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The school takes no responsibility for the methods used, results found and conclusions drawn."

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Best regards,	
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Ingrid Eieslan	
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# **Executive summary**

Adoption of new technologies have been of importance for researchers for a long time, and constructs are continuously being analyzed to better understand what makes consumers more likely to adopt. The use of social media technologies are still increasing, and consumers adopt and use more platforms simultaneously now than before. This paper seeks to provide new content to the literature of social media technology, by looking at how different construct affect consumer's intention to adopt new social media technologies. Being Always logged-in (ALI), wanting to achieve Return on Time (RoT) and having the Fear of Missing Out (FoMO) are phenomena in the marketing literature, which explains consumer behavior and their needs. This paper analyzes how these three phenomena influence the adoption of new social media technologies. It is also important to identify drivers that leads to consumers being always logged in on social media. To better understand the construct of ALI, the paper seeks to identify how Habits, FoMO and three different dimensions of Nudging, including Nudge Hygiene Factor, Motivational Nudges and Social Nudges influence ALI.

To fully understand how these construct influence each other, it is necessary to establish a model that both includes the drivers of ALI and the phenomena influencing Adoption. Our study is based on a qualitative research, where a survey is conducted, making it possible to empirically test the results.

The findings show that ALI, RoT and FoMO have a positive effect on Adoption of social media technology, meaning the phenomena does lead to increased likelihood of adoption. Habits positively influence ALI, which indicates that consumers using social media automatically are more likely to be always logged in. Having fear of missing out gave us opposite results, and does not lead to being always logged in on social media. The different dimensions of Nudging show that Nudge Hygiene Factor and Motivational Nudges have a positive effect on ALI, while Social Nudges does not. This indicates that people are influenced by their own motivation rather than significant others when it comes to using and reacting to nudges on social media.

## 1.0 Introduction

### 1.1 Importance of topics

The use of social technologies have increased in recent years, and number of social media users worldwide was 2.34 billion in 2016, an increase of 141% since 2010 (Statista, 2017). Social media can be explained as a group of websites and applications that is built on the technological foundations of the internet, which allow the creation and exchange of user generated content (Kaplan & Haenlein, 2010). Using social media is important for both consumers and firms, mainly because this is a platform where consumers can communicate with each other by sharing and discussing content. It allows companies at all sizes to communicate with consumers at a lower cost more efficiently (Kietzmann, Hermkens, McCarthy & Silvestre, 2011; Kaplan & Haenlein 2010). Number of users on social media is expected to grow, and is forecasted to be 2.95 billion in 2020. There has been a 36% increase in time spent on social media from Q3 2015 to the end of 2016 (Nielsen, 2016), and in 2015 consumers spent 127 minutes compared to 120 minutes in 2014 (Statistisk Sentralbyrå, 2016). Norwegians are on average using 2.6 social media accounts actively, with most time spent on getting information about what friends are doing and to look at other profiles, pictures and videos (Ipsos, 2016). With the increase in users on both Facebook, Twitter, Snapchat and Instagram the last years, we can expect the number of accounts per consumer to increase even further (TNS Gallup, 2015; Ipsos, 2016).

The increase in use of social media influences different aspects of consumer behavior, and consumer's awareness, attitudes, decision and evaluation towards companies and brands can be highly affected through and by social media (Mangold & Faulds, 2009). Consumers use various social media channels to collect information when making decisions, due to its easy access to information at any time (Mangold & Faulds, 2009). They are turning away from traditional sources of advertising, which has led to social media being perceived as more trustworthy regarding products and services (Mangold & Faulds, 2009). Consumers trust social media mostly because they can read friends and other people's recommendations of products and services, and not base their decisions mainly on traditional advertisements from companies (Nielsen, 2015). Marketing activities previously done by companies are now performed by consumers, which shows the importance

for companies to understand individual's behaviors and needs. When taking this into consideration companies can create benefits for both parts through the use of social media (Mangold & Faulds, 2009).

Previous research in the area of technology has tried to find out why people adopt new technologies. The Technology Acceptance Model (TAM) by Davis (1989) explains technology acceptance and user behavior, and the study found that innovational technology that are easy to use and useful is more likely to be adopted by consumers. Parasuraman (2000) tried a different approach when trying to explain why consumers adopt new technology, and developed the Technology Readiness Index, which was created to better understand the consumer's readiness to employ new technology. Together with Perceived Ease of Use and Perceived Usefulness, technology readiness was found to have a positive effect on the Adoption of new technology. Based on the study of Davis (1998) and Parasuraman (2000), Lin et al. (2007) presented technology readiness to be an antecedent of Perceived Ease of Use and Perceived Usefulness of new technology. Together, these constructs were found to influence consumer's intention to adopt new technology. Due to the increase in use of social media, Husa and Kvale (2009) applied the study of Lin et al. (2007), and investigated and identified the drivers of social media readiness among consumers, and how they would influence the attitude towards the interaction with firms in social media. It was clear that Perceived Ease of Use and Perceived Usefulness were important drivers of attitude towards interacting in social media.

The study of Husa and Kvale (2009) explains variables that have an effect on why consumers adopt social media technologies, but does not show how consumer's behavioral patterns affect intention to adopt. 'Return on Time' (RoT), 'Always logged-in' (ALI) and 'Fear of Missing Out' (FoMO) are important constructs that can affect consumer's behavior. RoT and ALI were previously defined as consumer trends, but are now developed as clear phenomena when trying to explain consumer's behavior. FoMO is a phenomenon working in tandem with ALI, and includes being constantly afraid of missing out on something important or being excluded from social circles (Andreassen, Lervik-Olsen & Calabretta, 2015). RoT refers to people wanting to fill their time with the optimal number of self-fulfilling experiences and increase their subjective well-being while ALI implies that some

people has the need to access information and services at any time wherever they are, and are always connected to the internet (Andreassen et al., 2015). Social media is a convenience service, meaning it can help consumers free up time and spend it on self-fulfilling experiences (Andreassen et al., 2015). Therefore, we believe people wanting RoT are likely to adopt social media technologies, as social media can make people more effective and efficient, giving consumers time to spend on experiences they enjoy, which enhances well-being (Andreassen et al., 2015). Both RoT and ALI can influence behaviors prevalent among consumers as they are well-established phenomena explaining consumer needs, and are expected to have a positive effect on people's attitude and buying behavior in regard to goods and services (Andreassen et al., 2015).

The increased mobility and intensity of consumer's life in developed countries has led to enhanced attention towards intangible objects like social media, due to the easy access to information and services (Andreassen et al., 2015). The literature shows that consumers feel the need to be available at all times, leading to a state of constant connectivity (Wajcman & Rose, 2011). Being in this state of mind is found to make people more available and efficient, which benefits consumers both at work and in their spare time. Feeling the lack of connectivity means not being able to be always logged in, which may lead to FoMO (Kolb, Caza & Collins 2012). Being afraid of missing out on activities and things of interest can increase time spent on social media, as social media let people stay connected with what others are doing at all times (Andreassen et al., 2015). Due to the increase in use of social media, ALI can become a habit among consumers. When people are logged in on social media more frequently, the habit strength increases, leading to more time spent on these platforms (Ang, 2016). The increase in use of social media makes it relevant to investigate whether drivers like Habits and FoMO have a positive effect on ALI.

Another interesting dimension is Nudging, which is a relatively new phenomenon in the social media and marketing literature. Nudges in the social media context influence consumer's behavior without limiting or forbidding other choices (Leonard, 2008). On social media, nudges can include instant messages and notifications consumers receive, that do not force, but aim to change or lead to a certain behavior (Wang, Leon, Scott, Chen, Acquisti & Cranor, 2013; Leonard,

2008). As nudges can guide consumers towards a certain behavior, in the manner of responding or using nudges, it can lead to increased time spent on social media. This was also presented in Quan-Haase and Young's (2010) study, where people's motivation for using nudges was found to influence ALI, as nudges reminds them to be logged in on social media. Social influence can also affect the use of nudges in the social media context (Shen, Cheung, Lee & Chen, 2011; Dholakia, Bagozzi & Pearo, 2004). If consumers believe significant others expect them to use and react to nudges, they are more likely to do so (Glass & Li, 2010). This indicates that social norm, or social nudges can act as an antecedent for being always logged in. This clearly shows that nudging consists of more than one dimension, that must be analyzed separately to better understand how it influence ALI. It is interesting and important to see how these nudges affect individual's time spent on social media.

In addition to motivation and social nudges, there are some factors that need to be in place for Nudging to work in the social media context. Internet accessibility is necessary to be logged in on social media, and to receive and use nudges. It has become easier to be online, and almost all Norwegians have access to internet and smartphones (Interbuss, 2016), making it easier for consumers to communicate with each other on social media. The convenience of communicating and using social media can influence consumers being always logged in, due to their access to internet wherever they are. Therefore, it is important to include a third dimension of Nudging, called Nudge Hygiene Factors, including consumer's access to internet, being a prerequisite for using social media. Based on this, Nudging was divided into a threefold construct, consisting of the dimensions; Nudge Hygiene Factor, Social Nudges and Motivational Nudges. These will be investigated separately to see how each dimension affect ALI, as well as analyzed together to give us a greater understanding of the construct as a whole.

By gathering these constructs together in a model, we will gain a good understanding of factors affecting adoption of social media technologies beyond literature in the field. No previous research has taken ALI and RoT into consideration when investigating what leads to consumers adopting new social media technology, nor looked specifically at how different antecedents affect these phenomena. Due to ALI, RoT and FoMO's increased presence in the consumer behavior literature, it is reasonable to believe the findings from this study will be

highly valuable and relevant. Companies wanting to interact with consumers on social media should be aware of how ALI, RoT and FoMO affect Adoption of new social media technology, to easier create sustainable innovations that meet customer's needs.

#### 1.2 Research question

Based on the gap in the social media technology field our research question will answer the following question:

What are the drivers of 'Always logged-in' and how do the behavior 'Always logged-in', the need for 'Return on time' and having the 'Fear of Missing Out' affect consumer's Adoption of social media technology?

The purpose of the study can be seen as fourfold: 1) identify the drivers of ALI, 2) understand how ALI affect Adoption of social media technology, 3) investigate how RoT is influenced by ALI and how ALI is influenced by RoT, as well as how RoT affects Adoption of social media technology, and 4) identify how FoMO affect Adoption of social media technology.

The objective of this study is to understand how the consumer phenomena ALI, RoT and FoMO are affecting the Adoption of social media technology, and therefore the main theoretical topics in our thesis are these consumer phenomena and Adoption of social media technology. In addition, we will look into antecedents explaining ALI, including consumer Habits, FoMo and Nudges. Especially Nudge's, including three different dimensions will be of high importance, as this is a relatively new construct becoming more frequently present in social media. Identifying the antecedents of ALI is important to clearly understand what leads to consumers being always logged in. There are reasons to believe that ALI, RoT and FoMO can influence consumer's Adoption of social media technology, as all three phenomena can explain consumers' needs and behavior. This indicates that ALI, RoT and FoMO explains consumers' current behavioral patterns, and it should be investigated how they influence the Adoption of social media technology.

## 2.0 Literature review

## 2.1 Adoption of social media technology

Previous research has explained different theories that tries to explain and predict adoption of social media technology (Lin et al., 2007; Eroglu, Machleit & Davis, 2001; Flanagin & Metzger, 2001). Three approaches will be presented, to enhance the understanding of the underlying factors affecting social media adoption. Two of the approaches, the S-O-R paradigm and social presence and media richness theory will be used as theories to increase our knowledge in the field, to give us an overview of possible antecedents for adoption. The S-O-R paradigm explains how different types of involvement from consumers, situation and decision process interact, while social presence and media richness is about the medium's attributes, and how the different communication parts can influence each other based on mediums (Slama & Tashchian, 1987; Flanagin & Metzger, 2001). To better understand all factors that can influence the adoption of social media technology, it is important to know how the cognitive and affective processes influence consumer's decision making, and how different mediums affect intention to adopt. The TRAM model is found to be most relevant in answering our research question, as it is acknowledged in the literature and found to be suitable to use in the social media context (Husa & Kvale, 2009). Therefore, it will be applied further in the study.

### 2.1.1 Environmental cues influence on adoption

The S-O-R paradigm is a widely used model, due to its rich explanation of how decision processes are explained by different types of involvement (Slama & Tashchian, 1987). The model presents how certain atmospheric elements influence the affective and cognitive internal states, which leads to either approach or avoidance response to the experience (Donovan, Rossiter, Marcoolyn & Nesdale, 1994). This means that consumer's experience arousal can be positively related to approach behaviors in pleasant environments, and negative related in unpleasant environments (Donovan et al., 1994). The model describes how people receive information about a product, before processing the information, which in the end influence behavioral intention (Wang & Chang, 2013). In the social media context, the S-O-R framework can be used to describe how site features in social media affects customer's evaluation of their co-creation experiences, and how this again

affects their intention to participate in co-creation activities (Zhang, Wang & Wu, 2015). The framework is found to be suitable in the social media context due to its ability to explain consumers' internal reactions and behavioral responses to environmental cues. It is also a structured way to examine how the features of social media sites affects consumer's evaluations of their co-creation experiences and intention to participate in co-creation activities in the future (Zhang et al., 2015).

The first part of the S-O-R paradigm is *stimulus*, including high and low task-relevant information (Eroglu et al., 2001). Stimulus can be explained as all the cues visible and audible to consumers (e.g. information or advertising), which can be seen as high task-relevant cues, helping consumers in making a decision (Mollen & Wilson, 2010; Peters, Chen, Kaplan, Ognibeni & Pauwels, 2013). Fang (2014) presented cues in social media stimuli to include argument strength, recommendation rating, source expertise and task and social attraction. These are all cues that are visible to the consumers using social media, and naturally social media lack some of the cues present in physical stores, like temperature and smell (Fang, 2014). It is also shown that how customers experience the interaction on a social media site can be influenced by the characteristics of the site itself (Zhang et al.,2015). Eroglu et al. (2001) used the S-O-R paradigm in the online retail context, and presented high task-relevant cues as all the site descriptors that appear on the screen, which makes the consumer reach their goal on the website.

The low task-relevant cues are all the site information not as important in completing the desired task. Social media platforms and online retail stores have relatively similar features, and linking these high and low task-relevant cues to the social media context is considered relevant. Zhang, Lu, Gupta and Zhao (2014) stated that social media have unique technological features, and divided them into different types of stimuli. They explained the first as "interactivity", which is the degree one can control the social media network to adjust its form and content in real time. The second is "sociability", explaining how social media environment enables customers to engage in interdependent preferences, as well as cues related to interpersonal relationship, trust, social cohesiveness and a sense of community (Zhang et al., 2014).

The *organism* stage is represented by processes that has an effect on the relationship between stimulus and response. The organism in the social media context is the social media itself (Peters et al., 2013). There are two internal states, explaining consumers emotional and cognitive reactions to cues, being *affective and cognitive intermediary states*. The affective state is the consumer's response related to pleasure and arousal, while the cognitive state is about how online consumers use the information provided. Eroglu et al. (2001) also found two moderators that can affect the relationship between stimuli and organism, being involvement and atmospheric responsiveness. Involvement is the degree of personal relevance, and explains whether the online shopping activity is perceived to help achieve consumers' goals. This can influence how much impact the cues have on the affective and cognitive states.

Atmospheric responsiveness is to what degree the environmental characteristics (external influences) can have an effect on the consumer's decisions. Three categories are explained to determine customer behavior in social media (Zhang et al., 2014). Social support is a person's perceptions or experience of being cared for, responded to, and helped by people in the social group (Liang, Ho, Li & Turban, 2011), and includes mostly informational support (recommendations, advice and knowledge) and emotional support (caring, understanding, empathy) in social media. Social presence is explained as another customer experience that can explain behavior. Social media enables consumers to form interpersonal connections, and can therefore experience social presence. The degree of social presence describes to what degree social media manage to establish a personal, warm, intimate and sociable interaction with others (Animesh, Pinsonneault, Yang & Oh, 2011). Social media includes different activities like social searching, impression management, social recommendation and social communication, which are highly interactive, enjoyable and involving, and can therefore increase exploratory behavior (Zhang et al., 2014).

