries Russia and China

Table 26³⁰: MRA; Effects of Age, Education and Region on Brand Trust in Bank

	В	β	$\mathbf{\bar{R}^2}$
			0.021
Constant	4.614**		
Age < 30 (ref)	-	-	
Age 30-49	0.146**	0.054	
Age 50+	0.341**	0.114	
Low Education (ref)	-	-	_
Middle Education	0.139**	0.050	
High Education	0.232**	0.086	
CE (ref)	-	-	
AS	0.104*	0.036	
EE	0.284**	0.099	
Gender	-0.002	-0.001	

Table 27³⁰: MRA; Effects of Age, Education and Region on Brand Trust in GP

	В	β	$ar{\mathbf{R}^2}$
			0.095
Constant	5.424**		
Age < 30 (ref)	-	-	_
Age 30-49	0.041	0.013	
Age 50+	0.323**	0.092	
Low Education (ref)	-	-	
Middle Education	-0.123*	-0.038	
High Education	-0.065	-0.020	
CE (ref)	-	-	_
AS	-0.646**	-0.193	
EE	-1.079**	-0.321	
Gender	0.074	0.023	

5.5 Conclusion

We have found in Chapter 3 that users from individualistic countries are guided more by Brand Trust than users from collectivistic countries and we can replicate these findings to some extent although Hofstede's framework of national culture (1980) appears to be weaker in the context of trust in social institutions healthcare providers and banks; In collectivistic countries users have a higher level of Brand Trust in their OSN than in their GP and a similar

 $^{^{30}}$ N = 5 990

^(**) p-Value \leq .01; (*) p-Value \leq .05; () not significant, p-Value > .05 level

AS = Anglo-Saxon countries USA and UK

CE = Central European countries Germany and France

EE = Eastern Eurasian countries Russia and China

Gender coded: 0 = male, 1 = female

level of Brand Trust in their OSN as in their banks, whereas individualistic countries have a higher level of Brand Trust in their GPs and in their banks as in their OSN. However, looking at the results country by country we find that in USA, France and Germany users have a higher level of Brand Trust in GPs/doctors as in their OSNs but in the UK and in collectivistic countries Russia and China users have higher levels of Brand Trust in their OSN as in their GP. These findings are likely to reflect low trust levels in healthcare providers in Russia and China and remarkably, even so in the UK. Previous research also found low trust levels in healthcare providers in Russia and China (Bennetts, 2016; Jing et al, 2013) however, some authors found British patients have high levels of trust in doctors (Coulter, 2005; Tarrant et al, 2003).

Furthermore, we found that in USA, France, Germany and China users have a higher level of Brand Trust in their bank as in their OSN yet, in the UK and in Russia, users have a similar level of Brand Trust in their OSN as in their bank.

Women have a higher level of Brand Trust in their OSN and in their GP as men and these findings are in line with previous research which found that women are more relationally interdependent as men and thus, have higher levels of trust if they share relationship connections (Maddox & Brewer, 2005). OSN companies should allocate their marketing budget in favour of women to benefit from higher user activities and more content creation. However, OSN companies should allocate their budgets for trust campaigns for men as they are lacking trust in OSNs compared to women.

Additionally, we found, that older users have more Brand Trust in their bank and in their GP as young users, whereas young users (< 30 years) have more trust in their OSN as in their GP and in their bank, and these findings highlight the role of Brand Trust among younger users as a driver for success for OSNs.

Furthermore, users with a high educational level have a slightly (yet not significantly) higher level of Brand Trust in their OSNs as in their GPs, but have more Brand Trust in their banks as in their OSNs. In Chapter 3.5 we concluded that for trust campaigns, managers should allocate their budgets in favour of Western markets and we reckon that some countries, such as France, Germany and the USA offer greater potential than other countries, e.g. the UK.

Furthermore, trust campaigns are less likely to positively affect older users since they are lacking trust in OSNs compared to young users. Likewise, users with low and medium educational level are less likely to be positively affected by trust campaigns since they are lacking trust compared to users with a high educational level.

