



## Investigating factors Impacting Discord and Snapchat Use Behavior: Perspective from Swedish users

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### Abstract

The purpose of this study is to investigate the factors impacting user attitudes towards renowned Discord and Snapchat communication applications based on the Reasoned Action Theory and the Theory of Planned Behavior. Following purposive sampling in the current study, 350 Snapchat and discord users were polled in a cross-sectional field survey. The partial least square structural equation modeling (PLS-SEM) technique is used to examine the proposed framework. The findings show that factors' i.e performance expectancy, effort expectancy, habit, peer influence, perceived enjoyment, and social isolation all have a significant impact on attitude toward communication applications and further impact on communication application use. There are a number of key policy insights outcomes and research directions as well as theoretical and practical ramifications for academics, mobile phone users, communication app developers, and business and digital learning scholars.

#### *Keywords*

Performance Expectancy, Effort Expectancy, Habit, Planned behavior theory, Reasoned action theory, Snapchat, and Discord

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## 1. Introduction

The Smartphones have had a significant impact on human existence in recent years, with the global popularity of smartphone phones reaching 4.6 billion and continuing to rise (Malnes et al., 2022; Rozgonjuk et al., 2021). As its features evolve rapidly, it appears that the smartphone will eventually replace other gadgets such as smartwatches, calculators, alarm clocks, Navigation, photographers, and even laptops (Kim et al., 2021). Snapchat and Discord has experimented with a novel technique of mobile short message service as a smartphone application that is used for interactions among individuals across multiple mediums. Snap Chat is becoming increasingly famous as the number of users grows. This application has a high demand across the globe and it is still growing (Gentina et al., 2021).

Performance expectancy is described as “the extent to which an individual believes that this system will help to improve working performance” (Izuagbe, 2021). Customers' expectations regarding the performance of chosen technology are characterized as performance expectancy. Past studies have indicated that the effect of performance expectancy on behavioral intentions is considerable (Rahi et al., 2019; Shaikh et al., 2021). Do Nam Hung et al. (2019) investigate attitude toward communication applications to adopt mobile technologies, and found that the premise that performance expectancy has a favorable impact on the intention is justified. Thus it is being considered a factor determining users' behavior of Snapchat and Discord consumers.

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Effort expectancy is described as “user perception of how they can use a technology easily”. The customer's anticipation of ease is referred to as effort expectancy. According to researchers like Zhou et al. (2010), “when a user perceives attitude toward communication is simple to be using but does not take much effort, they are more likely to adopt it”. According to Chaouali et al. (2016), people are more likely to adopt online applications like Snapchat and Discord if they perceive it as simple. Previous research has found a link between user effort expectations and their desire to use online communication applications like Snapchat and Discord.

Habits are behavioral characteristics that a person shows frequently in a given scenario (Malnes et al., 2022). When the person enters the linked situation, these reactions are acquired and immediately engaged. Conditions usually elicit such instinctive reactions, permitting us to complete routine acts quickly while focusing our concentration on other areas (Sartika et al., 2020). However, the original purpose for these habitual activities becomes increasingly obsolete, and habits that are established mechanically and without personal awareness continue unabated. Habits are hard to change or eliminate since they are so strong (Abequibel et al., 2021). Thus habit is considered in this research as one of the antecedents of user behavior in Snapchat and Discord. Peer influence is a technique through which an individual encourages her online interactions to execute a specific activity, resulting in the showed the correlation of attitude toward communication application (Bapna & Umyarov, 2015). An successful approach under peer influence might be to select the most important individuals and promote the target outcome between them so that it spreads via social conditioning.

Perceived enjoyment described as “the degree to which an individual feels delighted and satisfaction in a preferred environment (Lin et al., 2020)”. So et al. (2021) proposed a widely popular framework for conceptualizing the realm of emotions in humans when he proposed the comprehensive Reasoned Action Theory. They proposed that feelings can be divided into two categories: pleasant and unpleasant. There are two ways to look at a person's perception of pleasure (Holdack et al., 2020). One among them is the pleasure of assisting others. According to Lin et al. (2020), enjoyment is a major aspect in the desire to participate in social networks. The chances for reported enjoyment rise when people are given sufficient ability to engage with and support others. One of these chances can be provided by spreading information. So perceived enjoyment is considered as a second factor determining user behavior of Snapchat and Discord users. The use of the online applications like Snapchat and Discord to interact with relatives and friends has been advocated as a strategy for older persons to preserve or even improve personal contacts, reduce the feeling of isolation, and improve people's lives (Choi & Sung, 2018; Kim et al., 2021). In senior citizens, using online mobile applications for interpersonal interactions and information searching is significantly associated with attitude toward communication applications (Abequibel et al., 2021). Hence social isolation may be another triggering factor to use Snapchat and Discord applications.