The *response* stage represents the final outcome. Zhang et al. (2014) explained that in the social media context, customers are exposed to many different technological features or functions, including user-provided shopping experiences and ratings, social recommendations, and user profiles. All these features and functions can lead to participation in social media, which can include adoption or avoidance of a

certain social media platform. The consumer will choose either approach or avoidance, where the approach behavior includes all positive actions that can be included in a particular situation. Avoidance concerns the opposite, being all negative actions that can occur in a particular setting. Eroglu, Machleit and Davis (2003) found the online store atmosphere to make a difference in the online environment, which can be related to the social media context based on their similar features and functions. The effect of the site atmosphere on attitude, satisfaction and approach/avoidance is the result of the emotions experienced by the consumer. By increasing the atmospheric qualities of the website, consumer's level of pleasure is found to be increased.

#### 2.1.2 Social presence and media richness

An additional way to explain the adoption of social media is to focus on the medium's attributes, and literature explains that people adopt communication technologies based largely on the characteristics (Flanagin & Metzger, 2001). Social presence explains how mediums differs in the degree of being present, describes the acoustic, visual and physical contact that can be achieved, and is influenced by the intimacy and immediacy of the medium (Kaplan & Haenlein, 2010). The adoption of new technology is affected by perceived social presence, and is found to positively affect user trust and intentions in an online context (Dash & Saji, 2008). Higher social presence leads to higher social influence that the communication parts have on each other, and mediums with more cues have higher social presence.

Media richness is an important dimension of social media, and the adoption of social media is expected to be higher for mediums with higher media richness. Rich media and media with a high degree of social presence are well suited for ambiguous and unclear tasks that requires resolution of different views and opinions among people (Yoo & Alavi, 2001). These types of tasks are found in social media technologies, and especially social networking sites and content communities are moderate both in presence and richness (Kaplan & Haenlein, 2010). This is because these technology platforms enable sharing of pictures, videos and other forms of media, as well as social media offers the possibility to have a personalized and varied language (Kaplan & Haenlein, 2010). Social media's presence and richness indicates that these attributes can influence the adoption of social media.

#### 2.2 Perceived Ease of Use and Perceived Usefulness

Several studies have been done on technology acceptance, trying to understand why people will reject or accept new computer technology (Davis, 1989; Davis et al.,1989; Lin et al., 2007). The Technology Acceptance Model (TAM) explains technology acceptance and user behavior, and Davis (1989) and Davis et al. (1989) present two variables that can predict technology adoption, being 'Perceived Usefulness' and 'Perceived Ease of Use'. They define Perceived Usefulness as "the degree to which a person believes that using a particular system would enhance his or her job performance" and Perceived Ease of Use as "the degree to which a person believes that using a particular system would be free of effort" (Davis et al.,1989, p.320). The model works as a tool for predicting, but also explaining whether consumers would use information technology (Davis et al., 1989). It assumes that technological innovations perceived as useful and easy to use are more likely to be accepted and adopted by consumers.

Whether a social media becomes successful or not can be related to its Perceived Ease of Use and Perceived Usefulness (Rauniar, Rawski, Yang & Johnson, 2014). Failure is found to be related to its inability to get acceptance and popularity among its target users. It is suggested that some social media platforms are successful because they are useful and easy to use in the personal, social and professional life of individuals (Rauniar et al., 2014). If consumers have an overall favorable social media usage experience, they will have a more positive attitude towards the social media. Choosing to regularly use and engage in social media will continue if usage leads to an overall positive attitude toward using it (Rauniar et al., 2014). Perceived Usefulness was found to be an important determinant of a user's intention to use a particular social media (Rauniar et al., 2014), which most likely will lead to actual use (Ajzen & Fishbein, 1975).

Davis (1989) research found Perceived Usefulness to be more important than Perceived Ease of Use, which indicate that no amount of Perceived Ease of Use can compensate for a system that do not have a useful function. This can also be seen in Davis et al. (1989) study, where they found Perceived Usefulness to be stronger linked to people's use of technology than Perceived Ease of Use, and indicated that Perceived Ease of Use act as a predictor of Perceived Usefulness (Davis 1989; Davis et al., 1989). Also, Gefen and Straub's (2000) presented similar findings in

their study, that Perceived Ease of Use have an indirect effect on user acceptance through Perceived Usefulness. Building on these findings, Perceived Usefulness is shown to have a positive direct effect on acceptance of a system (Gefen & Straub, 2000). Research has shown that previous experience and use of innovation technology can increase a consumer's perception of its Usefulness and Ease of Use, which also affect the intention to use a product (Gefen, 2003). Researchers have therefore developed newer models that take individual differences into consideration.

#### 2.3 Technology readiness

Technology readiness (TR) refers to "people's propensity to embrace and use new technologies for accomplishing goals in home and at work" (Parasuraman, 2000, p.308). Parasuraman (2000) developed the technology readiness Index (TRI), a tool to measure people's beliefs about the technology. He states that consumers disposition to embrace technology can be split into drivers of technology readiness (optimism and innovativeness) and inhibitors (discomfort and insecurity). Optimism refers to people having a positive feeling towards technology and that it provides efficiency and flexibility to their lives. Innovativeness is explained as the tendency to be a pioneer in the technology industry (Parasuraman, 2000). Further, discomfort is a feeling of being overwhelmed by the technology and insecurity refers to skepticism and the ability for it to work as it should (Parasuraman, 2000). This scale is widely used and good at understanding the customer's readiness, and the two different beliefs about the technology does correlate with their disposition to embrace and employ new technology. The growing market of technology services and products implies that insight into customer's technology readiness is important both now and in the future (Parasuraman, 2000). The TRI score can be used as a segmentation tool to help companies make strategies and answer questions about their customer's level of technology readiness regarding the company's services and products.

Colby and Parasuraman (2003) continued the research on TR and suggested five segments within technology readiness which includes a combination of positive and negative beliefs (i.e. optimism, innovativeness, discomfort and insecurity), being explorers, pioneers, skeptics, paranoids and laggards (Colby & Parasuraman, 2003).

Lervik-Olsen and Andreassen (2014) analyzed these segments in the social media context, and found only three clusters to be relevant; innovators, reluctant/doubting and laggards. They also found two distinct groups of users, being optimistic innovators and pessimistic laggards, where optimistic innovators were shown to be the biggest group. They find social media to be easy to use and of high perceived usage (Lervik-Olsen & Andreassen, 2014). Based on these results, people in general are ready for social media technology, and their readiness has a positive, indirect effect on attitudes towards interaction in social media (Lervik-Olsen & Andreassen, 2014).

As social media is already a widely used technology among consumers, most people have prior experiences with these technologies. Together with Lervik-Olsen and Andreassen's (2014) findings, we expect consumers to be ready for the technology, and are more likely to search for additional information about attributes. Lin et al. (2007) found the TAM model not to be sufficient in explaining consumer's adoption behavior in the marketing setting, and noticed TR's weaknesses about its incapability of explaining why consumers being ready for the technology does not always adopt. They found it necessary to incorporate Perceived Ease of Use and Perceived Usefulness together with technology readiness, to better broaden the applicability and explanatory power of TAM and TR. Based on this, they implemented the two constructs together in a new model, called Technology Readiness and Acceptance Model (TRAM).

## 2.4 Ease of Use and Usefulness in the social media context

As mentioned, technology acceptance refers to Perceived Usefulness and Perceived Ease of Use, while technology readiness represents general individual beliefs about the technology. Even though they measure different constructs, Lin et al. (2007) found the two models to be interrelated, and that technology readiness could act as a causal antecedent of Perceived Usefulness and Perceived Ease of Use. To better explain how the two concepts together will affect the consumer's intention to use an online service, the TRAM model was created (Lin et al., 2007).

TRAM tries to explain why consumers do not adopt technological objects even though they are ready for the technology. A possible reason is Perceived Usefulness

and Perceived Ease of Use influence on consumers when deciding whether to adopt technology (Lin et al., 2007). People with existing knowledge about the technology is expected to search for more information before making a choice, due to their high awareness of existing attributes (Brucks, 1985). Prior experiences with information technology lead to stronger self-efficacy (Venkatesh & Davis, 1996), and these experiences are found to play an important role when consumers are processing information and try to make a decision (John, Scott & Bettman, 1986). Wang, Wang, Lin and Tang (2003) experienced a positive effect between self-efficacy and perception of Usefulness and Ease of Use of technology. Consumers experiences gained through previous use of technology, lead to increased perceptions of the technology's Ease of Use and Usefulness, which affects users' online intentions (Gefen, 2003). Perceived Usefulness and Perceived Ease of Use are expected to have a strong positive effect on explaining social media technology adoption.

In consumer's evaluation process of adopting new technology, technology readiness is found to be processed before Perceived Usefulness and Perceived Ease of Use, and Perceived Usefulness and Perceived Ease of Use together was found to have a mediating effect in the relationship between technology readiness and consumers' intention of usage. As mentioned earlier, technology readiness must be measured individually, which implies that companies using e-services must pay attention to individual differences, such as prior experience, including familiarity and expertise about the technology, to be able to direct their communication and marketing more directly to their desired target group (Kim, Park & Morrison, 2008). Consumers using social media actively are more likely to have a clear understanding of how social media works, and these relevant prior experiences are expected to result in positive perception of Usefulness of internet communication (Irani, 2000). Usage of technology leads to increased knowledge, and therefore, people having familiarity and expertise may need less additional information to adopt new technology based on convenience (Kim et al., 2008). Consumers using social media frequently are expected to understand how social media works, and be confident of how to use it

Husa and Kvale (2009) confirmed that using the TRAM model when studying intention to adopt new social media technology was suitable, and explained that individual differences in terms of social media readiness was positively correlated

with consumer's perception of Ease of Use and Usefulness. Their findings also showed that attitude towards customer-company interaction is positively correlated with Perceived Usefulness and Perceived Ease of Use in the social media context. Lin et al. (2007) presented how technology readiness could be an antecedent of Perceived Ease of Use and Perceived Usefulness, and how these constructs affect consumer's intention to adopt new technology. Husa and Kvale's (2009) findings showing the TRAM model can be used in a social media context, and other previous findings (Lin et al., 2007, Kim et al. 2008) describing that Perceived Ease of Use and Perceived Usefulness can predict the usage of new technologies, we expect Perceived Ease of Use and Perceived Usefulness to have a positive effect on Adoption of social media technology.

# H1: Perceived Ease of Use has a positive effect on Adoption of social media technology

# H2: Perceived Usefulness has a positive effect on Adoption of social media technology

#### 2.5 Always logged-in – The need to constantly stay connected

Numerous people are always logged in and have the need to access information and services at any time wherever they are, as well as they often have the "Fear of Missing Out" (Andreassen et al., 2015). Internet is now the number one source of media at work, and number two source at home (Mangold & Faulds, 2009). Consumers are turning more frequently to different types of social media to collect information that can help them make purchases and decisions, which is due to the information being shared and exchanged among social media users (Mangold & Faulds, 2009). The increasing use of internet may lead to a behavioral addiction, and especially the use of interactive functions can trigger compulsive internet use and over involvement (Chou, Condron & Belland, 2005). For people to communicate through different electronic devices, these need to be connected. Connectivity describe the connection between electronic devices, and Kolb (2008, p, 128) defines connectivity as "the mechanisms, processes, systems and relationships that link individuals and collectives (e.g. groups, organizations, cultures, societies) by facilitating material, informational and/or social exchange."

There are different states of connectivity, explaining how much connectivity is present in a given situation; hypo-connectivity, hyper-connectivity, requisite connectivity and optimal connectivity (flow) (Kolb et al., 2012). Hypo-connectivity is when there is not enough connectivity to perform the tasks you should. The lack of connectivity can make it difficult to be always logged in, and people risk missing out on certain activities. Further, hyper-connectivity refers to a high level of connectivity, which in some cases lead to inefficiency due to information overload, as it can lead to distraction, ineffectiveness and burnout (Kolb, Collins & Lind, 2008). High level of connectivity can lead to different outcomes of always being logged in, as hyper-connectivity both has a downside and an advantage, because more connectivity is not necessarily better. On one side, information overload may lead to people not being logged in due to distractions and waste time.

On the other side, high level of connectivity make people avoid not missing out on certain activities, being beneficial for people who need to be alerted at all times. Furthermore, requisite connectivity is having a middle level of connectivity, which help people to become effective in different tasks and maintain the intensity that we want for different social outcome (Kolb et al., 2008). Lastly, those who manage to deal with the steam of connectivity can experience flow, and optimal connectivity help people being social and reaching a balance that is right for them. Therefore, a love-hate relationship exists, as people love the flexibility mobile devices gives, while it on the other hand also lead to people never getting a break from work and other external environments (Kolb et al., 2008). Chen, Wigand and Nilan (2000) suggest that activities online can lead to an experience of flow, and that activities like searching, surfing or navigation, reading or writing, and chatting are activities that can lead to web-flow. Paulsen and Leistad (2012) did find flow to be an antecedent for people being always logged in.

Many people feel their job expects them to be available through communication technology. The need for constant availability requires being accessible at any time through a mobile device, and the state of constant connectivity cause people to be always logged in, which is found to make them more available and efficient (Wajcman & Rose, 2011). Van Dijck (2013) states that it is nearly impossible to avoid being represented by a social network, and that professional success is affected by how present a person is on social media. This shows the importance of

being logged in to succeed also in work life. Wajcman, Rose, Brown and Bittman (2010) also found people having internet access to find it useful as it helps them balancing home and work life, as taking work home actually resulted in greater work-family balance. When working from home, people do not miss out on family activities, and it causes less stress and a better home life. Consumers try to balance work and home life and it can be stated that people take advantage of the technology and use it in their everyday life due to its benefits.

Whiting and Williams (2013) found that social interaction and information seeking were the most important reasons explaining why people use social media. When individuals are connected, they feel close to people far away (Kolb et al. 2008), as social media make it easier for people to share and access information (Chen, Fay and Wang, 2011). Previous research on social media has to a large extent been focusing on its usage, and the benefits it gives in terms of communication and content sharing (Correa, Hinsley & De Zuniga, 2010; Whiting & Williams, 2013; Quan-Hasse & Young, 2010), but little research has been done on ALI's effect on consumer's Adoption of social media technology. As we have the need to stay connected, Kolb et al. (2008) explained that people's unresolved need for connection in one network lead to an increased desire to make connections on other platforms. Needs are being met when people are logged in, as social media let consumers experience social interactions and get access to information easily. Social media is a widely used tool to achieve these goals, and therefore, it is reasonable to believe that ALI has a positive effect on Adoption of social media technology.

# H3: Always logged-in has a positive effect on Adoption of social media technology

#### 2.6 Fear of Missing Out on positive experiences and social activities

Przybylski, Murayama, DeHaan and Gladwell (2013, p. 1841) define Fear of Missing Out (FoMO) as "a pervasive apprehension that others might be having rewarding experiences from which one is absent, FoMO is characterized by the desire to stay continually connected with what others are doing". This is related to being scared of missing out on something important or being excluded from social circles (Andreassen et al., 2015). People feel agitation when they risk losing out on

positive experiences, which can be an all-consuming behavior (Przybylski et al., 2013). Participating in social media may be attractive for consumers with FoMO, as these tools provide great level of social involvement. Much of the communication regarding social activities are being distributed over social media, indicating the need to be online to be social. Activities and invitations are often being posted on social media, indicating not being online can result in missing out on certain activities with friends and family (Andreassen et al., 2015). FoMO can be related to psychological health and well-being, as it is shown that consumers who are always logged in can be distracted from important social experiences in the time here and now (Przybylski et al., 2013).