6. Research Limitations

The findings of our three studies are expected to be predominantly robust given the effort spent on the data collection process wherein OSN users from six countries were surveyed to obtain an aggregated data set of N=5,990 completed interviews via professional online access panels, exclusively used for market research purposes. As previously discussed, our findings are largely in line with our theoretical considerations. However, as in many studies further research is needed to replicate and extend our findings.

Our results show, that trust is an important driver for the use of OSN companies. In this context, Brand Trust can be seen as an emotional connection between the user and the OSN. In our studies we examined the relationship between attitudinal construct Brand Trust and behavioural construct Behavioural Trust and found a strong positive relationship. However, we did not test for additional drivers on Behavioural Trust. Further research should therefore investigate other drivers of Behavioural Trust, e.g. technology-related innovations, relevant differentiation, or network effects of users. It would be useful to look at other attitudinal relationship variables identified in the domain of other business markets and examine them in the context of OSNs, e.g. brand commitment or brand loyalty (Chaudhuri, 2005).

We found differences in the Brand Trust levels of users; Women have higher levels of Brand Trust in their OSN than men, young users have higher levels of Brand Trust in their OSN than older users and users with a high educational level have more Brand Trust in their OSN than users with a lower educational level. As illustrated in our previous chapters, Brand Trust is of vital importance for users of OSNs. For this reason, knowing what influences the users' Brand Trust in an OSN is key to successful marketing and should be explored in further research.

Additionally, we examined the relationship of Brand Trust, Behavioural Trust, age, gender, monthly household net income, private usage, usage history and Usage Intensity in OSNs and found a strong positive correlation. Multi-homing, educational level and the degree to which users have met each other in real life did not show significant correlation with Usage Intensity in OSNs. However, we did not test for other drivers of Usage Intensity and thus, future research should examine other drivers of Usage Intensity in OSNs, e.g. the need for

new friends, the need for social self-portrayal, or the need for data privacy (Wirtz; Göttel & Daiser, 2017). Behavioural Trust and Usage Intensity can be seen as critical determinants of success for OSNs as we believe they reflect the dimension of content creation and content consumption. Additionally, other potential determinants of an OSN's success should be examined, e.g. user satisfaction.

Furthermore, the usual disclaimer of causality applies in our studies as in many studies using regression analysis with cross sectional survey data in contrast to studies with experimental design. We found that Brand Trust leads to Behavioural Trust (usage) and Usage Intensity. However, this does not mean that Behavioural Trust and Usage Intensity in turn do not create Brand Trust. Thus, a reciprocal effect is thinkable.

We developed our cultural hypotheses using Hofstede's dimension of Individualism versus Collectivism and even though our theses are supported in principal, further research could attempt to investigate cultural differences of users which are not built on the concept of national culture. Different (national) cultures are organized by different logics whereas, individual differences mean something different within each culture (Leung & Cohen, 2011). Although some authors suggest that communication online is culturally contingent (Feil et al, 2006), differences among users who share the same nationality such as individual beliefs or attitudes towards social media advertising should shed deeper light on social network communication across cultures (Kamal & Chu, 2012) to examine managerial and theoretical implications for OSN companies. Our studies showed that OSNs operate on the concept of user content creation and in Facebook, QQ or Bkontakte, content creation has strong ties with users' level of self-disclosure (users disclose photos and personal information). Hence, further research should investigate different cultures of self-disclosure within OSN users.

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8. Appendix

1. Additional Tables

Table 28: PCA; Brand Trust (Chaudhuri & Holbrook, 2001) in Online Social Networks

Aspiration Level Communalities ≥ 0.5 Range of Items Cronbach's Bartlett KMO extracted Alpha Total > % of No of \geq 0.7 ≤ 0.05 ≥ 0.5 Min. Max. 1 Variance Comp. USA Facebook 979 < 0.001 0.829 1 3.743 74.865 0.626 0.825 0.915 1 Facebook UK 812 < 0.001 0.841 3.629 72.574 0.800 0.637 0.904 1 DE Facebook 550 < 0.001 0.821 3.459 0.513 0.783 0.887 69.183 1 FR < 0.001 0.800 3.103 0.644 0.846 Facebook 845 62.057 0.613 1 RUS 3.700 0.782 Bkontakte 724 < 0.001 0.789 73.995 0.669 0.806 CNQQ 801 < 0.001 0.819 3.720 74.406 0.720 0.770 0.914