Previously, applications were centered on entertainment, sports, gaming, and literature (Rahi et al., 2019; Sok et al., 2021). They've also been used in the business world, with many websites effectively transferring their features and information to mobile platforms in the mobile apps. Mobile apps such as Snapchat and Discord, usually referred to as app stores, are computer programs that may be installed directly on portable devices. It can link to wifi networks and is recognized by computer systems (Gentina et al., 2021). A positive attitude towards a specific application is another major factor that determines the attitude of users towards specific applications such as Snapchat and Discord. The user adoption of Snapchat and Discord is influenced by a number of elements, as mentioned previously. As a result, Snapchat and Discord deserve to learn what other criteria, aside from those mentioned above, would encourage or discourage users from embracing it, so that the firm can plan for the future (Tropp & Baetzgen, 2019).

Furthermore, despite being popular mobile applications with a large user base, there is still a chance that people will reject it. Including an Online news story (Villaespesa & Wowkoych, 2020), Sweden's Department of Technology is developing a plan to pay for using Snapchat and Discord, despite the fact that the app is not created or administered by them. As a result, the website conducted a survey asking,

“Will you continue to use Snapchat and Discord if it begins to charge?” Ninety percent of those who responded said no (Gentina et al., 2021). In such scenario it becomes vital to study the antecedents of user behaviors in such applications in given context may bring key insights for rest of the world. In this setting of Swedish consumers investigating the proposed framework is indeed a theoretical and contextual advance paved in literature by this study.

The aim of this study investigating the user behaviour of discord and Snapchat and perspective from Swedish consumers. The present study was established on Theory of Reasoned Action and Theory of Planned Behaviour. The theory of reasoned action refers as “ the relationship between attitudes and behaviors within human action” (Sok et al., 2021). It is mostly used to estimate how people will act depending on their behavioural intentions. The theory of planned behaviour refers as “is a psychological theory that links beliefs to behavior. The theory maintains that three core components, namely, attitude, subjective norms, and perceived behavioral control, together shape an individual's behavioral intentions” (Bosnjak et al., 2020; Conner, 2020). As a conclusion, these concepts serve as the foundation for the proposed theoretical framework that is being evaluated experimentally in this research. The goal of this study is to emphasize the following research objectives so that they can be identified and achieved:

1. Performance expectancy positively affects the attitude towards communication applications.
2. Effort expectancy positively affects the attitude towards communication applications.
3. Habit positively affects the attitude towards communication applications.
4. Peer Influence positively affects the attitude towards communication applications.
5. Perceived Enjoyment affects the attitude towards communication applications.
6. Social Isolation has significant relationship with the attitude towards communication applications.
7. Positive attitude towards communication applications influence their use of communication applications.

## **2. Literature Review**

The current study is based on important theory that evaluated the the usage behaviour of discord and Snapchat and perspective from Swedish users with the evidence of reasoned action theory and planned behaviour theory.

### ***2.1. Reasoned Action Theory & Planned Behaviour Theory***

The theory of reasoned action refers as “the relationship between attitudes and behaviors within human action” (Sok et al., 2021). It is mostly used to estimate how people will act depending on their behavioural intentions. The Theory of Reasoned Action was established by Ajzen and Fishbein (1975), it attempts to discover personal aspirations and behavior. Emotions or attitude into certain behaviors, as well as behavioural intention, are two determinants of performance expectancy and perceived enjoyment, according to (Ajzen & Fishbein, 1975). The term “subjective norm” refers to how an individual should interpret the significant activities that others believe he/she can or can not take. According to theory of reasoned action, a person's behavioural control determines whether or not they undertake a given activity, and performance expectancy is influenced by attitudes toward the person's particular behavior (LaCaille, 2020). Hence, this theory provides a basis for proposed theoretical framework in this research.

On the other hand theory of planned behaviour refers as “ a psychological theory that links beliefs to behavior. The theory maintains that three core components, namely, attitude, subjective norms, and perceived behavioral control, together shape an individual's behavioral intentions” (Bosnjak et al., 2020; Conner, 2020). According to Min et al. (2019), perceptions at this stage are influenced by how beneficial a person interprets the technology in terms of its overall opportunity over data analysis techniques, integration with existing practices, difficulty, or whether the reforms introduced about

through technology are visible and noticeable, allowing the idea to be tested before integration. The planned behavior theory is determined by “attitude (e.g. technology innovation acceptance), subjective norm (e.g. the organization’s innovation climate), and behavior control consciousness (e.g. the innovative teaching behavior with ICT subscale)” (Chou et al., 2019). introduced this theory as a paradigm. Theory of planned behaviour has been expanded in comparison to Theory of reasoned action by adding a new variable named “perceived behavioral control”. A higher level of planned behavior enhances the level of intentions to use, which results in higher level of using behavior when combined Conner (2020). Mainly both theories provide a theoretical grounding for current study framework. The proposed framework is shown in figure 1.