Murray and Waller (2007, p. 56) state that "Social Networking sites are virtual communities for people interested in a particular subject or just to "hang out" together", and Cheung and Lee (2011) argue that people use social networking website to get connected and communicate with their friends and family. Social networking sites and social media help people expand and manage their network easily, stay in touch with family and friends and share content. Participating on social media sites can be attractive for people who have FoMO as social media sites like Facebook and Twitter are tools helping people achieve social connections and social involvement (Ellison, Steinfield, & Lampe, 2007).

Social media platforms can be seen as online communities, where members share common interests (Zhou, 2011). Therefore, we can expect people to feel socially excluded from the online environment if he or she is not logged in nor taking part in the online community. A study from Beyens, Frison and Steven (2016) presented that people who experienced more FoMO, were more active Facebook users. The increased need to belong and increased need for popularity were strongly linked to the increase in Facebook use and the relationship between these needs can be explained by people's FoMO. The study emphasizes the importance of FoMO when explaining Facebook usage. To not miss out on different activities on social media, people need to be always logged in to have easy and quick access. Several studies mention relationship maintenance, socializing and self-status seeking as perceived gratification of using social media (Dunne, Lawlor & Rowley, 2010; Park, Kee & Valenzuela, 2009), which can lead to people deciding to stay logged in at any time due to their fear of feeling socially excluded. Moreover, little research has been

done on FoMO and its effect on ALI in the context of social media technology, but Paulsen and Leistad (2012) found FoMO to have a positive effect on consumer's behavior of being always logged in online, thus we expect FoMO to have a positive effect on ALI in the social media context.

### H4a: Fear of Missing Out has a positive effect on being Always logged-in

Przybylski et al. (2013) found a link between FoMO and the engagement in social media, where consumers high in FoMO look at opportunities to engage in social media technology. Larkin and Fink (2016) also argue that there exists a positive relationship between FoMO and social media involvement. People high in FoMO show a higher need of approval, and the need for approval could lead to higher use of social media, and might cause an addiction. People with high need for approval would turn to social media more frequently to be updated with their social network (Lai, Altavilla, Ronconi & Aceb, 2016). Previous research has mainly focused on FoMO in relation with engagement, usage and involvement in social media (Przybylski et al., 2013; Larkin and Fink, 2016; Fox & Moreland, 2015), but little research has been focusing on FoMO and its effect on why people adopt social media technology. Based on existing literature, there are reasons to expect that consumers high in FoMO are likely to adopt social media technology.

# H4b: Fear of Missing Out has a positive effect on Adoption of social media technology

#### 2.7 Consumer's desire to achieve Return on Time

RoT refers to people wanting to fill their time with the optimal number of self-fulfilling experiences and increase their subjective well-being (Andreassen et al., 2015). Andreassen et al. (2015) found individuals who choose to use scarce time on a specific activity expect a maximum benefit in terms of efficiency and the quality of an experience. An individual optimizes their RoT when they can use more time on activities that will give them self-fulfilling experiences. According to Andreassen et al. (2015, p.20) optimizing RoT means "finding the optimal balance between the quality and quantity of experience, given the time available.". The balance is achieved by a combination of three unique and interdependent drivers; saving time, buying time and spending time, where time spending is highlighted as

the most important, because improving the quality of time spent is considered to be the main building block of increasing RoT. Aaker, Rudd and Mogilner (2011) indicates that spending time on the right kind of activities and people can make them happier and increase their well-being, which can be related to Andreassen et al. (2015) findings explaining that an increase in RoT leads to increase in well-being.

Subjective well-being (SWB) refers to people's evaluation of their own lives, both affective and cognitive (Diener, 2000). People sense a high SWB when they are engaging in interesting activities and are satisfied with their lives (Diener, 2000). When the basic need for humans are met, people move into a new phase where they are concerned with their self-fulfillment, and Diener (2000) reported that happiness and well-being are very important for people. It is argued that SWB is individual and that a person's personality influence subjective well-being. Well-being can be divided in two categories; external and internal. External is related to family life, while internal refers to self-esteem and effectiveness (Lane, 1993).

By using social media technologies people can free up time as these technologies give the opportunity to access information and maintain relationship whenever and wherever they are (Andreassen et al., 2015). Based on this, consumers can optimize their RoT when spending more time on social media technologies, as social media technologies will give them self-fulfilling experiences. Boven (2005) found investing in life experiences makes people happier than investing in material possessions, which implies increase in material goods does not necessarily lead to happiness. Aaker et al. (2011) also argue that money does not have to be a driver of happiness, and time can be just as important in explaining happiness, because time can give personal and relational meaning. This can be seen in context with gratifications related to social media usage, as two of the most important gratifications are relationship maintenance and socializing (Park et al., 2009), which indicates spending time on social media can lead to happiness and increase in wellbeing. Mobile devices and social technologies are portable and give consumers the opportunity to be logged in and have access to information anywhere and at any time, leading to time being saved, and achieving more efficient time usage.

People optimize their RoT when they can use time on activities that give them advantages in terms of efficiency (Andreassen et al., 2015). In this context,

consumer's investments include time spent on social media (Hoffman & Fodor, 2010). Social media is more time efficient than traditional communication tools, and is an effective and important social platform for communication (Kaplan & Haenlein, 2010). Dunne et al. (2010) found that consumers use social media networking sites because of entertainment, peer acceptance, relationship maintenance and information seeking. Park et al. (2009) presented information seeking, socializing, entertainment and self-status seeking as gratifications derived from social media use. These are all reasons giving individual's self-fulfilling experiences, leading to return on time spent. Therefore, social media has become a big part of people's everyday life, and to reach their everyday goals, consumers are likely to spent more time on social media (Lin & Lu, 2011). Based on consumer's enhanced desire to achieve RoT, and considering that social media usage will most likely increase in the future (Interbuss, 2016), being always logged in is important for people to reach their goals that can give them self-fulfilling experiences.

#### H5a: Always logged-in has a positive effect on Return on Time

Further, Lin and Lu (2011) found enjoyment to have the strongest effect on people continuing to use social networking sites, showing RoT to affect consumer's time spent on social media instead of ALI having a positive effect on RoT. As mentioned, the use of social media can lead to self-fulfilling experiences, and when people have a feeling of well-being, they will likely seek to maintain this feeling. To achieve this, it is reasonable to expect consumers to continue being active on social media also after they feel their time spent is optimized. As such, it is expected that:

#### H5b: Return on Time has a positive effect on being Always logged-in

It is argued that convenience of a service can have an effect on consumer adoption (Berry, Seiders & Grewal, 2002). Convenience of a service can give the opportunity to free up time with help of a product, which can motivate consumers to make a purchase, or in this case choose to adopt a service (Berry et al., 2002). Time and effort required to adopt and use a service are essential in consumer's perception of service convenience, meaning consumer's perceptions will be lower if there are high time costs related to the service. When individuals try to reduce time voluntarily, their perception of service convenience is likely to increase. As social

media technology gives the opportunity to save time and spend it on self-fulfilling activities, time cost related to social media usage is considered to be low, making it a convenient service (Andreassen et al., 2015). Whether a product or service can achieve marketing effectiveness is a function of saving consumers time, and not as much about saving money. Berry et al. (2002) stated that all marketing performances that require customer time and effort fall within the concept of service convenience, indicating it is relevant to evaluate social media based on this construct.

As social media can be seen as a convenience service, using this service will make consumers feel they free up time. People already experiencing RoT based on previous social media usage, or consumer's seeking to achieve RoT are expected to be more likely to adopt social media technologies, because they know using this service can optimize their time spent. The gratifications related to use of social media all concerns activities leading to self-fulfilling experiences and a feeling of well-being (Dunne et al., 2010; Park et al., 2009). These are all feelings consumers seek, and when using social media can make them reach these goals, it is reasonable to think they will have an intention to adopt. Previous research has analyzed RoT on a general basis, but not in the social media context. Social media has become a part of people's everyday life, and it is therefore important to know how RoT plays a role in the adoption of social media (Lin & Lu, 2011). As most people use social media on a voluntary basis, as well as it can be seen as a convenient service, RoT will likely have a positive effect on adoption.

#### H6: Return on Time has a positive effect on Adoption of social media technology

#### 2.8 Social media Habits

Habits is defined as a form of repetition or behavioral script stored in memory (Verplanken, Aarts & Moonen, 1998). They are being formed by repetition or practice of a certain behavior, which thus create a mental association between the goal and the situation triggering the behavioral response (Verplanken et al., 1998; Wang, Lee & Hua, 2015). Habits are behaviors that carry with them a form of automaticity, meaning the action does not require a conscious form of guidance to be performed (Lee, Ho & Lwin, 2017). For a habit to be formed, an action must be repeated frequently, and therefore habits do play a role in daily routines. In the

social media context, habits can be described as behavior by those who automatically repeat their use of such service (Yen & Wu, 2016). Over time, the habit strength builds, and consumers fall into a pattern of repeated media behavior, which can be seen as a media habit (Diddi & LaRose, 2006).

Larose and Eastin (2004) found internet to be viewed as an automatic or habitual character, and that people have made online communication a part of their daily routine. Based on this, mobile technology is shown to be a good platform for firms to create habitual interaction from consumers (Wang, Malthouse & Krishnamurthi, 2015). Several habits are found to be related to social media, which shows social media to be very important in people's life. Research has shown that over half of all media behaviors are habitual (Larose, 2010), and typical online habits are reading news at breakfast and checking email before arriving to work, and most people connect immediately to social media after waking up (Larose, 2010; Bicen & Arnavut, 2015). Social media is at the top of people's to-do list, leading to individuals spending more time on social media than with their friends (Bicen & Arnavut, 2015).

When people have greater perceived habit strengths, they tend to spend more time on online communication (Ang., 2016). Media consumption is a function of formation of media habit strength and decreased self-regulatory capability (Lee, Ho & Lwin, 2017). Because internet habits strength has increased, online communication has also increased, showing the influence of habits on the use of social media. A person's habit is shown to be a critical factor influencing users to use mobile services regularly (Yen & Wu, 2016). This is also supported in Barnes and Böhringer's study (2011), where they found habits to be a strong determinant in influencing users to continuously use mobile services. Yen & Wu (2016) also explained that habits directly influence intention, which can be an explanation for the time spent on social media. Previous research has mainly been focusing on habits impact on increased smartphone use and time spent on online communication (Oulasvirta, Rattenbury, Ma & Raita, 2012; Ang, 2016; Barnes & Böhringer, 2011), but the literature is lacking research regarding how habits influences phenomena like ALI. Based on previous research we can expect habits to have a positive effect on ALI.

#### H7: Habits has a positive effect on being Always logged-in

# 2.9 The complex construct of Nudging

There are different ways to present choices to a decision maker, and how the choice is presented influence the choice made by the consumer. A choice architecture has significant influence on what the decision makers will choose (Leonard, 2008). A nudge is an aspect of the choice architecture, which change and influence the consumer's behavior in a predictable way without limiting or forbidding the choice set (Leonard, 2008). Nudging helps people overcome cognitive or behavioral biases in decision making without forcing them towards a certain behavior (Wang et al.,2013). It is a complex construct and a relatively new term in the social media literature. Previous research on Nudging has mostly been focusing on nudges in the context of healthcare (Regulating, 2011; Hanks, Just, Smith and Wansink, 2012), but has not been researched in a social media technology context. Nudges in social media most likely consists of different dimensions due to its complexity, and is therefore difficult to define as one construct. These dimensions should be analyzed separately in order to see how they affect the consumer phenomenon ALI. By dividing Nudging into different dimensions, it is easier to see if some dimensions have a stronger effect on consumer's time spent on social media. Due to lack of previous research about Nudging in the social media literature, we have chosen to split Nudge into a threefold construct, consisting of the dimensions Nudge Hygiene Factor, Social Nudges and Motivational Nudges. Theses dimensions were chosen mainly because they cover both individual and social aspects of the construct, giving us a greater understanding of the construct as a whole.

### 2.9.1 Prerequisite for using social media technology

In order for nudging in a social media context to work, there are some factors that need to be in place. Being online has become easier because of the increased accessibility of internet (free Wi-Fi and 4G) and the increased offer of mobile devices (Lervik-Olsen, Andreassen og Fennis (under review)). As many as 97 % of the Norwegian population has access to internet and 91% use it daily (Interbuss, 2016), and the increased accessibility of the internet has also made it easier for consumers to communicate with each other, being available and being always logged in.

The access to the internet has changed during previous years. Consumers are no longer only accessing from laptops and computers, but they can go online through their phones and other portable devices, making it easier to be available at all times (Lenhart, Purcell, Smith & Zickuhr, 2010). There is an increase in mobile devices to choose from and Norwegians use an average of 2.3 electronic devices during the day (Interbuss, 2016). Leung (2001) found that use of the web and communication technologies like phones were positively linked to the level of instant messaging use.

Nudging can be implemented in a big variety of forms which can result in various outcomes (Kosters & Heijden, 2015). As it is found that anyone can nudge, it may also be implemented in the context of people's behavior towards social media. Nudge is a feature of instant messaging that can remind and inform people with real-time text, being a social media tool leading to productivity. For people to send and receive instant messages it is necessary to be online, meaning internet is a prerequisite for using instant messaging. It is now integrated in almost every social networking site, including Facebook, Instagram, Snapchat, Twitter and Linkedin, and instant messaging apps is expected to count for 75% of mobile traffic by 2018 (Piwek & Joinson, 2016). Ogara, Koh and Prybutok (2014) found that people who use mobile instant messaging will develop experience leading to interaction with technology and group members. More interaction may enhance social presence, giving people the opportunity to have information about both location and status of those they are communicating with (Ogara et al., 2014). Having internet accessibility at anytime and anywhere allows people to receive nudges and use instant messages whenever they want, leading to being always logged in. Based on previous research about instant messaging and internet accessibility, there are reasons to believe that number of devices and internet accessibility will have a positive effect on being always logged in.

#### H8a: Nudge Hygiene Factor has a positive effect on being Always logged-in

#### 2.9.2 Social Nudges

An individual's behavior can be predicted by the normative perceptions regarding a certain behavior. Ajzen (1991) explained the subjective norm to be the perceived social pressure from significant others to perform or not perform the behavior,

where the subjective norm influences a person's intentions. Normative influences can affect a person's' attitudes, norms and values, and lead to a certain behavior. These findings are also relevant for an individual's behavior in social media, where intention to use social networking sites can be explained by social influence, as well as the subjective norm is found to be a significant predictor of people's intentions to engage in frequent use of social media networking sites (Cheung & Lee 2010; Venkatesh & Davis, 2000; Burnkrant & Cousineau, 1975; Baker & White, 2010). Social media is about interaction and communication with family and friends, which is the objectives of most users, and they are therefore easily influenced by other people's opinions in a social networking site (Cheung & Lee 2010).

The subjective norm is found to influence how people use social media (Cheung, Chiu & Lee, 2011; Marino, Pastore, Albery, Frings & Spada, 2016). Pelling and White (2009) presented that consumers feeling high pressure from others are likely to be active users of social media, and Nysveen, Pedersen and Thorbjørnsen (2005) explained normative pressure to influence the intention to use mobile services. On social media sites like Facebook people share experiences, content and thoughts with each other, and if a person feels that a group on a social networking sites share the same believes as them, they tend to use social networking sites more frequently to achieve the same goals (Marino et al., 2016). To fulfill these goals, people must be logged in on social media, which can lead to an increase in time being logged in. Users of social media often tend to employ a broad range of tools leading to an integrated media use (Piwek & Joinson, 2016), and by using several social media tools, the time spent online is expected to increase.