Table 29: PCA; Factor Loadings Brand Trust Items (Chaudhuri & Holbrook, 2001)

			Factor Loadings Brand Trust Items								
		_	(1)	(2)	(3)	(4)	(5)				
		N	I fully and completely trust '	I have a lot of experience with	Iam well informed about	By comparison with other providers, I know a lot about '	' is reliable				
USA	Facebook	979	0.791	0.907	0.908	0.874	0.840				
UK	Facebook	812	0.895	0.878	0.895	0.859	0.826				
DE	Facebook	550	0.716	0.871	0.885	0.882	0.792				
FR	Facebook	845	0.786	0.777	0.803	0.790	0.783				
RUS	Bkontakte	724	0.837	0.881	0.884	0.878	0.818				
CN	QQ	801	0.863	0.878	0.857	0.866	0.849				

 Table 30: PCA; Behavioural Trust Dimensions

Communalities ≥ 0.5		Bartlett	Bartlett KMO		Variance		Cronbach's Alpha
			Aspiration L	evel			
Range of Ite		≤ 0.05 ≥ 0.5		> 0.7	Per		> 0.7
	Iax. 800	< 0.001	0.855	≥ 0.7	Component	Model	≥ 0.7
		1 - Sexual preference	s published	0.685			
Activity Privacy		2 - Religion publishe	d	0.731	62.368%		
		3 - Political attitude I	published	0.828			
		1 - Photos of your far	mily or partner published	0.864		65.826%	
Visual		2 - Photos of you pub	olished	0.803	71.831%		
Privacy	,	3 - Photos of acquain	tances published	0.861	/1.65170		0.844
		4 - Publish personal	video recordings	0.721			
	1 - Gender published			0.794			
Personal	l	2 - Age/birthday published		0.809	59.2200/		
Privacy	,	3 - Relationship statu	0.708	58.339%			
		4 - Place of residence	published	0.647			

N = 5,990

Table 31: Country Scores of National Culture Dimensions (Hofstede, 1980)

	USA	UK	FR	GER	RUS	CN
Power Distance	40	35	68	35	93	80
Individualism vs Collectivism	89	91	71	67	39	20
Masculinity vs Femininity	62	66	43	66	36	66
Uncertainty Avoidance	46	35	86	65	95	30
Long Term vs Short Term Orientation	26	51	63	83	81	87
Indulgence vs Restraint	68	69	48	40	20	24

Table 32³¹: Significances in Differences of Brand Trust in OSN Index Scores

Education	Low	Medium	High
Low		+	++
Medium	+		n.s.
High	++	n.s.	
	ı		
Age	< 30 years	30-49 years	\geq 50 years
< 30 years		++	++
30-49 years	++		++
\geq 50 years	++	++	
Region	AS	CE	EE
AS		++	
CE	++		++
EE	++	++	

31 USA: N = 962; UK: N = 796; GER: N = 501; FR: N = 813; CN: N = 482; RUS: N = 540 Positive sign of coefficients. (++) p-Value ≤ .01; (+) p-Value ≤ .05; (n.s.) not significant, p-Value > .05 level AS = Anglo-Saxon countries USA and UK CE = Central European countries Germany and France

EE = Eastern Eurasian countries Russia and China

2. Questionnaire

Intro

Dear Participant,

The E-business faculty of the University of Magdeburg is currently conducting a study on the subject of "trust".

We would like to interview you on this subject. General advice on replying to the questionnaire:

Please answer all questions on the basis of your personal assessment. There are no "right" or "wrong" answers. Only your personal opinion and assessment matter! To reply to the questions, please use the answer scale provided. The questionnaire takes about 10 minutes. We can give an assurance that all your statements are treated anonymously and confidentially. Your statements exclusively serve statistical and analytical purposes.

Have fun!