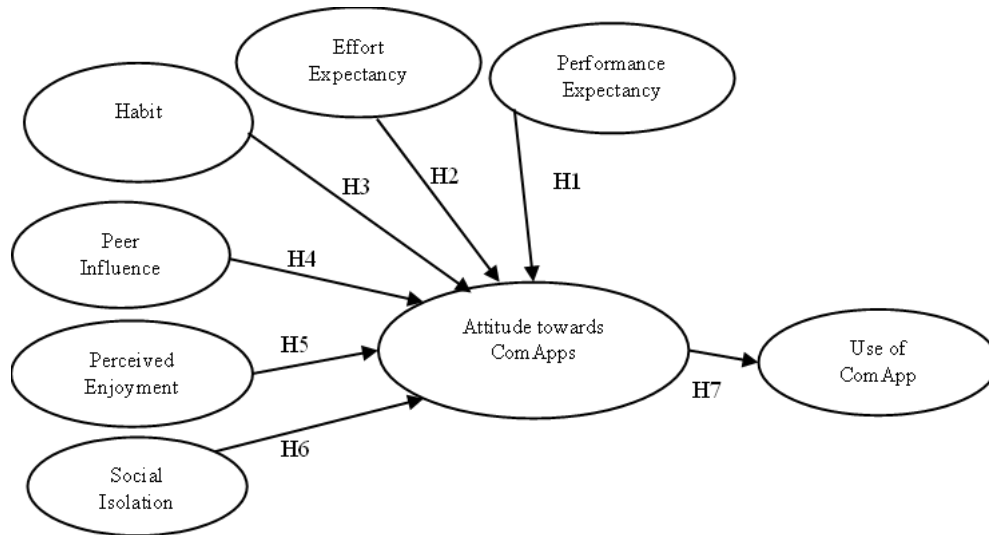


Figure 1: Conceptual Framework

## 2.2. Performance Expectancy and Attitude Towards Communication Applications

Performance expectancy has a considerable effect on participants' behavioral intentions. In a study of the determinants impacting users' behavior intentions toward digital learning technologies (Shaikh et al. (2021). Another study by, Do Nam Hung et al. (2019) discovered that performance expectancy has the biggest impact on behavior intention and user satisfaction. In a related manner, Shaikh et al. (2021) proposed that performance expectancy is a concept of value experienced when using Snapchat and Discord. Meanwhile, as the Internet has become more open, online businesses have begun to appreciate the economic model of software marketplaces. Mobile apps such as Snapchat and Discord, usually referred to as app stores, are computer programs that may be installed directly on portable devices. It can link to wifi networks and is recognized by computer systems (Gentina et al., 2021). Many studies have found that performance expectancy has a substantial impact on customers attitude to use intention to utilize online applications (Rozgonjuk et al., 2021). The performance expectancy variable denotes the person's need for amusement and emotional fulfillment. Previous research explained performance expectancy serves as a mediator for the interaction between perceived interaction and technology. Hence, it is the final factor determining one's attitude towards the use of technologies (Lin et al., 2020; Rahi et al., 2019; Sartika et al., 2020). Several types of research have objectively proven this association and demonstrated performance expectancy outcomes, which the researchers intend to use in this research as well (So et al., 2021; Villaespesa & Wowkowych, 2020). Based on literary grounds current study suggested following hypothesis;

**H1:** Performance expectancy is positively related to the attitude towards communication applications.

## 2.3. Effort Expectancy and Attitude Towards Communication Applications

Relative Past studies have indicated that the effect of effort expectancy on attitude toward

communication application is important. Across 385 customers, An et al. (2016) discovered a substantial effect of effort expectancy on attitude toward communication. On the other hand, have the features of being accessible, useable, and convenient, making them more appealing to readers while also bringing in more revenue. Online messaging smartphones are the most common type of software among the several types of smartphone applications in the present market, according to youngsters. It's also popular among office workers who need a quick means to interact with one another. Mtebe and Raisamo (2014) found that effort expectancy had a substantial influence on pupils' intentions to use mobile applications in Sweden. Customers' performance expectancy about innovation adoption will improve as their perceived attitude toward communication rises (Chaouali et al., 2016). This demonstrated that the ease with which users interact with technology has an impact on the outcomes. Many other studies have found that effort expectancy has a major impact on perceived attitude toward communication (Al-Qeisi et al., 2014; Oliveira et al., 2016). As a result, and based on a previous study (Al-Qeisi et al., 2014; Chaouali et al., 2016; Oliveira et al., 2016), authors suggest that customers' effort expectancy would have a major impact on online communication applications like Snapchat and Discord. Hence the following hypothesis is suggested.