From the nudge theory, it is found that consumers use of instant messaging and social media is affected by social influence (Shen et al., 2011; Dholakia et al., 2004). Consumers are more likely to use and react to instant messages and nudges in social media if this behavior is believed to be expected by significant others, like family and friends (Glass & Li, 2010). These findings are in line with Lu, Zhou and Wang's study (2009), explaining the subjective norm to have a significant impact on a consumer's intention to use and react to nudges on social media. Individuals are more willing to use instant messaging if people around are using it, because they believe other important people expect they should engage in the behavior (Lu et al., 2009). Therefore, social norm will likely act as a dimension of nudging in the social

media context, due to its influence on consumer's reaction to nudges and instant messages. We call this dimension Social Nudges.

Even though previous research has focused mainly on social norm in the social media context in general, little research has been done on how it influences consumer's reaction and use of nudges. Based on evidence showing that social norm can lead to increased use of social media (Pelling & White, 2009), it is expected to influence use and reaction to Social Nudges, as Social Nudges can act as a dimension of nudges in the social media context. Therefore, behavioral intention to use and react to nudges will likely be affected by social norm the same way as general social media use. The clear influence of social norm shows that people will have a stronger intention to use and react to nudges if they believe this is expected by people important to them. Hence, Social Nudges will lead to increased time spent on social media.

## H8b: Social Nudges has a positive effect on being Always logged-in

## 2.9.3 Motivational Nudges

Consumers have different motivations for joining and using social media. Motivation is defined by Schiffman et al. (2008, p.105) as "a state of need induced tension that drives the individual to engage in behavior that he or she believes will satisfy the need and reduce the tension". A person's motivation can be influenced by their ability to reach a certain goal.

Leung (2001) found affection, sociability and fashion to have an influence on consumer's motivation for using instant messaging, were affection and sociability was found to be the strongest predictors. People who used instant messaging was motivated by affection and sociability, as they have higher desire to meet new friends, express affection and show concern for others. Lighter users were more motivated by fashion, and use instant messages to stay trendy and fashionable.

Many of Leung's (2001) findings were consistent with Quan-Haase and Young's (2010) study about motivations for using Facebook. They also found affection to be a motivation for using Facebook, as Facebook serves to reach out to others, but it was not as good as instant messaging in expressing affection. Many people use Facebook to socialize, meet new people and overcome social inhibitions, but is

mostly used to maintain existing social relationships. Quan-Haase and Young's study (2010) also found that people joined Facebook because everybody else had it, and they wanted to be part of this social trend. The study showed that consumers primary motivation for joining Facebook was that "a friend suggested it", and they feel a need to communicate with their friends once they have joined. Previous research has mainly been focusing on motivation in a general social media context, especially regarding Facebook use, but little research has been done on consumer's motivation to use and react to nudges. Quan-Haase and Young (2010) argued that people joined Facebook because "everyone I know is on Facebook", and they want to be part of a group and a social trend. When people are motivated to use nudges, they are always being logged in, mainly because nudges and instant messaging will remind them to do so. Therefore, there are seasons to expect that people's motivation for receiving and using nudges may lead to ALI.

H8c: Motivational Nudges has a positive effect on being Always logged-in

## 3.0 Conceptual Framework

The model below (Figure 1) clearly demonstrate the pathways in the study, and summarize our conceptualized literature review, research question and hypotheses. The literature found support for the influence between the different variables and how they affect each other.

In the conceptual framework, we propose that the variables Perceived Ease of Use and Perceived Usefulness has a direct positive effect on the Adoption of social media technology. Furthermore, the model presents that ALI, RoT and FoMO have a positive direct effect on Adoption of social media technology. We also believe that ALI does have a positive direct effect on RoT or that RoT have a positive effect on ALI. Lastly, we visualize that the variables FoMO, Habits, Nudge Hygiene Factor, Social Nudges, Motivational Nudges are antecedents that has a positive effect on the phenomenon ALI.

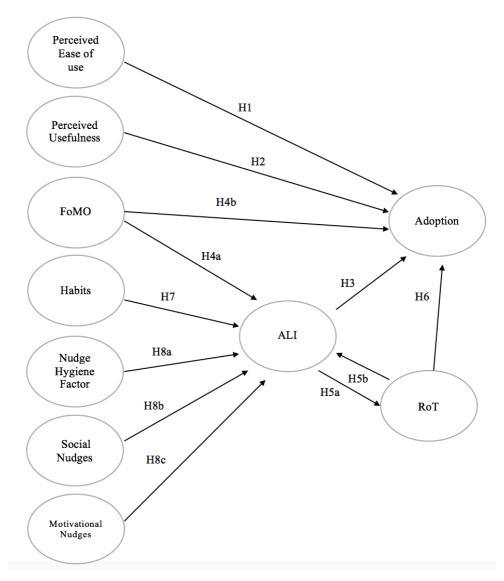


Figure 1: Conceptual Framework

# 4.0 Methodology

#### 4.1 Research Design

To test the conceptual model empirically, conducting a survey was chosen as the most suitable research design. Using a quantitative research is a relevant research design when the purpose is to collect data on describing of predict psychological constructs, and it gives the advantage to gather a large quantity of data in a short period of time (Malhotra, 2010). The purpose of the study was to get a deeper understanding of how ALI, RoT and FoMO affects Adoption of social media technology, and we therefore considered survey to suit our research question well. Previous research in the field made it possible to establish a survey mostly based on existing measurement scales, and a survey with a 7-point Likert scale were

distributed through the Internet, where Facebook was used to target our segment. The survey was created to cover the goal and purpose of the study, including questions seeking to identify how ALI affect Adoption of social media technology, as well as identify antecedents of ALI. To cover the whole research question, is was also necessary to establish questions that could help us identify if RoT is influenced by ALI or if ALI is influenced by RoT, and in addition investigate the effect of RoT on Adoption. Questions regarding FoMO was also included to better understand its influence on Adoption of social media technology.

#### 4.2 Population and Sample

The population for this study was Norwegians above the age of 15 using social media. In 2016, there were 3.16 million social media users in Norway (Statista, 2017), indicating there is a large amount of Norwegians who use social media. The sampling technique used when collecting the data was convenience sampling which is a non-probability sampling method (Malhotra, 2010; Hair et al., 2014). Because the population of interest was people using social media, it was important to get a sample from social media users, to be able to draw conclusions about the population. Therefore, social media and especially Facebook was used when collecting data.

#### 4.3 Data collection

When data was collected, it was carried out by using Facebook, giving us easy access to respondents using social media, being our target group. The survey was distributed on our private Facebook pages, as well as through 'Lilleputthammer's' official site including 17 000 members. This made the data collection process very efficient, as it was possible to reach out to many respondents during a short time period.

#### 4.4 Operationalization

When making the questionnaire a 7-point Likert scale were used to measure the items (1=strongly disagree, 7=strongly agree).

To make sure of content validity we have applied validated scales items from prior researches where it was possible, and have developed new items where there were no previous and relevant items to use. For all questions, except for those related to user habits and demographics, we have used a 7-point Likert balanced scale to measure our constructs. All developed scales, including its original reference, are listed in Appendix 1.

**FoMO:** Paulsen and Leistad (2012) used and adjusted the modified version of the Need to Belong Scale (Leary, Kelly, Cottrell & Schreindorfer, 2013) to fit the internet construct. We adjusted this scale even further, and found three of the four items in this scale to be relevant for our research. These items were then modified to fit the social media context. To cover the whole construct, we created an extra item based on existing literature in the field. By putting the adjusted scale from Paulsen and Leistad (2012) together with the new created item, we ended up with a 4-item scale to measure consumer's FoMO.

Habits: Habits was operationalized by looking at existing literature studying Habits, mostly in context with uses and gratifications. Our items were created and used based on scales from Larose and Eastin (2004), Bicen and Arnavut (2015) and Paulsen and Leistad (2012). All these scales were used to measure Habits in the internet context. From Larose and Eastin (2004) and Bicen and Arnavut's (2015) study, the most relevant items were chosen and adjusted for further use, while we looked at the factor loadings in Paulsen and Leistad's study (2012), before deciding which items were most relevant. Their full scale consisted of 7 items, and we decided to choose items with loadings above 0.4 and no cross loadings, as this secure higher content validity (Janssens, Wijnen, De Pelsmacker & Van Kenhove, 2008). We adjusted the items to fit the social media context, and ended up with a 5-item scale to measure Habits, where two items were chosen from Larose and Eastin (2004), one item from Bicen and Arnavut (2015) and two from Paulsen and Leistad (2012).

**RoT:** To measure the construct of RoT, we based our scale on the study of Dybdal-Holthe and Mollerud (2016). They developed a new scale to measure RoT based on empirical findings from research within the literature as well as results from their focus group. They proposed that time saving, time buying and time spending are

three unique drivers of RoT, and scales for these constructs were also created. To make the scale relevant for our research and to cover the whole construct of RoT, we chose one item each from the time saving scale and the time spending scale, as well as three items from the RoT scale. The scale was used to measure RoT on category level and the drivers were measured in a general context, and it was therefore necessary to adjust the scale to fit our social media context. After modifying the most relevant items, we ended up with a 5-item scale to measure RoT.

Perceived Usefulness and Perceived Ease of Use have been developed and adopted in several studies (Davis 1989; Davis et al., 1989). There has been conducted many studies on this construct, but little has been done in the context of social media. Husa and Kvale (2009) conducted a qualitative research with two focus groups and developed new items in order to understand and get insight into Perceived Usefulness and Perceived Ease of Use of consumer-company interactions in social media. Even though Husa and Kvale (2009) looked at the constructs for consumer-company interaction in social media, we could implement the items in our research. Based on Husa and Kvales research (2009) we chose the items with a factor loading above 0.4 to include in the survey, and ended up with five items from the Perceived Usefulness construct and three from Perceived Ease of Use.

ALI: Paulsen and Leistad (2012) adopted the construct ALI from the existing research on trendspotting (Andreassen et al., 2015). After their in-depth interviews and focus groups an 11-item measurement scale were established. Of the 11 items, we chose four items with a factor loading above 0.4 to be most relevant for our research. Furthermore, based on Kolb et al. (2012) literature about requisite connectivity we included one more item about efficiency of social media, because we needed to measure if social media can make people more efficient in everyday life. We ended up with a five-item scale which was used for further research.

*Adoption:* Adoption likelihood was operationalized through existing scales. Agarwal and Karahanna (2000) scale included three items to measure behavioral intention to adopt, where all items had high factor loadings (0.94-0.96). As we believed it was important to find out consumer's actual intention to adopt, we chose

one item from this research to be most relevant for our research. Three other items were formed based on Dybdal-Holthe and Mollerud's study (2016), who created an 8-item scale out of Manning, Bearden and Madden's (1995) consumer novelty seeking (CNS) and consumer independent judgement making (CIJM) scales. Two items from these scales measuring consumer's degree of information- and experience seeking were adjusted to fit the social media context. To find out if consumers are more likely to adopt if they receive information about social media, we also included one last item created by Dybdal-Holthe and Mollerud (2016) based on the focus group of Andreassen et al. (2015).

Nudge Hygiene Factor: Based on dimensions in Srinivasan, Lilien and Rangaswamy (2004) and Molina-Castillo, Munuera-Alemán and Calantone's (2011) research, Paulsen and Leistad (2012) developed new items for both direct-and indirect network externalities. Direct network externalities are when the utility of using social media depends on the number of consumers using it, which affect the value for each user, while indirect network externalities is related to the quality, accessibility and cost of using social media (Srinivasan et al., 2004). We adopted and used the three items developed for indirect network, which we have called hygiene factors. These factors must be present to be able to use social media, and therefore it was important to measure how accessible internet is for consumers and how easy it is to be online.

*Motivational Nudges:* Considering that nudging is a new construct and there were no items and scales available from previous research, it was necessary to develop new items for this construct. Based on literature on motivation for using social media (Schiffman et al., 2008) and instant messaging (Leung, 2001), we developed four items which would cover the construct of people's motivation for responding to and using nudges on social media.

**Social Nudges:** The construct of social norm is very common and widely studied in context with behavioral intention, both offline and online. It was therefore important to select the items most relevant for our research. Cheung et al. (2011) and Marino et al. (2016) both studied how the subjective norm influence people's use of Facebook. The two-item scale from the study of Cheung et al. (2011) had a Cronbach's alpha of 0.69, which indicated high validity (Janssens et al., 2008). One

item from this study, as well as one item from the study of Marino et al. (2016) was adjusted to fit the social media context. Since we wanted to connect social media and Nudging, we also created two new items based on social media and nudge theory. These contained elements based on how consumers are affected by social pressure when using and reacting to nudges in the social media context. Based on adjusted and new items we ended up with a 4-item scale to measure social norm.

# 4.5 Validity and Reliability

To reduce the measurement errors, it was important to establish a questionnaire high in both validity and reliability (Hair, Black, Babin & Anderson, 2014).

## 4.5.1 Validity

## External validity

External validity explains the generalizability of the study, and whether the effects of the study could be valid for other people and other situations (Hair et al., 2014). External validity is achieved when the findings can be generalized beyond a sample of observers to the population at large (Malhotra, 2010). The questionnaire was posted on our Facebook pages to reach our target group most efficient. To strengthen the external validity, our questionnaire was also posted on the Facebook page "Lilleputthammer" with 17 000 followers. This gave us a sample with greater variation in age, gender, income, profession and education, which enhances the generalizability of the results. Our survey also gave us a relatively big sample size (N=260), and together with the big variation in respondent's demographics, the conclusion from this study is considered to be applicable to other situations.

## Content validity

To achieve *content validity* and to measure our constructs, we examined existing scales from literature in the field, and created new scales where existing scales were lacking. To strengthen the validity of our survey, a professor at BI examined the scales and together the items were adjusted to make sure it covers the intended construct. This strengthens the content validity of our questionnaire and we can be relatively sure that the items included does represent the entire construct that is being measured (Malhotra, 2010). Before sending out the survey, a pretest was run to verify the existing scales, which also strengthens the content validity. Even

though content validity is not sufficient alone in measuring the validity of the scale items, it gives us a good indication of the scale scores and enhance the validity in our study (Malhotra, 2010).

# Convergent and discriminant validity

Construct validity tries to explain what construct the scale is actually measuring, and if it measures what it is supposed to measure (Malhotra, 2010). This type of validity includes convergent-, discriminant- and nomological validity, were we find convergent- and discriminant validity important for our analysis. Convergent validity refers to the degree which two measures of constructs correlate with each other (Malhotra, 2010). This means that it is important to show that measures that are supposed to be related are in fact related. To check convergent validity, we evaluated each latent variable's Average Variance Extracted (AVE). Discriminant validity explains whether constructs that are not supposed to be related actually do not correlate (Malhotra, 2010). It is related to convergent because, to obtain discriminant validity, one must show that measures that should not be related are in fact not related. If the square root of AVE in each latent variable is larger than other correlation values among the latent variables, discriminant validity has been established. Convergent- and discriminant validity will be examined and explained further in the results section, through AVE.

## 4.5.2 Internal Consistency Reliability

Internal consistency reliability explains the reliability of a summated scale where multiple items are assembled to find a total score (Malhotra, 2010). A good way to measure the internal consistency reliability is by calculating the Cronbach's alpha, which is the average of all possible split-half coefficients, and evaluates the consistency of the entire scale (Malhotra, 2010). A Cronbach's alpha of 0.6 or lower shows an unsatisfactory internal consistency reliability. When the Cronbach's alpha is higher than 0.6, it means that the scale produces consistent results when the measurements are repeated (Malhotra, 2010). A possible weakness of Cronbach's alpha is its increase in value when more items are included in the scale, which can make the Cronbach's alpha artificial and inappropriate (Malhotra, 2010). Therefore, we have used the software SmartPLS, which includes the analysis Partial Least Square and Structural Equation Modeling. SmartPLS calculates an alternative measure of reliability, being Composite reliability. This is a measure of reliability,

which is the total amount of true score variance in relation to the total score variance (Malhotra, 2010). Composite reliability has the ability to overcome some of the limitations related to Cronbach's alpha, because construct loadings or weights are allowed to vary (Peterson & Kim, 2013). All reliability results are presented and discussed in the result section.