1. Are you registered on one of the listed social networks? [multiple selection] - insert list-

☐ Facebook	f	□ myspace	Myspace.
☐ Wer-kennt-wen	war-kennt-wen.de	□ studiVZ	Studi VZ DAS STUDMEREZCHIIS
□ meinVZ	Firmein/Z	□ schülerVZ	** schüler VZ
☐ Platinnetz	Platinnetz DAS PORTAL FOR JUNGGEBLIEBENE	☐ meineleute.de	meine cute de Deutschland
☐ Schueler.CC	Schueler.cc community center made by yourself	□ aka'aki	OKOOKI. die entdeckung deines lebens
☐ Lokalisten.de	Cokalisten.de	□ students.de	students.de
☐ StayFriends	StayFriends® Schulfreunde wiederfinden	☐ Feierabend.de	Feier bend. de webtreff für die besten Jahre
□ hi5	Im5	☐ Friendster	3
☐ Other network, namely:		☐ Other network, namely:	
☐ I am not registered in any social network.	[Screen-out.]		

2. Please mark with a cross the amount of time you spend per week in the relevant networks.							
This includes the time when you are logged onto the networks, even if you are doing other things							
at the same time. Please bear in mind: there are no "right" or "wrong" answers. Only your personal							
opinion and assessment matter.							

Top 2-Boxes go to Question 3]	f	#meinVZ	StudiV DAS STUDIVIDAZIZADA	- Emperes	wer-kennt-wen.d	XING *	C okalisten.de
30 minutes per week or less							
1 hour per week							
2 hours per week							
3 hours per week							
4 hours per week							
5 hours per week							
6-10 hours per week							
11-15 hours per week							
16-20 hours per week							
21 hours per week or more							

3. How do you rate [Vendor A]? Please bear in mind: there are no "right" or "wrong" answers. Only your personal opinion and assessment matter.

	Fully applicable	Mostly applicable	Tends to be applicable	Partly applicable	Tends not to be applicable		Not applicabl e at all
	(3)	(2)	(1)	(0)	(-1)	(-2)	(-3)
I have a lot of experience with [Vendor A].							
I fully and completely trust [Vendor A].							
I am well informed about [Vendor A].							
By comparison with other providers, I know a lot about [Vendor A].			0				
[Vendor A] is reliable.							

4. How do you rate [Vendor B]? Please bear in mind: there are no "right" or "wrong" answers. Only your personal opinion and assessment matter.

	Fully applicable	Mostly applicable	Tends to be applicable	Partly applicable	Tends not to be applicable	Mostly not applicable	Not applicabl e at all
	(3)	(2)	(1)	(0)	(-1)	(-2)	(-3)
I have a lot of experience with [Vendor A].							
I fully and completely trust [Vendor A].							
I am well informed about [Vendor A].							
By comparison with other providers, I know a lot about [Vendor A].							
[Vendor A] is reliable.							

5. The next question is concerned with the trusting relationship that you have with your GP and your principal bank. How do you personally rate the trusting relationship that you have with your GP and your principal bank? If you don't have a GP, simply use the specialist or general practitioner you have visited most frequently in the last 5 years. Please bear in mind: there are no "right" or "wrong" answers. Only your personal opinion and assessment matter.

5.1. [rotate items]

	Fully applicable	Mostly applicable	Tends to be applicable	Partly applicable	Tends not to be applicable	Mostly not applicable	Not applicabl e at all
	(3)	(2)	(1)	(0)	(-1)	(-2)	(-3)
I fully and completely trust my GP.							
I have a lot of experience with my GP.							
By comparison with other doctors, I know a lot about my GP.							
I am well informed about my GP.							
My GP is reliable.							

5.2. [rotate items]

	Fully applicable	Mostly applicable	Tends to be applicable	Partly applicable	Tends not to be applicable	Mostly not applicable	Not applicabl e at all
	(3)	(2)	(1)	(0)	(-1)	(-2)	(-3)
I fully and completely trust my principal bank.							
I have a lot of experience with my principal bank.							
By comparison with other doctors, I know a lot about my principal bank.							
I am well informed about my principal bank.							
My principal bank is reliable.							