**H2:** Effort expectancy is positively related to the attitude towards communication applications.

#### **2.4. Habit and Attitude Towards Communication Applications**

Habits are patterns of behavior that a person exhibits repeatedly in a specific situation (Malnes et al., 2022). These reflexes are acquired and quickly engaged when the person enters the related scenario. Such automatic reactions are frequently elicited by circumstances, allowing us to do routine tasks swiftly while focusing our attention on other things (Gentina et al., 2021). The initial reason for these habitual acts, on the other hand, becomes progressively obsolete, and habits that are formed mechanically and without human awareness persist. Habits are difficult to change or break since they are so ingrained (Kim et al., 2021). Once habits are developed, control overall behavior ultimately moves away from our goals and toward being routinely activated by environmental stimuli. As a result, habits are important to overcome even with purpose goals or understanding of the effects of habits and behaviors once they have been established. Research procedures that modify the significance or consequences of the result to find behavioral traits that persist despite such changes can be used to analyze habitual behavior. Habits are reaction characteristics that a person displays frequently in a given scenario (Ersche et al., 2017; Malnes et al., 2022). When the person enters the linked situation, these reactions are acquired and immediately engaged. However, the initial aim for these habitual activities becomes largely obsolete, and habits that are established mechanically even without personal awareness continue indefinitely. Habits are hard to change or eliminate since they are so strong. Past studies have indicated that the effect of habit on attitude toward communication application is important (D'Elia et al., 2019; Ersche et al., 2017; Holdack et al., 2020; Malnes et al., 2022). Several researches have objectively proven this association and demonstrated that habits comes, which the researchers intend to use in this research as well (Dickinger et al., 2008; Ersche et al., 2017; Kim et al., 2021; Rozgonjuk et al., 2021). It is expected that according to theory of planned behavior once Snapchat and Discord consumers become habitual in using these apps it becomes easy to influence their attitude and behavior. Hence, following hypothesis is suggested;

**H3:** Habit positively related to the attitude towards communication applications.

#### **2.5. Peer Influence and Attitude Towards Communication Applications**

Furthermore, peer influence techniques are not always completely exclusive and may enhance one another, meaning that social spread activities in real-world through Snapchat and Discord may involve an unique combination of peer influence (He et al., 2013; Shaikh et al., 2021). Due to the rapid development and widespread adoption of communication applications, a large number of academics have looked into the acceptability of specific communication applications. User adoption of mobile applications was investigated by Rahi et al. (2019). Some used system is based on the

unified view of technology. The findings of repeated experiments of the suggested model supported the conventional elements that influence user approval. Despite the fact that this study came to a clear decision, the findings only reflect the restricted viewpoints of user encounters with communication applications. As a result, it's impossible to extrapolate the findings to other sorts of communication applications from outside the Sweden (Rahi et al., 2019). Many other studies have found that peer influence has a major impact on perceived attitude toward communication (Aral & Walker, 2011; Bapna & Umyarov, 2015; Conner, 2020; Gentina et al., 2021; He et al., 2013). Hence current study suggested the following hypothesis;

**H4:** Peer Influence is positively related to the attitude towards communication applications.

## ***2.6. Perceived Enjoyment and attitude towards communication applications***

Pleasure or enjoyment refers to “the degree to which an individual feels delighted and satisfied in a preferred environment” (Do Nam Hung et al., 2019). Holdack et al. (2020) proposed that feelings can be divided into two categories: pleasant and unpleasant. Anxiety, anger, happiness, sorrow, tolerance, rejection, expectancy, and surprise are the basic thoughts and feelings that can be subdivided into these polar groups (Malnes et al., 2022). Enjoyment, as an affective state, is crucial in reflecting people's views of their physical surroundings. Perceived enjoyment has long been seen to be a qualitative element that conveys people's feelings of pleasure, sadness, contempt, or hatred toward a particular behavior (Rahi et al., 2019; So et al., 2021). Attitudes are induced by a variety of situations (Mehrabian and Russell 1974). Evidence based study has demonstrated a favorable relationship between shop features and customers' mental reactions of satisfaction in retail contexts (Habib et al., 2019). Furthermore, while enjoyment is obtained from environmental stimulation and actions, it stems from a person's natural pleasure in those actions (Sartika et al., 2020). In a peer-to-peer situation, for example, enjoyment is important for developing a positive attitude and behavioral intention. There are two ways to look at perceived enjoyment (He et al., 2013; LaCaille, 2020; Rahi et al., 2019; So et al., 2021). One among them is the pleasure of assisting others. According to Holdack et al. (2020), enjoyment is a major aspect in the desire to engage in social media platforms. The chances for reported enjoyment rise when people are given suitable opportunities to interact with and support others. In online communication applications, a lot of studies look into the impact of perceived enjoyment. Holdack et al. (2020), covers the general that include the concept of perceived enjoyment in a study of online communication application such as Snapchat and Discord. Quick, intensity, variation, and attention were shown to be the most relevant characteristics in a study of perceived enjoyment (Izuagbe, 2021). Based on the idea borrowed from these results and above literature support contributed to the growth of a framework that suggests that perceived enjoyment has an impact on attitude toward communication applications. Hence, following hypothesis is suggested;