# **4.6 Survey Pretest**

The questionnaire was pretested to clarify and detect ambiguities and misunderstandings. Respondents (N=10) from a representative sample of people who use social media took part in the pretest. It was a combination of both women and men from 19 to 61 years old. The respondents were given a link to the questionnaire through Facebook, where the final question was "Were there any ambiguities or any questions you did not understand?". Some minor changes, including wording and reformulating questions were done based on feedback from the pretest, but the majority had no trouble understanding the questions that were asked.

## 4.7 Analytical Procedure

Our population of interest was Norwegians using social media, and we therefore created and distributed the survey in Norwegian (Appendix 2). By distributing the questionnaire in the respondent's language, we avoided potential misunderstandings and wording problems. The survey started with a cover letter informing the respondents about the survey and its purpose. They were explained the importance of honest answers, and that all answers would be treated anonymously. To make them relaxed before starting the survey we found it important to present that there were no wrong answers, and that we appreciated every respondent's participation regardless of what they answered.

The questions order in the survey was planned carefully with guidance from our professor. The first questions included information about their use of social media, when they use it and how often. It was important to get insight about the respondent's use of social media, and simultaneously present these questions as a warm-up before starting on questions related to the different construct of our analysis. Further, the respondents were informed that the next questions included

different claims about their use of social media, and they were to specify on a scale from 1-7, how much they disagreed or agreed with these different claims. These questions were related to the research question, and would be very useful when testing our hypotheses (Malhotra, 2010). All constructs with related claims were presented to the respondents one by one.

Finally, questions about the respondent's socioeconomic status and demographic characteristics was presented. These questions included gender, age, education, profession and income, and were important to get an overview of our respondents. We are aware that income and education level is sensitive information, and we chose to create interval answers for these questions. Even though forcing the participants to answer these questions can lead to biased answers, we believe the clear information about anonymity and the interval range in the answers will not create any problems (Malhotra, 2010).

#### 5.0 Results

## **5.1** Characteristics of the respondents

Using social media was a criterion for answering the questionnaire, which was achieved through the survey being distributed on Facebook. The gender distribution of the sample was approximately 80% women and 20% men. The respondents age varied from "15-19" to "65 and older". The largest group were between the age of 25-29 years and consisted of 31.9 % of the respondents, 15.8% were between 15-19 years old and 13.1% were between 30-34 years old. On the other side, the two age groups 60-64 and 65 and older represented only 1.2 %, being the smallest group of respondents. The income was relatively evenly distributed, ranging from a monthly income (before taxes) of 10 000 NOK to above 80 000 NOK. Furthermore, education varied and the largest group, which represented 40.8% of the respondents, were those who had a bachelor's degree as their highest achieved education. 34.2% had high school as their highest achieved education, 16.5% had a master's degree and 8.5% only had primary school. Regarding their occupational status, 63.8% of the respondents had a job, 17.7% were studying with a part-time job and 10.4% were studying without a part-time job. Only 0.8% were retired and 7.3% had other occupational status.

## 5.2 Data Cleaning

All questions in the survey contained forced responses, leading to no missing values in the dataset. On the other hand, 76 of the respondents chose not to complete the survey, meaning these were deleted from the dataset and further analysis. Running scatterplots detected outliers, meaning some observations were distinctly different from other observations (Hair et al., 2014). Duration were tested and respondent number 102 were removed due to a very long response time that was very different from rest of the variables. This respondent used over 40 000 seconds finishing the survey. Using long time completing the survey may influence the respondent's answers, and was therefore removed from the dataset. A 7-point Likert scale were used to measure the items related to attitude and behavior, which limits the possibility of very high or low values. After cleaning the dataset and removing the 77 respondents we ended up with a valid sample of 260 respondents which we used in further analysis.

# **5.3 Description of the dataset**

Variable	Mean	Std. Dev.	Skewness	Kurtosis
FoMO	4.67	1.39	-0.66	0.05
Habits	5.53	1.14	-1.84	4.30
RoT	3.39	1.20	0.10	-0.22
Usefulness	5.11	0.92	-0.60	0.35
Ease of Use	5.52	0.99	-0.65	0.71
ALI	5.08	1.41	-0.63	-0.19
Adoption	3.27	1.27	0.51	0.04
Nudge Hygiene Factor	6.06	0.92	-1.23	2.94
Motivational Nudges	4.88	1.27	-0.53	-0.06
Social Nudges	4.31	1.20	-0.21	-0.26
Threshold		Below 2	-1 to 1	-3 to 3

Table 1: Description of the dataset

## 5.3.1 Mean values for each construct

The means for each construct gives us an indication about the respondent's interest in the different factors. We see that people in general scored highest on Nudge Hygiene Factor (6.06), which can be because internet accessibility is a prerequisite for using social media. Habits also had a high score (5.53), being in line with theory,

stating that online communication can be viewed as an automatic behavior, and that social media is at the top of people's to-do list (Larose & Eastin, 2004; Bicen & Arnavut's, 2015). Both Perceived Usefulness (5.11) and Ease of Use (5.52) had high means, which were expected based on Husa and Kvale's (2009) study, that found both Perceived Usefulness and Perceived Ease of Use suitable to use in a social media context. The other construct also had higher means, all with a mean above 4 except from Adoption and RoT, with scores of 3.27 and 3.39.

#### 5.3.2 Standard Deviation for each construct

To find out how much the respondents answers differ from the mean value, we must look at the standard deviation for each construct. All constructs had standard deviations below 2, indicating most answers are relatively close to the mean value. The lowest standard deviations are for the constructs with the highest means, being Perceived Usefulness (0.92), Ease of Use (0.99), Nudge Hygiene Factor (0.92) and Habits (1.14). This indicates that there are very low dispersions for these constructs, and that respondent's answers are very similar. ALI had the highest standard deviation of 1.41, showing the answers are more disperse for this construct. Overall, as mentioned, all standard deviations were below 2, and we can state that respondent's answers does not differ drastically from the mean for any of the 10 constructs.

#### 5.3.3 Skewness and Kurtosis

It is important to check whether the distribution of the variables differs from the normal distribution. Performing a normality test is very relevant, because the normal distribution of variables can sometimes be an underlying assumption in techniques used in further analysis (Janssens et al., 2008). When analyzing the balance of distribution, we looked at the measures of skewness, while kurtosis presents the "peakedness" or "flatness" of the distribution (Hair et al., 2014). The optimal is to have symmetric distributed data, with kurtosis close to zero, which indicates normal distribution. From Table 1, we see that all constructs are negatively skewed, except from RoT and Adoption which are positive. Negative skewness indicates the distribution is shifted to the right. When looking at the kurtosis measures, we see that FoMO (0.05), Adoption (0.04) and Motivational Nudges (-0.06) have data almost normally distributed. The highest kurtosis values are found

for Habits (4.30) and Nudge Hygiene Factor (2.94), showing a more peaked distribution for these constructs.

## 5.4 Statistical analysis and quantitative analysis technique

The survey was distributed through the research software Qualtrics, and the answers were downloaded and exported to an SPSS file (.sav), and imported to IMB SPSS Statistics 24. SPSS was used because it is one of the most frequently used statistical packages in the marketing research world (Janssens et al., 2008). This program was used for cleaning the dataset, including checking for outliers, extreme responses, missing values, as well as dividing the items into respective factors. SmartPLS was used for further analysis, to estimate the measurement model, including analysis specifying the relationships between the variables as well as the relationship between the latent variables and their observed indicators (Wong, 2013).

# 5.5 Assumptions when performing regression analysis – Multicollinearity

To test our hypotheses, we found it suitable to conduct a regression analysis. A regression analysis is used to explain the variation in one dependent variable as much as possible on the basis of the variation in a number of independent variables, and was therefore relevant when testing our hypotheses (Janssens et al., 2008). All hypotheses, including H1-H8c was tested by using this type of analysis. There are different assumptions that needs to be checked before conducting a regression analysis, one being to make sure there is no multicollinearity (Janssens et al., 2008). It is important to find out whether a variable can be explained by the other variables in the analysis, and therefore we must investigate the variables for multicollinearity (Hair et al., 2014). A multicollinearity problem is present if there is a correlation between two variables of 0.6 or more (Janssens et al., 2008). The Pearson correlation matrix (Appendix 3) shows that we have no correlations over 0.6, indicating no multicollinearity problem. The highest correlation is found between FoMO and Habits, with a correlation of 0.485, which is not higher than the rule of 0.6, showing that there is no reason to believe that one variable can be explained by another.

To be sure of no multicollinearity problem we chose to run a linear regression for all variables. This made us able to analyze the condition index, tolerance and Variance Inflation Factor (VIF). With a condition index under 30, a tolerance of more than 0.3 and VIF below 3 we can state that there is no multicollinearity problem (Janssens et al., 2008). Our regressions showed the lowest tolerance values was 0.672, the highest VIF was 1.489 and the highest condition index was 25.496. Based on these results, we do not experience any multicollinearity, and we can state that no variables in the analysis are closely correlated to one another. This means that we will not experience misleading results due to high correlation between the variables when trying to determine how each independent variable can be utilized to predict the dependent variable.

## 5.6 Exploratory Factor Analysis

To structure our large set of variables, we have conducted an exploratory factor analysis. This gives us the tool for analyzing the relationships among a large number of variables (Hair et al., 2014). The results generated from an exploratory factor analysis are useful when creating the proposed measurement model, and it also strengthen the validity of our study. An exploratory factor analysis groups the highly correlated variables together, which enhances the convergent validity, as only items that are highly correlated within a respective construct will be applied further in the study. One exploratory factor analysis assumption is that all variables must have the same level of measurement, and interval or ratio variables are preferred. Even though all our variables are measured with a Likert scale, which produces ordinal variables, it is found that such scaling does not lead to unreliable results, and we therefore find it appropriate for us to run a factor analysis (Janssens et al., 2008).

A factor analysis is meaningful only if the variables involved are sufficiently correlated to one another (Janssens et al., 2008). To get information about the degree of correlation we looked at Bartlett's Test of sphericity, Keiser-Meyer-Olkin measure of sampling adequacy (MSA) and the anti-image correlation matrix. The Barlett's Test of sphericity was significant at the 0.01 level, meaning there is a high enough degree of correlation between the variables included in the analysis. The anti-image correlation matrix shows the partial correlation between the variables. Our analysis revealed that the partial correlations were close to zero, and we can

state that underlying dimensions does exist, and running a factor analysis is meaningful.

The KMO measure of sampling adequacy statistics is another criterion used to explain the degree of correlation. For a factor analysis to be meaningful at least some of the variables must be explained by other variables (Janssens et al., 2008). The MSA values linked to each variable were all over 0.5, were the lowest was 0.704, meaning the variables could sufficiently be explained by other variables, and does not have to be eliminated. Also, the significant global MSA value of 0.840 shows that making a factor analysis is meaningful as the variables are sufficiently correlated for this analysis (Janssens et al., 2008).

A Principal Component Analysis (PCA) was run for our 10 construct, as they were all measured on the same measurement scale. The first PCA showed a ten-factor structure. When analyzing the loadings for all variables, we experienced two cross loadings, where the item had a loading of 0.510 on factor 4 and 0.528 on factor 5, while the other item cross loaded on factor 7 (0.496) and factor 8 (0.490). These two items were therefore eliminated, as the rule says to eliminate cross loadings greater than 0.40 (Janssens et al., 2008). Two other items had high factor loadings on items they were not supposed to measure, and was also removed. After removing these four items, a new PCA was performed where we also ended up with 10 factors, with a global MSA of 0.826, where the factors could explain 65% of the total variance.

	1.FoMO	2.Habits	3.Nudge H.	4.Motiv. N	5.Social N.
Q6_3	0.797				
Q6_1	0.797				
Q6_2	0.796				
Q6_4	0.660				
Q7_5		0.791			
Q7_4		0.774			
Q7_2		0.679			
Q7_1		0.670			
Q7_3		0.409			
Q13_1			0.779		
Q13_2			0.763		
Q13_3			0.717		
Q14_4				0.766	
Q14_2				0.717	
Q14_1				0.506	
Q15_3					0.777
Q15_4					0.705
Q15_2					0.695
Q14_3				0.510	0.528
Q15_1					0.486

	6.RoT	7.Usefulness	8.Ease of Use	9.ALI	10.Adoption
Q8_5	0.832				
Q8_4	0.791				
Q8_3	0.760				
Q8_2	0.727				
Q8_1	0.721				
Q11_5	0.676				
Q9_3		0.614			
Q9_4		0.577			
Q9_2		0.575			
Q9_1		0.552			
Q9_5		0.496	0.490		
Q10_1			0.775		
Q10_2			0.770		
Q10_3			0.603		
Q12_1			0.447		
Q11_3				0.860	
Q11_2				0.795	
Q11_1				0.792	
Q11_4				0.682	
Q12_3					0.841
Q12_4					0.778
Q12_2					0.432
	I				

Table 2: Rotated Factor Structure

## 5.7 Confirmatory Factor Analysis

After the exploratory factor analysis, it was important to specify the model through a confirmatory factor analysis. The Structural Equation Modeling software SmartPLS was used to conduct this analysis, because of its advanced reporting features and its ability to integrate aspects of principal component analysis with multiple regression (Wong, 2013; Johnson, Gustafsson, Andreassen, Lervik & Cha, 2001). When evaluating the factors obtained from SPSS in SmartPLS, some factors experienced low loadings on some items, even though they were high in SPSS. SmartPLS operates with a different estimation procedure than SPSS, which might be the reason for this result (Johnson et al., 2001). Therefore, two more items were removed from the dataset and not included in further analysis. After necessary items were removed, all factors ended up with items with high loadings above 0.6.

ALI ended up with an upper loading of 0.902 and a lower loading of 0.817, showing very high loadings for all items included in the construct. This is the same for Nudge Hygiene Factor and FoMO, where upper loading was 0.835 and 0.829 and lower loading was 0.803 and 0.801. Adoption and Habits also ended up with all loadings being above 0.7, where Adoption had an upper and lower loading of 0.843 and 0.719 and Habits with upper and lower loadings of 0.879 and 0.777. Perceived Ease of Use ended up with the highest upper loading of 0.915, but with the biggest difference between upper and lower loading, with a lower loading of 0.622. Motivational Nudges and RoT had relatively similar loadings, with upper loadings of 0.892 and 0.881 and lower loadings of 0.696 and 0.696. Social Nudges and Perceived Usefulness were the only two constructs with upper loadings below 0.8. Social Nudges ended up with an upper loading of 0.799 and a lower loading of 0.644, while Perceived Usefulness had an upper loading of 0.783 and a lower loading of 0.641.

Factors	Upper loading	Lower loading	
FoMO	0.829	0.801	
Habits	0.879	0.777	
Nudge Hygiene Factor	0.835	0.803	
Motivational Nudges	0.892	0.696	
Social Nudges	0.799	0.644	
RoT	0.881	0.696	
Usefulness	0.783	0.641	
Ease of Use	0.915	0.622	
ALI	0.902	0.817	
Adoption	0.843	0.719	

Table 3: Factor Loadings

## 5.8 Measurement model

To test the measurement model, it was important to analyze the model's reliability and validity. In the table below all values used are presented, and will be analyzed and elaborated in the following sections.