6.a The next question is concerned with your user behaviour in social networks. Please reply on whether and how frequently you provide the following data when using social networks. Please indicate to what percentage the following statements are applicable to you.

[slide bar]	Applie s to 10% or less.	Applie s to 20% or less.	Applie s to 30% or less.	Applie s to 40% or less.	Applie s to 50% or less.	Applie s to 60% or less.	Applie s to 70% or less.	Applies to 80% or less.	Applies to 90% or less.	Applies to 100% or less.
I read the terms and conditions for [Vendor A] before my registration.		٥	۰	_		٥	٥			
I have actually met my contacts on [Vendor A].										
How many of your contacts on [Vendor A] can read all your information?				_	_	_		0	_	
I read the terms and conditions for [Vendor B] before my registration.										
I have actually met my contacts on [Vendor B].				_	_	_		0	_	
How many of your contacts on [Vendor B] can read all your information?				٥						

6.b The next question is concerned with your user behaviour in social networks. Please reply on whether and how frequently you provide the following data when using social networks. Please indicate to what percentage the following statements are applicable to you.

[slide bar]

	I always reveal this	I reveal this to 90% of the time	I reveal this to 80% of the time	I reveal this to 70% of the time	I reveal this to 60% of the time	I reveal this to 50% of the time	I reveal this to 40% of the time	I reveal this to 30% of the time	I reveal this to 20% of the time	I reveal this to 10% of the time	I never reveal this
	100%	90%	80%	70%	60%	50%	40%	30%	20%	10%	0%
Religion											
Relationship status											
Place of residence											
Age/birthday											
Photos of your family/partner uploaded, published, etc.											
Photos of you uploaded, published, etc.											
Photos of acquaintances uploaded, published, etc.											
Publish personal video recordings (e.g. via links)											
Gender											
Political attitude											
Sexual preferences											
Information of my salary											
Bank account data											

7.	T	he next	question	is concerned	with	your	user	conduct	in socia	l network	KS.	single	e sel	lectio	n
<i>,</i> •	-	IIC IICA	question	is concerned	. ** 1 (1)	your	usci	conduct	III SOCIA	I HELWOIL	7 D• [SILISI			CUIU

☐ less than six months
☐ between six months and a year
\Box one to two years
☐ more than 3 years

8. How do you use social networks? [single selection]	
☐ I only use social networks privately.	
☐ I predominantly use social networks privately.	
☐ I use social networks in equal measure, both privately and professionally.	
☐ I only use social networks professionally.	
☐ I predominantly use social networks professionally.	
9. How frequently have you used social networks in the last 3 months?	
☐ less often than once a week	
☐ one to three times a week	
☐ four to five times a week	
□ every day	
10. How frequently have you posted something in your network in the last 3 months?	
☐ less often than once a week	
☐ one to three times a week	
☐ four to five times a week	
□ every day	

11.	11. Which gender are you?								
	☐ Male	☐ Fema	ale						
12.	. How old are you?								
	☐ 14 - 19 years old	2 0 - 2	29 years old						
	☐ 30 - 39 years old	□ 30 - 39 years old □ 40-49 years old							
	□ 50 - 59 years old □ 60 - 69 years old								
	☐ 70 years old or mo	ore							
13.	. What is your level	l of educ	cation? Please indic	cate	your highest qualification on	dy.			
	☐ No qualification								
	☐ Secondary modern school certificate (grade 9)								
	☐ Secondary school certificate/ general certificate of secondary education (grade 10)								
	☐ University entrance qualification/ higher education entrance qualification (grade 12/13)								
	☐ University degree/ college of higher education degree (course of study)								
	□ Promotion								
14.	. How high is your 1	net mon	thly household inco	ome	?				
	☐ Up to 750 £		□ 751 to 1,500 £		☐ 1,501 to 2,000 £				
	□ 2,001 to 3,000 £		□ 3,001 to 4,000 £		□ 4,001 to 5,000 £				
	□ 5,001 £ and more		□ n/a						

That's all - Thank you!



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