**H5:** Perceived Enjoyment is positively related to the attitude toward communication applications.

## ***2.7. Social Isolation and Attitude Towards Communication Applications***

Recent research related to social isolation reported that older persons face challenges in using the Snapchat and Discord mobile applications, such as inadequate knowledge and subconsciousness, as well as data protection. As people live longer and live alone, frequently far away from friends, social isolation is becoming a worry (Choi & Sung, 2018). Being alone and enjoying occasional socialization and/or limited social network linkages are all signs of social isolation (Do Nam Hung et al., 2019). Isolation is a cognitive-affective factor in which the gap between wanted and real social interactions causes discontent (Zeng et al., 2013). The research to be evaluated is confined to research that have looked at people's opinions toward Snapchat and Discord usage, which is in line with the goal of this study. The majority of today's online communication are based on the Internet. People interact with one another by sending text, audio, videos, and documents, and these technologies save both transmitter and recipient resources and cost. Furthermore, online messaging



apps aren't just for communicating with other mobile users. They've also evolved into communication channels for work, and even education. As a result, and based on a previous studies (Lin et al., 2020; Sartika et al., 2020; Sok et al., 2021; Tropp & Baetzgen, 2019; Zeng et al., 2013), authors suggest that social isolation would have a major impact on attitude toward communication applications like Snapchat and Discord. Hence, following hypothesis is suggested;

**H6:** Social Isolation is positively related to the attitude toward communication applications.

## **2.8. Attitude Toward Communication Applications and Usage of Apps**

Communication application are programs that are designed to run directly on devices such as smartphones and ipad and share the same graphical features as the operating system (Zeng et al., 2013). There are a lot of good of applications allowing activities in the largest software folders, the Google Play Store. Snapchat and Discord users are more likely to utilize the program to discreetly converse and share material with others with whom they now have deep relationships (Kim et al., 2021). Applications have always been deployed as applications over the Internet. Meanwhile, as the Internet has become more accessible, Internet has begun to appreciate the economic model of program marketplaces. When downloading a smartphone app, examine the systems of the device, just as you would with application software. Similar services on the digital application, on the other hand, have the features of being accessible, useable, and convenient, making them more appealing to customers while also bringing in more revenue. Communication applications are the most preferred type of software among the various types of smartphone apps available in the present market, according to the new generation. It is also popular among workers who need a quick means to interact with one another (Abequibel et al., 2021; D'Elia et al., 2019). Thus current research based on the theory of reason action and theory of planned behavior purpose the following hypothesis;

**H7:** Positive attitude towards communication applications is positively related to usage intention of the applications.

## **3. Methodology**

The current study is conducted on Snapchat and Discord consumers in Sweden. With over 74.6 thousand installations, Snapchat was the top popular application in the Play Store in Sweden. Including over 48.7 thousand installations from Android phones in Sweden, Hangout was the second highest rated chat application. Kivra came in third place, with around 33 thousand downloading during the time period under consideration. Thus considering users of two applications Snapchat and Discord makes sense for the purposive sampling technique. The present study circulated 400 questionnaires based on these statistics selection of users who were using any of these two popular applications and were expert users of survey language English. As a result, 350 respondents provided filled surveys. The survey of this cross-sectional research design technique taped the participants' perspectives regarding the performance expectancy, effort expectancy, Habit, peer influence, perceived enjoyment, social isolation, and the perceived attitude toward communication applications with the intention to use at a certain level. The researcher built 7 point Likert scale for the survey questionnaire ranging from 1= Strongly Disagree to 7 = strongly agree.

For the instrument development, A 23-item questionnaire was devised to analyze the user behavior of Discord and Snapchat users perspectives from Swedish consumer's point of view. A 4-item scale of performance expectancy, 3-item scale of effort expectancy, 4-item scale of peer influence was adopted by (Zeng et al., 2013). A 4-item scale of habit was adopted by (Ersche et al., 2017). A 2-item scale of social isolation, perceived enjoyment, and attitude toward communication applications (ComApps) was adopted by (Dickinger et al., 2008). A 3-item scale of use of communication applications was adopted by (Zeng et al., 2013). the detailed measurement items are shown in table 1.

Table 1: Measurement items

Variables	Items	Source
Performance Expectancy	<ol style="list-style-type: none"> <li>1. I would find the Snapchat and Discord useful in my job/study.</li> <li>2. Using the Snapchat and Discord enables me to accomplish tasks more quickly.</li> <li>3. Using the Snapchat and Discord increases my productivity.</li> <li>4. If I use the Snapchat and Discord, I will increase my chances of getting a raise</li> </ol>	(Zeng et al., 2013)
Effort Expectancy	<ol style="list-style-type: none"> <li>1. My interaction with the Snapchat and Discord would be clear and understandable.</li> <li>2. It would be easy for me to become skillful at using the Snapchat and Discord.</li> <li>3. I would find the Snapchat and Discord easy to use.</li> </ol>	(Zeng et al., 2013)
Habit	<ol style="list-style-type: none"> <li>1. I tend to like routine.</li> <li>2. I find comfort in regularity.</li> <li>3. I rely on what is tried and tested rather than exploring something new.</li> <li>4. I quite happily work within my comfort zone rather than challenging myself.</li> </ol>	(Ersche et al., 2017)
Peer Influence	<ol style="list-style-type: none"> <li>1. Learning to operate the Snapchat and Discord is easy for me.</li> <li>2. People who influence my behavior think that I should use the Snapchat and Discord.</li> <li>3. People who are important to me think that I should use the Snapchat and Discord.</li> <li>4. In general, the organization has supported the use of the Snapchat and Discord</li> </ol>	(Zeng et al., 2013)
Perceived Enjoyment	<ol style="list-style-type: none"> <li>1. I enjoy using Snapchat and Discord.</li> <li>2. I like to use new technologies.</li> </ol>	(Dickinger et al., 2008)
Social Isolation	<ol style="list-style-type: none"> <li>1. I would use Snapchat and Discord if my friends use it.</li> <li>2. I would use Snapchat and Discord if my family uses it.</li> </ol>	(Dickinger et al., 2008)
Attitude towards ComApps	<ol style="list-style-type: none"> <li>1. Using Snapchat and Discord is: Good –Bad.</li> <li>2. Using Snapchat and Discord is: Favourable –Unfavourable</li> </ol>	(Dickinger et al., 2008)
Use of ComApps	<ol style="list-style-type: none"> <li>1. I intend to use Snapchat and Discord in the next 12 months.</li> <li>2. I predict I would use Snapchat and Discord in the next 12 months.</li> <li>3. I plan to use the Snapchat and Discord in the next 12 months.</li> </ol>	(Zeng et al., 2013)