## 5.8.1 Reliability and Validity

	ALI	Adopt.	EOU	FOMO	Habits	Nudge H	Motiv. N	Social N	RoT	Use- fulness	CA	CR	AVE
ALI	0.838										0.858	0.904	0.702
Adopt.	0.355	0.794									0.704	0.836	0.630
EOU	0.219	0.19	0.781								0.715	0.819	0.609
FOMO	0.265	0.246	0.083	0.825							0.844	0.895	0.680
Habits	0.394	0.219	0.333	0.485	0.816						0.833	0.888	0.66
Nudge H	0.382	0.164	0.216	0.288	0.286	0.824					0.763	0.864	0.679
Motiv. N	0.408	0.311	0.357	0.309	0.358	0.284	0.790				0.698	0.831	0.623
Social N	0.245	0.233	0.193	0.385	0.185	0.205	0.337	0.729			0.710	0.818	0.53
RoT	0.018	0.257	0.048	0.043	-0.022	-0.006	0.062	0.015	0.781		0.843	0.886	0.610
Usefulness	0.196	0.288	0.290	0.255	0.327	0.186	0.307	0.202	0.294	0.712	0.512	0.754	0.50
Threshold	√AVE<	correlati	on								< 0.70	< 0.70	< 0.5

Table 4: Measurement model showing Fornell-Larcker Criterion, Cronbach's Alpha Average, Composite reliability and Variance Extracted.

# Internal consistency reliability

To evaluate the internal consistency reliability, we looked at Cronbach's alpha and composite reliability. A Cronbach's alpha above 0.6 is desirable, indicating high internal consistency reliability (Janssens et al., 2008; Malhotra, 2010). As seen in

Table 4, all constructs except Perceived Usefulness have a Cronbach's Alpha being above the threshold of 0.6. This indicates that all these constructs have a high internal consistency reliability. Perceived Usefulness has the lowest Cronbach's alpha, being 0.512 which is below the threshold of 0.6.

Since Cronbach's alpha is considered to be a somewhat conservative measurement in PLS, it was important to evaluate the composite reliability scores, as it has the ability to overcome some of the limitations related to Cronbach's alpha, because construct loadings or weights are allowed to vary (Peterson & Kim, 2013). For composite reliability, the desirable threshold is above 0.7 (Janssens et al., 2008). Perceived Usefulness had a Cronbach's alpha of 0.512, which can be due to the possible weakness of Cronbach's alpha related to the increase in value when more items are included in the scale. This may lead to an inappropriate value, which might be the case for Perceived Usefulness. As it was important to include only constructs with a relatively high internal consistency reliability, it was necessary to check composite reliability, to evaluate if Perceived Usefulness were to be included further in the analyses. When looking at the composite reliability score for Perceived Usefulness it had a value of 0.754, being above the threshold of 0.7. This indicated that Perceived Usefulness had a sufficient internal consistency reliability and could be used further. All other constructs had high composite reliability, with ALI being the highest with a score of 0.904, and we can state that the model has high internal consistency reliability. This means that the items that are meant to measure the same construct are highly correlated, and are likely to give the same answers if measurements were to be performed several times (Hair et al., 2014).

## Convergent validity

It is also important to look at the convergent validity to see if two measures of the constructs correlate with each other (Malhotra, 2010). When assessing the convergent validity, the Average Variance Extracted (AVE) was determined by looking at each of the construct. An AVE of 0.5 or above indicates adequate convergent validity (Malhotra, 2010). All the constructs show an AVE above the threshold of 0.5, where Perceived Usefulness has the lowest AVE of 0.507 and ALI has the highest with an AVE of 0.702. This indicates that the latent construct accounts for more than 50 percent of the variance in the observed variables, and that all our constructs demonstrate sufficient convergent validity. This means that

our items intended to measure the same construct are highly correlated, and thus does demonstrate convergent validity.

## Discriminant validity

It is necessary to check for discriminant validity, which explains whether constructs that are not supposed to be related have sufficiently low correlation. It is accomplished when the square root of AVE is greater than the correlation coefficients (Malhotra, 2010; Fornell and Larcker, 1981). When looking at the results from table 4, it shows that all of our constructs have greater square root of AVE than the correlation coefficient of other constructs. The highest square root of AVE if for ALI, with a square root of AVE of 0.838, being much higher than the correlations with other construct. We do not experience any low square root of AVE, with the lowest being for Perceived Usefulness, with a square root of AVE of 0.712. This is also a high score, and it shows no correlation with non-related constructs. This indicates that discriminant validity is well established for all constructs, meaning the constructs that are not supposed to be related actually are unrelated.

## 5.9 Path model accuracy, effect size and predictive relevance

It is important to explain the endogenous latent variables variance, and therefore the key target constructs level of  $R^2$  should be high (Hair, Ringle & Sarstedt, 2011). In addition to  $R^2$  we found it relevant to analyze the model's capacity to predict. This is done by looking at  $Q^2$ , being the predictive relevance for each endogenous latent construct indicators (Hair et al., 2011). Checking the models effect sizes was also found to be relevant, because it can help assessing the overall contribution of the study.

## Path model accuracy

The R<sup>2</sup> value for the endogenous variables tells us how much of the variation in the dependent variable that can be explained by the variation in the independent variables (Janssens et al., 2008). A R<sup>2</sup> value over 0.25 is considered high, which indicates the independent variables have sufficient accuracy and relevance of the dependent variable (Cohen, 1992). The PLS path modeling estimation shows that R<sup>2</sup> for ALI is 0.294, which means that the five latent variables Habits, FoMO,

Nudge Hygiene Factor, Motivational Nudges and Social Nudges explain 29.4% of the variance in ALI (Wong, 2013). The inner model path coefficients showed that Nudge Hygiene Factor had the strongest effect on ALI (0.234), while Motivational Nudges (0.234) and Habits (0.230) had the second and third strongest effect. Social Nudges (0.078) and FoMO (-0.002) had the lowest effect, and were not significant. Perceived Ease of Use, Perceived Usefulness, FoMO, ALI and RoT explain 27.7% of the variance in Adoption, where ALI (0.288) and RoT (0.206) had the strongest effects, followed by Perceived Usefulness (0.134) and FoMO (0.125). Perceived Ease of Use had the lowest effect (0.016) and the effect were not significant. For the last dependent variable, RoT, it was clear that while ALI have a strong effect on Adoption, it does not explain anything of the variance in RoT, with a R<sup>2</sup> of 0.000 (0%). RoT is a complex construct, and levels and measurement scales are not yet well established. Based on these results, other constructs than ALI will have an effect on the variance in RoT.

#### Predictive relevance

By evaluating the Stone-Geisser's (Q<sup>2</sup>) values we can find the predictive relevance between the variables. Q<sup>2</sup> values of 0.02, 0.15 and 0.35 indicates that an exogenous construct has a small, medium and large predictive relevance on an endogenous variable (Wong, 2013), meaning higher Q<sup>2</sup> value indicates greater path model predictive relevance (Hair et al., 2014). ALI and Adoption have Q<sup>2</sup> values of 0.186 and 0.122, showing satisfactory predictive relevance, while RoT have a negative Q<sup>2</sup> value of -0.001, meaning RoT have very little predictive relevance. This indicates that the data for ALI and Adoption can be reconstructed with the help of the model and the PLS parameters, and that these constructs are able to adequately predict each endogenous latent construct's indicators (Akter, D'Ambra & Ray, 2011; Hair et al., 2011).

# Effect size $(f^2)$

The model's  $f^2$  effect size was also examined, and it explains how much an exogenous latent variable contributes to an endogenous latent variable's  $R^2$  (Wong, 2013). This value explains the strength of the relationship between the variables, which is important to know in addition to analyzing if the relationship is significant.  $F^2$  effect sizes of 0.002 indicates small effect, while 0.15 is medium and 0.35 indicates large effect (Wong, 2013). The results from SmartPLS explaining the

inner model path coefficient size with respective  $f^2$  effect sizes shows that ALI (0.095) and RoT (0.050) has the highest effect on Adoption, while FoMO (0.018) and Perceived Usefulness (0.018) has moderate effect, and Perceived Ease of Use (0.000) has no effect. The  $f^2$  effect size for FoMO (0.000) on ALI is also very low, which is the case for Social Nudges (0.006) as well. The variables with the highest  $f^2$  effect sizes on ALI are Habits (0.052), Motivational Nudges (0.060) and Nudge Hygiene Factor (0.068). The  $f^2$  size effect of ALI on RoT is very low (0.000), indicating no effect, which is the same for RoT on ALI (0.000).

# 5.10 Structural path coefficient and hypothesized effect

The results from the analyses is illustrated in table 5 below, showing the path coefficient, t-statistics and the significant level. The results showed that the effect of Perceived Ease of Use on Adoption was not found to be significant, with a beta coefficient of 0.016 and a t-statistics of 0.211. This gave us a non-significant pvalue (0.833>0.100), meaning H1 was not supported. Perceived Usefulness had a strong positive effect on Adoption, with a beta coefficient and t-statistics of respectively 0.134 and 2.333. By looking at the p-value, it was found to be significant (0.020<0.050), hence, H2 was supported. The hypothesized path between ALI and Adoption has a beta coefficient of 0.288, with a significant t-value (5.072) at the 0.01% level (p=0.000), meaning H3 was supported. When investigating the effect of FoMO on ALI, the path coefficient of -0.002 and tstatistics of 0.031 showed a clear non-significant p-value (0.975>0.100), and we did not find support for H4a. Further, we find support for H4b, showing FoMO, with a path coefficient of 0.125, and t-statistics of 1.905 to have a significant direct effect on Adoption at the 0.10% level (0.057<0.100). The effect of ALI on RoT were not found to be significant, indicating that ALI does not have a positive effect on RoT. This came clear when looking at the beta coefficient (0.018) and t-statistics (0.269), which revealed a non-significant p-value (0.788>0.100). This means that H5a was not supported. Further, when investigating the alternative hypothesis, the effect of RoT on ALI showed a path coefficient of 0.009 and t-statistics of 0.174, giving us a non-significant p-value (0.862>0.100), meaning H5b was not supported.

The effect of RoT on Adoption gave us a beta coefficient of 0.206, with a t-value of 3.765. The results showed a clear significant direct effect of RoT on Adoption

(0.000<0.01), and we can state that H6 was supported. The hypothesized path of Habits on ALI had a path coefficient of 0.230, and the t-statistics of 3.346 gave us a significant p-value (0.001<0.010), meaning we find support for H7. Nudge Hygiene Factor also showed to have a strong positive effect on ALI, where we got a path coefficient of 0.235, t-statistics of 3.855, and a significant p-value (0.000<0.010). Therefore, we find support for H8a. Furthermore, the results revealed that the effect of Social Nudges on ALI did not have any direct effect. The path coefficient (0.076) and the t-statistics (1.275) gave us a non-significant p-value (0.202>0.100), hence H8b was not supported. The effect of Motivational Nudges on ALI was also found to be significant. The path coefficient of 0.234 and the t-statistics of 3.519 gave us a clear significant p-value (0.000<0.010), and we can state that H8c was supported and that Motivational Nudges have a direct positive effect on ALI.

Path	Path coefficient	T-Statistics	Sig.
Ease of Use → Adoption	0.016	0.211	0.833
Usefulness → Adoption	0.134	2.333	0.020**
ALI → Adoption	0.288	5.072	0.000*
FoMO → ALI	-0.002	0.031	0.975
FoMO → Adoption	0.125	1.905	0.057***
ALI → RoT	0.018	0.269	0.788
RoT → ALI	0.009	0.174	0.862
RoT → Adoption	0.206	3.765	0.000*
Habits → ALI	0.230	3.346	0.001*
Nudge Hygiene Factor → ALI	0.235	3.855	0.000*
Social Nudges → ALI	0.076	1.275	0.202
Motivational Nudges → ALI	0.234	3.519	0.000*

<sup>\*\*\*</sup>Significant at the 0.10% level \*\*Significant at the 0.05% level \*Significant at the 0.01% level

Table 5: Structural paths and effect of hypotheses

# 5.11 Summarized main findings

The main results from our study are summarized in table 6 below, showing that we find support for seven out of twelve hypotheses, while five of the hypotheses were not supported.

Hypothesis	Results
H1: Perceived Ease of Use has a positive effect on Adoption of social media technology	Not supported
<b>H2:</b> Perceived Usefulness has a positive effect on Adoption of social media technology	Supported
<b>H3:</b> Always Logged-in has a positive effect on Adoption of social media technology	Supported
<b>H4a:</b> Fear of Missing Out has a positive effect on being Always Logged-in	Not supported
<b>H4b:</b> Fear of Missing Out has a positive effect on Adoption of social media technology	Supported
<b>H5a:</b> Always Logged-in has a positive effect on Return on Time	Not supported
<b>H5b:</b> Return on Time has a positive effect on being Always Logged-in	Not supported
<b>H6:</b> Return on Time has a positive effect on Adoption of social media technology	Supported
H7: Habits has a positive effect on being Always Logged-in	Supported
<b>H8a:</b> Nudge Hygiene Factor has a positive effect on being Always Logged-in	Supported
<b>H8b:</b> Social Nudges has a positive effect on being Always Logged-in	Not supported
<b>H8c:</b> Motivational Nudges has a positive effect on being Always Logged-in	Supported

Table 6: Summary of the hypotheses

#### 6.0 Discussion

There has been published an extensive number of studies about adoption of technology in the academic literature. Social media usage among consumers are growing at a steady pace, and it has become a big part of our lives. Social media has not only changed the way consumers communicate with each other, but also changed the way firms do business and communicate with their customers. The main interest of our study was to investigate possible drivers of ALI and how ALI, RoT and FoMO influence Adoption of social media technology. The findings would act as a supplement to existing literature in the field of social media adoption. Although we know there are many users of social media, the literature did not clearly show the reasons why people adopt new social media technologies. Our research framework was based on several theories and literature in the field of consumer behavior and marketing. We wanted to establish a model that could explain how ALI, RoT and FoMO affect consumers Adoption of social media

technology and find out how Habits, FoMO, Nudge Hygiene Factor, Social Nudges and Motivational Nudges act as drivers of ALI. 7 out of 12 of our hypotheses were supported, and the findings are able to provide new and meaningful findings to the field, giving us a better understanding of the area of consumers' social media adoption and its drivers. In the following section, a comprehensive discussion of the framework will be presented to understand and interpret the results and show what this study can bring to light. How the study can be of interest to others wanting to do further research in the field of social media technology will also be presented.

# **Drivers of Always logged-in**

We experienced surprising results regarding the relationship between FoMO and ALI. Based on literature and our own expectations, FoMO was expected to influence ALI. The results from the survey showed the opposite, indicating that FoMO does not have a positive effect on being logged in on social media. The path coefficient was slightly negative (-0.002), with the highest p-value among all expected antecedents of ALI. From the results, it was clear that people's fear of missing out on something important and desire to stay connected with what others are doing did not lead to more time spent on social media. FoMO had relatively high mean values (M=4.67), giving us an indication that are afraid to miss out on positive experiences, but the results showed it does not lead to people being always logged in to social media. A reason for this could be that people do not depend so much on social media to not miss out on positive experiences, and do not feel the need to always being logged in. Even though they are afraid of missing out on experiences, people might believe they will get the information from other sources, and that social media is not a crucial platform for not missing out. As social media is a tool to use for not missing out, they might use other methods than social media to avoid missing out on experiences. Having FoMO might also be related to the experience itself, and not which platforms are used to avoid it, being a possible reason for the results. The experiences itself are usually not on social media, and therefore consumers can link having FoMO to the physical experience and not the tool used to avoid missing out.

Based on theory we proposed that both Habits and FoMO can act as antecedents of ALI, and thus have a positive effect on being always logged in on social media. The

result from the survey clearly showed that consumer Habits has a positive effect on ALI, demonstrating that being logged in on social media is an automated behavior that is a part of consumer's routine, leading to an increased time spent on social media. Ang's (2016) findings argue that increased habit strength leads to increased time spent on these platforms. This was confirmed in our survey, showing the direct significant effect of Habits on ALI. As habits are behaviors formed by repeating the behavior frequently, it is reasonable to believe that the increased importance of social media has led to frequent usage, leading to the use of social media to become an automated behavior among consumers. When the use of social media becomes a behavior stored in memory, consumers use will likely increase, as it does not require any conscious guidance to be performed. It is likely that the habit strength related to social media usage will maintain or increase due to the importance of social media in the society, and therefore, it is expected to influence consumers time spent on social media also in the future.