## 4. Data Analysis

### 4.1. Demographic Analysis

Gender and Age of respondents had a substantial impact on the user behavior of discord and Snapchat and the perspective of Swedish consumers, according to the model assessment; hence, these two demographic factors were controlled throughout the analysis.

Table 1: Demographic Profile

Demography	Description	No. of Responses	%
Gender	Male	220	63
	Female	130	37
Age	25-35	200	57
	Above 35	150	43
Qualification	Bachelors	190	54
	Master	160	46

The above table shows that most of the respondent were male and age of respondents between 25-35 were 57% and above 35 were 43%. Qualification of bachelor respondents were 54 and masters were 160 who use Snapchat and Discord.



#### 4.2. Measurement Model

Cronbach's and composite reliability (Raeder et al., 2008), Average Variance Extracted (AVE), and discriminant validity are evaluated in the measurement model. Cronbach's Alpha and composite reliability value greater than 0.70 shows that they fulfilled the dependability criteria (Raeder et al., 2008). The variables' convergent validity was then determined using AVE (Ramayah et al., 2018). The AVE was greater than 0.50 for all variables (Raeder et al., 2008). The values are shown in table 3.

Table 3: Composite reliability, Cronbach's Alpha and AVE values

Variables	Cronbach's Alpha	Composite reliability	AVE
Effort Expectancy	0.712	0.794	0.563
Habit	0.747	0.774	0.566
Peer Influence	0.755	0.710	0.562
Perceived Enjoyment	0.740	0.845	0.733
Performance Expectancy	0.805	0.870	0.626
Social Isolation	0.794	0.866	0.763
Attitude toward ComApps	0.729	0.881	0.787
Use of ComApps	0.825	0.895	0.741

The correlation between the analysis of variance item and the exact number of AVEs was used to calculate it. According to Raeder et al. (2008), latent variables squared AVE value higher than any other pair of variable correlation confirms the adequate discriminant validity Fornell and Larcker (1981), the calculated values and correlation analysis is shown in table 4.

Table 4: Discriminant Validity

	ACA	EE	H	PI	E	PE	SI	UCA
<b>Attitude toward ComApps</b>	0.887							
<b>Effort Expectancy</b>	0.194	0.856						
<b>Habit</b>	0.168	0.643	0.842					
<b>Peer Influence</b>	0.465	0.262	0.282	0.792				
<b>Perceived Enjoyment</b>	0.285	0.218	0.161	0.466	0.776			
<b>Performance Expectancy</b>	0.283	0.268	0.221	0.456	0.337	0.761		
<b>Social Isolation</b>	0.459	0.188	0.225	0.336	0.290	0.297	0.750	
<b>Use of ComApps</b>	0.530	0.198	0.142	0.666	0.447	0.515	0.356	0.642

#### 4.3. Assessment of Structural Model

The study's recommended approach employs a structural model to emphasize the interdependence of the links. The structural relationships and the PLS algorithm values are shown in figure 2, presenting the standardized effects.