As mentioned, nudge in the social media context is a relatively new construct with little research on. Existing literature in the field showed that it was relevant to split nudging into three dimensions to get a deeper understanding of the different parts of the construct. The study showed a significant relationship between internet connections and its effect on people being always logged in. We hypothesized that Nudge Hygiene Factor has a positive effect on ALI, which was supported by the study. This construct consists of relatively obvious statements about today's technology possibilities, and is not related to individual's behavior, which can be a reason for the high mean score for this construct. Even though this is a good result, the findings were expected because internet is a prerequisite for using social media and being online. Internet need to be present for people to use social media, which was clearly supported by this result. Not having access to internet limits the possibility of being logged in on social media, and makes it impossible to be logged in.

An interesting finding from the study was the non-significant effect of Social Nudges on ALI. The mean value of 4.31 shows that consumers think significant others expect them to use social media, but the hypothesis test showed that it does not lead to ALI. This means that even though consumers feel pressure from others to be logged in on social media, it does not necessarily lead to being always logged

in. This was quite surprising results, as the literature showed the subjective norm to have a positive effect on intention to use and react to nudges in social media (Lu et al., 2009), and that people feeling high pressure from others are likely to be active users of social media (Pelling & White, 2009). Our findings were not in line with the literature, and we can not state that Social Nudges has a positive effect on ALI. This means that people do not feel pressured to being always logged in by significant others, and even though they think significant others expect them to, they do not spend more time on these platforms. How much time to spend on social media is an individual's own decision, and it is likely to be affected by external environments. These external effects might be related to socializing and communication you achieve by using social media, and not to what you believe others expect you to do. These results show that consumers use social media mostly due to its benefits and what can be achieved by using it, and not as much because of the social norm.

However, Motivational Nudges was found to have a direct positive effect on ALI. This shows that people's use of nudges could be influenced by their motivation rather than pressure from significant others, which was also proven in our analysis, were Social Nudges did not have a significant positive effect on ALI. People want to be in charge of whom they communicate with and when to receive notifications, and their motivation to react and use nudges influence their time spent on social media. As mentioned, the literature clearly shows that consumer's motivation for using nudges in social media is to socialize and to communicate with others, being in line with our findings, as it seems like consumers are more influenced by what they can achieve by using social media technologies, and not as much because they think others expect them to be logged in (Leung, 2001; Quan-Haase & Young, 2010). Based on our results, using social media lets people socialize and communicate with each other, which enhances their motivation to use social media technologies, leading to being always logged in.

We found it important to evaluate all three dimensions together to better get an understanding of how the whole construct of Nudging affect ALI. It came clear that consumers are always logged in on social media platforms because of their motivation related to socialization and affection, and not as much because they feel pressure or believe significant others expect them to be logged in. Literature showed

that consumers use social media because "everyone else" is using it, which increased their motivation for usage. This shows that significant others can have a positive effect on ALI, not because consumers feel pressured or believe their behavior is expected by others, but because of their own motivation.

#### Perceived Ease of Use and Perceived Usefulness influence on Adoption

Perceived Ease of Use was hypothesized to have a positive effect on Adoption of social media technology, and literature in the field clearly showed that Perceived Ease of Use could act as a predictor for social media technology (Husa & Kvale, 2009). Our findings showed the opposite of what we expected, meaning Perceived Ease of Use does not influence the intention to adopt social media technology. A possible reason for Perceived Ease of Use not having a positive effect on Adoption of social media technology can be due to people's knowledge about new social media technologies and familiarity of how to use it. By looking at Kim et al.'s study (2008) it was presented that people with existing knowledge of how to use technology may not need much additional information to adopt new technology, being a possible reason why our hypothesis was not supported. As social media has become widely used among consumers, people have existing expertise of how to use the technology and therefore the level of user-friendliness will not influence Adoption of social media technology.

Furthermore, Perceived Usefulness was found to have a positive effect on the Adoption of social media technology. The results show that Perceived Usefulness has a positive effect on the Adoption of social media, meaning people who believe using this particular social media technology would enhance his or her performance are more likely to adopt. This is in accordance with the literature, which clearly states that Perceived Usefulness is an important determinant of a user's intention to adopt and use a particular social media (Rauniar et al.,2014; Lin et al., 2007, Kim et al. 2008). We see that people in general feel that social media is a useful tool, with a mean value of 5.11. This clearly shows that social media technologies can be described as technologies high in Perceived Usefulness, and when consumers believe a social media technology is useful they are more likely to adopt. Perceived Usefulness as a construct in the social media context today can most likely be related to how easily the technology lets consumers communicate with friends and

family, and the easy access to information. These are gratifications related to use of social media, which are parts of social media technology's Perceived Usefulness, leading to increased intention to adopt social media technology.

## ALI's effect on Adoption of social media technology

A big part of our research question was to analyze how ALI affect Adoption of social media technology. In the hypothesis, it was proposed that ALI had a positive effect on Adoption on social media technology, and after analyzing the results from the survey, it was clear that the hypothesis was supported. This means that people who are always logged in on social media are likely to adopt new social media technologies. The findings are in line with the literature saying that people are always logged in because they seek social interaction and want to access information everywhere and at any time. They will most likely start using other platforms as well, if these platforms let them communicate with others and get access to information easily (Whiting and Williams, 2013).

The clear results from our analysis showed a strong positive effect of ALI on Adoption, meaning we can state that people who are always logged in on social media platforms will have a high intention to adopt new social media technologies. Numbers from statistical data show an increase in both time spent on social media and number of platforms used by consumers, being in line with our results (Nielsen, 2016; TNS Gallup, 2015; Ipsos, 2016). In the future, there are reasons to believe that as more people become always logged in, they will most likely adopt new social media technologies. Consequences of being always logged in may not only be positive, as it can lead to people missing out on physical relations because they spend all their time being logged in. The increase in use can lead to people becoming more dependent on social media in their daily life, leading to an increase in people being always logged in also in the future. The clear evidence showing the positive effect of ALI on Adoption indicates that it is important to create social media technologies that lets people communicate and get access to information easily, as this leads to being always logged in, and further will adopt new social media technologies.

## RoT's effect on Adoption of social media technology

There was limited literature on RoT when we started investigating its effect on Adoption, but the research of Andreassen et al. (2015) clearly showed the construct of RoT was relevant to study further. Based on existing research, we proposed that RoT would have a positive effect on Adoption of social media technology. This study confirmed a strong significant relationship between an individual's RoT and Adoption of social media technology, giving support for our hypothesis. According to the results from the survey, we found a strong positive effect, where individual's RoT has a positive direct effect on the intention to adopt new social media technology. The result from the survey showed a path coefficient of RoT to Adoption of 0.206 and a t-value of 4.083, which clearly shows that there is an effect of RoT on intention to adopt social media technology. This means that people wanting to fill their time with optimal number of self-fulfilling experiences can lead to Adoption of social media technology.

It was found in previous research that using social media can make consumers feel they free up time, and the use give individuals opportunity to spend time on activities that makes them happy and feeling well. This can be linked to our findings, which showed that consumers aware of social media's attributes regarding time saving and time spending are likely to adopt new social media technologies. As defined in the study of Andreassen et al. (2015), RoT is found to be an important phenomenon regarding consumer's needs. Our results show that consumers might choose to adopt social media technology to be able to cover the need of spending time on self-fulfilling activities. Spending time on social media can make people more efficient and effective, which can lead to increased time spent on other activities. Therefore, social media technologies will most likely be adopted by people wanting RoT because of social media's benefits regarding efficiency and effectiveness, giving people more time to spend on activities they find enjoying and important.

## Understand how RoT is influenced by ALI and how ALI is influenced by RoT

We found it important to investigate if the two phenomena ALI and RoT could have a positive effect on each other. We proposed two hypotheses, with one as an alternative hypothesis. This means if there is a positive effect in one direction, there will be no positive effect in the opposite direction. First, we proposed that ALI has a positive effect on RoT, but the results from our survey showed no significant direct effect. This demonstrates that people being always logged in on social media does not lead to a feeling of return on time spent. Our results revealed that always being logged in on social media does not lead to enhanced well-being, in terms of people achieving return on time spent. This shows that even though being always logged in can be beneficial in many cases, it can also have some negative consequences. With the increase in use of social media technology, it is important to be aware that the use does not necessarily increase their well-being or lead to RoT.

As there was no significant effect of ALI on RoT, we also proposed a hypothesis to investigate if RoT could have a positive effect on ALI. The results showed no significant effect for this relationship either, giving no support for our hypothesis. This means that even though people experiencing return on time spent, they are not more likely to be always logged in. The literature found people experiencing well-being and enjoyment to have a strong influence on the use of social media sites (Lin & Lu, 2011), but our results showed that it does not necessarily leads to increase in time spent on social media, nor make consumers stay always logged in. It is reasonable to think that consumers experience more return on time spent and well-being when their time is spent on activities they enjoy with people they care about. These experiences will most likely not be on social media, and therefore, time spent on social media does not increase for consumers experiencing RoT.

## **Identify how FoMO affect Adoption of social media technology**

The study confirmed a significant effect of FoMO on Adoption of social media technology. The results were in accordance with predictions based on literature on this topic, showing a link between FoMO and engagement in social media (Przybylski et al., 2013; Larkin & Fink, 2016). This indicates that people high in FoMO are afraid they will miss out on relevant information, social activities and their social network if they do not use social media. By adopting new social media technologies, they can get access to relevant information and social networks, reducing the chance of missing out on something they find important. As social media makes it easy for people to communicate with each other, mainly because

there are many users leading to much information in one place, it be an attractive tool to gather information more efficient and not miss out on activities important to them.

## **Concluding remarks**

This paper has taken a deep dive into the area of social media technology, and achieved its main goal of looking into the drivers of ALI and how ALI, RoT and FoMO affect consumer's Adoption of social media technology. It has been affirmed that ALI, RoT and FoMO have a positive effect on Adoption of social media technology.

Further, when investigating the drivers of ALI, Habits was found to have a positive effect on ALI, while FoMO was proven to not have a positive effect, which were opposite results of what we expected. The new construct Nudging gave us mixed results, were Motivational Nudges had a positive effect on ALI, while Social Nudges had no positive effect. Nudge Hygiene Factors had a strong positive effect on ALI, being in accordance with our expectations, due to internet being a prerequisite for using social media.

#### 6.1 Managerial and theoretical implications

How Nudging and its different dimensions affect ALI is to a large extent a theoretical contribution, as this construct is relatively new to the social media and marketing literature. We investigated and divided Nudging into three dimensions to get a deeper understanding of the different parts of the construct, while simultaneously determined the positive effect Nudging has on always being logged in. Our study was able to enlighten new and important findings in the marketing literature that can explain how consumers are being affected by Nudging and how it influences their behavior on social media. The findings are relevant and can be used by researchers who want to investigate and build further on the construct of Nudging. Our contribution of theory to the nudging literature is highly valuable, as it highlights the importance of understanding nudging in the social media context, which clearly shows the need for future research on this construct.

The managerial contribution of this research can be divided in two, as it can be of importance for both social media developers and innovators, as well as managers

and companies who want to use social media to communicate and reach out to existing and future customers.

This thesis brings knowledge to developers of social media technologies and how they can improve the attractiveness of new social media development and innovations. As we were able to draw some conclusions about how ALI, RoT and FoMO has an effect on Adoption of social media technology, the findings from this research can help companies to better align their social media technology innovations to meet consumer's needs, as it gives a deeper insight into why consumers adopt and use social media technologies. By understanding how the phenomena ALI, RoT and FoMO affect consumer's intention to adopt new social media, developers can achieve an advantage over competitors in the social media industry by using these findings when creating new social media technologies. Developers should take the characteristics of ALI, RoT and FoMO into consideration when developing new social media, making them able to direct its innovations in regards to customer's needs, leading to creation of relevant technologies consumers are more likely to use.

As RoT has a positive effect on Adoption of social media technologies, innovators should create products that can help people becoming more efficient, as this makes consumers able to spend time on activities they believe is important for them. Based on the findings from our study this will increase the likelihood of adopting social media technologies. ALI and FoMO also had a positive effect on Adoption of social media technology, and therefore innovators should create social media technologies that makes people engage and stay logged in on social media. ALI and FoMO are phenomena working in tandem, and new innovations should take both these phenomena into consideration. New social media technologies should give consumers easy access to information whenever and wherever, helping them become more efficient and reduce their fear of missing out on information and activities. Knowing which attributes are important for consumers when adopting new social media technology is beneficial and will be an advantage when trying to create successful innovations in the future. As there are many competitors in the market, developers need to stick out from the crowd, and must understand what consumers find important when deciding to adopt social media technologies.

Therefore, RoT, ALI and FoMO should be taken into consideration when creating new social media technology innovations.

The drivers of ALI will be of interest for companies who want to understand why consumers are always logged in and how to better reach out and communicate with their current and potential customers. By integrating the findings from this study, companies can communicate and engage with consumers more efficiently through social media. This research shows managers which constructs that have an impact on why people are logged in on social media. Managers can use the information and knowledge to make their social media platforms more attractive for consumers by meeting their needs, which also can be beneficial for the firm. Consumer habits does influence being always logged in on social media, and therefore, companies should take advantage of this to make consumers stay logged in. When individuals spend more time on social media, it is easier to reach out to them and communicate their own brand, which can enhance the company's performance. By trying to interact with people in a way that makes them use social media automatically will likely lead to being always logged in. Companies should communicate with consumers regularly, which enhances the likelihood of social media becoming a habit.

Our findings can also be important for managers wanting to influence people's decision making without forcing them towards a certain behavior. Using nudges can be a tool for companies to remind people and lead them in a desired direction. Motivational Nudges was found to make consumers always logged in, and therefore, reaching consumers on social media by posting messages that includes notifications makes them more likely to stay always logged in. When knowing a person's individual motivation leads to use and reaction of nudges, companies should use nudges through notifications in different ways to reach their consumers. Individual's motivation for reacting and using nudges are mostly related to socialization and affection, which are something companies should have in mind when communicating and creating engagement about their brand and products. Our findings showed that this likely leads to reacting and use of nudges, leading to being always logged in, which can increase the traffic on companies' social media pages and enhance the performance of the brand.

## 7.0 Limitations and further research

In the next sections limitations and further research will be discussed. Some of the research in this paper is relatively new and further research is important to get an even deeper understanding of the construct.

#### 7.1 Limitations

When data was collected, it was based on convenience sampling, leading to possible limitations regarding external validity. When using convenience sampling, there are some threats about the results not being representative for the entire Norwegian population. Even though we tried to minimize the threat by posting the survey on Lilleputthammer's Facebook page in addition to private Facebook pages, we are aware that external validity can become weakened based on the sampling technique chosen. When investigating social media in the Norwegian market, the results might not be applicable for the rest of the world. In Norway, 97% of the population have access to internet, making it reasonable to believe people in general are more logged in on social media, have a higher desire to achieve RoT and have a higher FoMO than people in countries where less people have access to internet. This means there might be cultural differences that can make the phenomena investigated in this paper more relevant for countries with easy access to internet. The respondents from our survey consisted of 80% women and 20% men, being a possible limitation regarding their answers. Even though we do not expect drastically different answers due to gender, women and men might have slightly different perception of how they are affected by the construct investigated in this study.

When investigating consumer's behavior, we are aware that a gap can arise between what people answer in the survey and their underlying beliefs. Even though using social media is common among people, they can be afraid or embarrassed to report their actual use. They might not even be aware of their actual use of social media, and believe they answer truthfully, but in reality they are influenced by ALI, RoT and FoMO more than they know. This may have led to a lower mean score for our constructs than what is true, which might have affected the results of our hypotheses. Still, based on our relatively high mean scores, it is reasonable to

believe consumers have answered relatively true, and this has most likely not influenced our results to a great extent.

We experienced surprising results on some of our hypotheses. Previous research in the field showed strong support for these hypotheses, and it is therefore questionable whether the constructs questions were formulated poorly and misunderstood by those who answered the questionnaire. This was the case for FoMO, where FoMO was found to have no positive effect on being always logged in. We find this result surprising since FoMO was presented as a phenomenon working in tandem with always logged in (Andreassen et al., 2015). As such, the results might have been different if the questions were formulated differently. We are aware that Nudging most likely consists of several dimensions beyond what has been covered in this study. Therefore, the construct requires a deeper investigation to get a more thoroughly insight into the nudge construct and what it consists of. This might have been a limitation, as we were not able to cover the whole construct of how nudging influence being always logged in. The three dimensions mentioned in this paper gave us new and interesting insight about how nudging in the social media context influence being always logged in, but there are still several dimensions that needs to be investigated further, to get a better understanding of the whole construct.

#### 7.2 Further research

As social media usage is likely to increase in the future, it is important to get an even deeper understanding of the area within adoption of social media technology. We have only investigated some constructs in the area, and it is important to do more research on other relevant construct when trying to understand how and why consumers adopt new social media technology. ALI and RoT were first developed as consumer trends, but are now together with FoMO presented as phenomena when explaining consumer behavior. For further research, it can be interesting to investigate whether there are some new developing trends in the market that can have an influence on Adoption of social media technology. As ALI and RoT are not considered trends anymore, new trends occur in the market which can explain consumer behavior. How consumers are being influenced by these trends can be valuable insight for managers in the field of social media technology.

Further investigation of FoMO can be of importance due to the weak results in this study. If FoMO were to be studied further, the questionnaire might be formulated differently or the effect of FoMO could be analyzed against other constructs. From this study, we know that consumers do have the fear of missing out on experiences they feel are valuable, but with no positive effect on being always logged in, it would be interesting to see if there are some other constructs FoMO does have an influence on in the social media context. As FoMO has become such a strong phenomenon when explaining consumer behavior, it is reasonable to believe it will be of high importance for managers, as well as it can lead to theoretical contributions as well. It would also be of interest to investigate if there are any mediating effects affecting the relationship between FoMO and Adoption. From our results, we saw that FoMO had a positive effect on Adoption on a 10% level, but it would be interesting to see if the effect would become stronger if a mediating variable like for example ALI would be included. This would give a greater understanding of the construct of FoMO and how it affects adoption of social media technology.

Due to Nudging being a new construct in the social media and marketing literature, we were not able to cover the whole construct when investigating its effect on being always logged in. For further research, it would be highly interesting to study what other dimensions nudging consists of. This will give us a greater understanding of the construct as a whole, and how it affects consumers. From our results, we see clearly that consumers use and react to nudges, showing the relevance to study this even further. This research only investigated how the three different dimensions of nudging affected being always logged in, but when the construct and its dimensions is understood better it would be of importance to study the effect of nudging on other constructs, like RoT and FoMo. Based on literature and consumer's behavior on social media, it is reasonable to believe that nudging has an effect on other constructs than ALI. It can also be reasonable to divide nudging into different dimensions when studying it further, as we experienced mixed results for our dimensions. Nudge Hygiene Factor and Motivational Nudges had a positive effect on being always logged in, while Social Nudges did not have a positive effect. This indicates that the dimensions of nudging might be different from each other and must be analyzed separately also in the future to get a deeper and better understanding of what nudging consists of and how it affects consumer's behavior.

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# 9.0 Appendices

Appendix 1: Operationalization

FoMO	O Q6: Paulsen, M., & Leistad M. 1						
FoMO	I'm afraid	Paulsen, M., & Leistad M. M. (2012).					
	to miss out on something if I do not use social media to miss out on relevant information if I do not use social media to miss out on social activities if I do not use social media of not being part of my internet-based social network (eg. Facebook, LinkedIn, Twitter, etc.)						
Habits	Q7:	LaRose, R., & Eastin, M. S.					
	Social media is part of my daily routine  I would miss social media if I could not use it anymore	(2004). Bicen, H. & Arnavut, A. (2015). Paulsen, M., & Leistad M. M. (2012).					
	Although I try to minimize time spent on social media, I do not succeed	(===)					
	Using social media is something I do often (more than twice a day)						
	Using social media is something I do automatically, without thinking about it						
RoT	Q8: Social media lets me	Dybdal-Holthe, A & Mollerud, A. (2016).					
	be effective and save time wherever I canspend time on activities I think is meaningful get something left for the time I use on this service take advantage of my time in a good way make the most of my time						
Perceived Usefulness	Q9: Social media is a good channel for learning about products and services I'm interested in	Husa, A., & Kvale, M. (2009).					
	Social media is a good channel for being aware of events						
	Social media makes let's my opinions be heard by friends / acquaintances / family						
	Social media is a good channel for dialogue with friends / acquaintances / family						

	In general, I think social media is a useful channel for me as a user				
Perceived ease of use	Q10: Communication with others through social media works	Husa, A., & Kvale, M. (2009).			
	more convenient than through other communication channels faster than through other communication channels more informal than through other communication channels				
ALI	Q11: It is important to always have access to the Internet	Kolb, D. G., Caza, A., & Collins, P. D. (2012). Paulsen, M., & Leistad M. M. (2012).			
	In general, I am always connected to the Internet	(===)			
	Generally, I need access to the Internet anytime and anywhere				
	I feel satisfied when I have Internet access				
	The use of social media makes me more efficient in everyday life				
Adoption	Q12: I plan to use social media in the future	Agarwal, R., & Karahanna, E. (2000).			
	When I hear about a new social platform (eg Facebook, Instagram, etc.), I often evaluate if this is something I'm going to use	Dybdal-Holthe, A & Mollerud, A. (2016).			
	I often seek information about new social media I'm constantly searching for new experiences in social media				
Nudge Hygiene Factor	Q13: Being online has become easier because of	Paulsen, M., & Leistad M. M. (2012).			
	the increasing availability of free WiFi and 4G / 4G + (eg. access to free internet in public places and access to fast mobile networks everywhere) the growing offer of mobile devices (eg tablet, smartphones, etc.) lower internet connection costs				

Motivational Nudges	Q14: I check notifications on social media because it allows me to maintain relationships with friends and acquaintances as soon as they appear because others expect me to do it to reduce my curiosity	Schiffman, L. G., Kanuk, L. L., & Hansen, H. (2008). Leung, L. (2001).
Social Nudges	Q15: I use social media because friends and acquaintances use it I feel pressure / duty to always be available and logged in to social media People who are important to me think I should use social media I feel that using social media is important to my friends	Marino, C., Vieno, A., Pastore, M., Albery, I. P., Frings, D., & Spada, M. M. (2016). Cheung, C. M., Chiu, P. Y., & Lee, M. K. (2011).

# **Appendix 2: Survey**

Denne spørreundersøkelsen er laget i forbindelse med vår masteroppgave i MSc Strategic Marketing Management ved Handelshøyskolen BI. Undersøkelsen omhandler din private bruk av sosiale medier og vil ta ca. 5-10 minutter. Med sosiale medier mener vi digitale plattformer hvor du har mulighet til å kommunisere med andre. Alle svar vil bli behandlet anonymt, så vær vennlig og svar så ærlig som mulig. Det finnes ingen riktige eller gale svar. Takk for at du bidrar ved å ta denne spørreundersøkelsen, det settes stor pris på.

Med vennlig hilsen, Ingrid Eiesland og Martine Mangrud

Q1: Bruker du sosiale medier?

Ja

Nei

Q2: Hvilke sosiale medier bruker du?

Facebook

Instagram

LinkedIn

Twitter

Snapchat

Blogg

Annet (spesifiser i boksen under)

O3: Hvordan bruker du sosiale medier?

Jobbsammenheng

Privat bruk

Studiesammenheng

Q4: Hvor ofte bruker du sosiale medier?

Svært aktiv gjennom dagen

Jevnlig i løpet av dagen

Minst en gang per dag

Noen ganger i uka

Minst en gang per uke

Sjeldnere

Q5: Hvorfor er du i sosiale medier/hva bruker du det til?

Fordi jeg liker å prøve ut nye kommunikasjonsverktøy

For å holde kontakt med venner/bekjente/familie

For å bygge nettverk - privat

For å bygge nettverk - jobb/studiesammenheng

For å uttrykke meninger

For å skaffe informasjon om ting jeg er opptatt av privat

For å skaffe info om ting jeg jobber med eller studerer

For å dele erfaringer og kunnskap

# Q6: FoMO

Angi i hvilken grad du er uenig/enig i følgende utsagn: 1 =Helt uenig, 7 = Helt enig

Helt uenig ganske uenig litt uenig verken/eller litt enig ganske enig Helt enig

Jeg er redd for...

- ... å gå glipp av noe hvis jeg ikke bruker sosiale medier
- ... å gå glipp av relevant informasjon dersom jeg ikke bruker sosiale medier
- ... å gå glipp av sosiale aktiviteter dersom jeg ikke bruker sosiale medier
- ... å ikke være en del av mitt internettbaserte sosiale nettverk (f.eks: Facebook, LinkedIn, Twitter osv.)

#### O7: Habits

Angi i hvilken grad du er uenig/enig i følgende utsagn: 1 =Helt uenig, 7 = Helt enig

Helt uenig ganske uenig litt uenig verken/eller litt enig ganske enig Helt enig

Sosiale medier er en del av min daglige rutine

Jeg ville savnet sosiale medier hvis jeg ikke lenger kunne benyttet meg av det

Selv om jeg prøver å minimere tid brukt på sosiale medier lykkes jeg ikke

Å bruke sosiale medier er noe jeg gjør ofte (mer enn to ganger om dagen)

Å bruke sosiale medier er noe jeg gjør automatisk, uten å tenk på det

#### O8: RoT

Angi i hvilken grad du er uenig/enig i følgende utsagn: 1 =Helt uenig, 7 = Helt enig

Helt uenig ganske uenig litt uenig verken/eller litt enig ganske enig Helt enig

Sosiale medier gjør at jeg...

- ... kan være effektiv og spare tid der jeg kan
- ... kan bruke tid på aktiviteter jeg syns er meningsfulle
- ... får noe igjen for tiden jeg bruker på denne tjenesten
- ... utnytter tiden min på en god måte
- ... får mest mulig ut av min tid

#### Q9: Perceived Usefulness

Angi i hvilken grad du er uenig/enig i følgende utsagn: 1 =Helt uenig, 7 = Helt enig

Helt uenig ganske uenig litt uenig verken/eller litt enig ganske enig Helt enig

Sosiale medier er en god kanal for å lære om produkter og tjenester jeg er interessert i

Sosiale medier er en god kanal for å få med seg begivenheter

Sosiale medier gjør at mine meninger blir hørt av venner/bekjente/familie

Sosiale medier er en god kanal for dialog med venner/bekjente/familie

Generelt tror jeg sosiale medier er en nyttig kanal for meg som bruker

#### O10: Perceived Ease of Use

Angi i hvilken grad du er uenig/enig i følgende utsagn: 1 =Helt uenig, 7 = Helt enig

Helt uenig ganske uenig litt uenig verken/eller litt enig ganske enig Helt enig

Kommunikasjon med andre gjennom sosiale medier virker...

- ... mer praktisk enn gjennom andre kommunikasjonskanaler
- ... raskere enn gjennom andre kommunikasjonskanaler
- ... mer uformelt enn gjennom andre kommunikasjonskanaler

## Q11: ALI

Angi i hvilken grad du er uenig/enig i følgende utsagn: 1 =Helt uenig, 7 = Helt enig

Helt uenig ganske uenig litt uenig verken/eller litt enig ganske enig Helt enig

Det er viktig å alltid ha tilgang til Internett

Generelt, er jeg alltid koblet til Internett

Generelt, har jeg behov for tilgang til Internett når som helts hvor som helst Jeg føler meg tilfreds når jeg har tilgang til Internett

Bruk av sosiale medier gjør meg mer effektiv i hverdagen

#### Q12: Adoption

Angi i hvilken grad du er uenig/enig i følgende utsagn: 1 =Helt uenig, 7 = Helt enig

Helt uenig ganske uenig litt uenig verken/eller litt enig ganske enig Helt enig

Jeg planlegger å bruke sosiale medier i fremtiden

Når jeg hører om ny sosial plattform (f.eks Facebook, Instagram etc.) tar jeg ofte en vurdering på om dette er noe jeg skal bruke

Jeg søker ofte etter informasjon om nye sosiale medier Jeg søker kontinuerlig etter nye opplevelser i sosiale medier

# Q13: Nudge Hygiene Factor

Angi i hvilken grad du er uenig/enig i følgende utsagn: 1 =Helt uenig, 7 = Helt enig

Helt uenig ganske uenig litt uenig verken/eller litt enig ganske enig Helt enig

Å være på Internett har blitt enklere på grunn av...

- ... den økende tilgjengeligheten av gratis WiFi og 4G/4G+ (f.eks tilgang til gratis Internett på offentlige steder og tilgang til raskt mobilnett overalt)
- ... det økende tilbudet av mobile enheter (f.eks nettbrett, smarttelefoner etc.)
- ... lavere priser for Internettilkobling

## Q14: Motivational Nudges

Angi i hvilken grad du er uenig/enig i følgende utsagn: 1 =Helt uenig, 7 = Helt enig

Helt uenig ganske uenig litt uenig verken/eller litt enig ganske enig Helt enig

Jeg sjekker varsler på sosiale medier...

- ... fordi det gjør at jeg kan opprettholde forhold med venner og bekjent
- ... med en gang de dukker opp
- ... fordi andre forventer at jeg skal gjøre det
- ... for å redusere min nysgjerrighet

#### Q15: Social Nudges

Angi i hvilken grad du er uenig/enig i følgende utsagn: 1 =Helt uenig, 7 = Helt enig

Helt uenig ganske uenig litt uenig verken/eller litt enig ganske enig Helt enig

Jeg bruker sosiale medier fordi venner og bekjente bruker det

Jeg føler press/plikt til å alltid være tilgjengelig og pålogget på sosiale medier

Mennesker som er viktige for meg syns jeg skal bruke sosiale medier.

Jeg oppfatter at bruk av sosiale medier er viktig for mine venner

Q16: Kjønn

Kvinne

Mann

Q17: Alder

10-14

15-19

20-24

25-29

30-34

35-39

40-44

45-49

50-54

55-59

60-64

65+

Q18: Høyest oppnådde utdannelse

Grunnskole

Videregående skole

Bachelor grad

Mastergrad

Doktorgrad

Q19: Yrkesstatus

Jobb

Student uten jobb

Student med jobb

Pensjonist

Annet

Q20: Månedlig inntekt (brutto)

0-10 000 kr

10 001-20 000 kr

20 001-30 000 kr

30 001-40 000 kr

40 001-50 000 kr

50 001-60 000 kr

60 001-70 000 kr

70 001-80 000 kr

 $80\ 001 + kr$ 

# **Appendix 3: Pearson Correlation Matrix**

	FOMO	Habits	RoT	Usefulness	Ease of use	ALI	Adoption	Nudge H	Motiv. N	Social N
FOMO	1									
Habits	0.485	1								
RoT	0.068	0.003	1							
Usefulness	0.211	0.296	0.322	1						
Ease of use	0.101	0.341	0.022	0.243	1					
ALI	0.255	0.384	0.025	0.161	0.241	1				
Adoption	0.234	0.206	0.233	0.278	0.105	0.352	1			
Nudge H	0.227	0.287	-0.001	0.145	0.238	0.373	0.161	1		
Motiv. N	0.304	0.357	0.068	0.276	0.374	0.395	0.304	0.289	1	
Social N	0.378	0.176	0.028	0.190	0.195	0.229	0.224	0.210	0.328	1