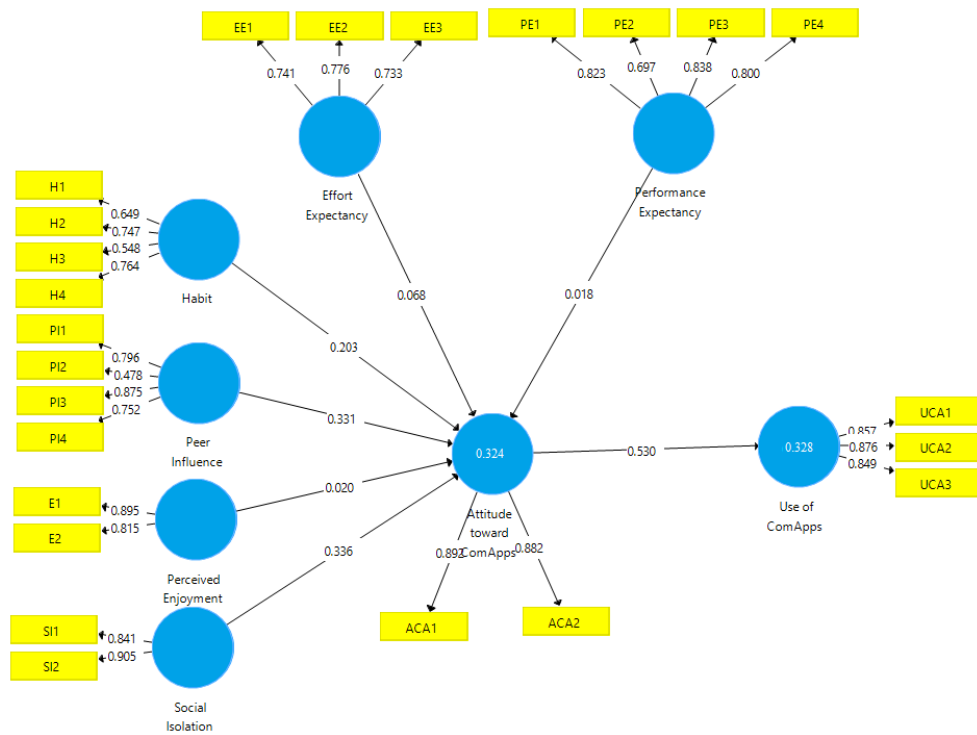


Figure 2: Figure 2: Assessment of PLS Algorithm

Furthermore, the bootstrapping analysis was performed to show the significance of the relationship. Figure 3, shows the t values, and based on that significant or insignificant relationships are evaluated.

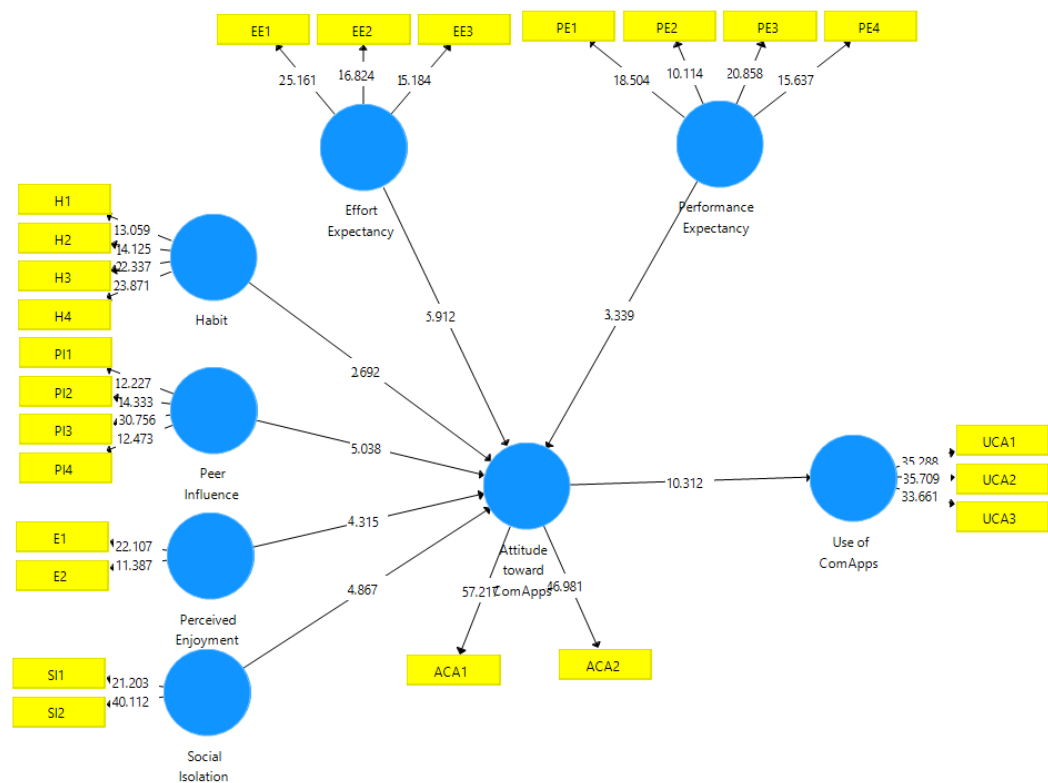


Figure 3: Assessment of Bootstrapping

Table 4, shows that all hypotheses are significant and positively accepted. H1, performance expectancy impact on attitude toward ComApps is accepted ( $B = 0.018$ ,  $p < 0.000$ ). H2 shows effort expectancy has significant impact on attitude toward ComApps ( $B = 0.068$ ,  $p < 0.000$ ), thus support H2. The third hypothesis is also supported by showing that habit impacts attitude toward ComApps ( $B = 0.203$ ,  $p < 0.004$ ). The fourth hypothesis shows peer influence impact on attitude toward ComApps ( $B = 0.331$ ,  $p < 0.000$ ), hence accepted. H5 is also accepted presenting a significant positive impact of perceived enjoyment impact on attitude toward ComApps ( $B = 0.020$ ,  $p < 0.003$ ). Sixth hypothesis shows social isolation impact on attitude toward ComApps ( $B = 0.336$ ,  $p < 0.000$ ), accepting H6. The last hypothesis related to attitude toward computer application and use of ComApps was also supported by study findings ( $B = 0.530$ ,  $p < 0.000$ ).

The following table 5 shows the results of the proposed hypotheses.

Table 5: Hypothesis Testing

Path	P-value	Results
Effort Expectancy - Attitude	0.000	Supported
Habit – Attitude	0.004	Supported
Peer Influence – Attitude	0.000	Supported
Perceived Enjoyment – Attitude	0.003	Supported
Performance Expectancy – Attitude	0.005	Supported
Social Isolation – Attitude	0.000	Supported
Attitude – Use of ComApps	0.000	Supported

According to Chin (1998),  $R^2$  values of “0.13 are weak, 0.33 are moderate, and 0.67 are high”. Table 6 shows the coefficient of determination for endogenous constructs

Table 6: Assessment of R Square

	$R^2$
Attitude Toward ComApps	0.324
Use of ComApps	0.328

## 5. Discussion

The objective of this study was to explore the user behavior of discord and Snapchat users and the perspective of Swedish consumers and users in the European context. All of the hypotheses are supported by the findings. According to the results of the research hypotheses, the customer's intentions to use Snapchat and Discord are favorably influenced by the user's effort expectancy, which implies that the simpler and more relaxed customers feel while using Snapchat and Discord, the more ready they are to adopt this technology. Furthermore, peer influence is the component that has the most impact on Snapchat and Discord usage behavior. Users are influenced by key people in their lives when deciding whether or not to use Snapchat and Discord. Encouraging situations can also have a beneficial impact on how consumers feel about using Snapchat. This indicates that the more complete Snapchat and Discord help system can be the reason for more inclined customers for using these applications.

The current findings not only provide significant associations between antecedents of user attitude toward communication apps but also significantly associated this attitude with the intention to use. These findings have several theoretical and practical as well as contextual implications for researchers, app developers, app users, and businesses associated with applications.

### 5.1. Implications of the Study

Moreover, this research delivers valuable information to policymakers, practitioners, and managers in a number of different ways. To begin the current study analyzes the user behavior of

Discord and Snapchat consumers from a Swedish setting. First, Performance expectancy has shown a direct effect on attitude toward communication applications, it can be assumed that Snapchat and Discord customers do believe using the app will influence their quality of work positively. This result might also be drawn from previous studies that looked at user adoption of mobile applications. So companies may encourage their employees to use such social media apps for productive work purposes. Secondly, effort expectancy was defined as the degree of ease with which users interacted with Snapchat and Discord. Many similar competitive mobile programs may have the same impact. Improved user acceptability would be aided by a stronger graphical interface and more customizable features. Thirdly, a successful networking approach could also aid in increasing the peer impact of a particular attitude toward communication applications. Finally, the present study established own two theories of reasoned action theory and planned behavior theory. As consequence, this integration of diverse theories to support a single comprehensive framework will open new avenues of future research in this area. This research is novel to make contextual advances by studying user behavior and user intentions as well as antecedents of user attitude for social media apps in Swedish users. These findings may help all European app developers, IT managers, Social media marketing experts, and digital innovation experts to develop future research agendas in this field.

### **5.2. *Limitation and Future Research***

The present study, like all the others, has significant flaws that need to be considered and addressed in research efforts. Future studies could include a wide range of other applications like Facebook, Twitter, Instagram, etc, and also a diverse sample among European countries to make a comparative analysis. Second, despite the possibility that future researchers may adopt a longitudinal study design to more reliably establish causality, the data were obtained in a cross-sectional style. As an outcome, experimental approaches may be required in future studies to better call the effective linkages and increase the validity of the outcomes. Thirdly, experts should look into factors that may moderate and mediate the impacts in future studies to get more useful results. The findings may be investigated in different collectivist cultural contexts to see the cultural influence on users behavior, attitude and intention to use social media apps.

### **5.3. *Conclusion***

The current study was developed with the objectives of performance expectancy, effort expectancy, habit, peer influence, perceived enjoyment, and social isolation having a significant positive effect on the perceived attitude toward communication applications with the intention to use at a certain level and certain app users such as Snapchat and Discord. Communication application users such as Snapchat and discord users spend more time on social media than they do on other mobile networks, even more than they do on computers. Communication applications are quickly becoming one of the most popular tools for connecting each other, and making new friends, with several apps built to target certain sections, demands, and activities. As a result, for scholars, mobile phone users, and communication application users, this study has both theoretical and practical consequences. The study also made contextual advances by collecting data from European country samples and bringing empirical evidence for a unique theoretical framework. The study also made theoretical advances by bridging two diverse theories in grounding a comprehensive research framework. The current research brings key policy insights for business managers, entrepreneurs, social media marketers, and app developers for better and more effective usage of social media apps.

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