The Antecedents of Facebook Check in Adoption Intention: The Perspective of Social Influence

Hsiu-Hua Cheng

Abstract—Recently, the competition between websites becomes intense. How to make users "adopt" their websites is an issue of urgent importance for online communities companies. Social procedures (such as social influence) can possibly explain how and why users' technologies usage behaviors affect other people to use the technologies. This study proposes two types of social influences on the initial usage of Facebook Check In-friends and group members. Besides, this study combines social influences theory and social network theory to explore the factors influencing initial usage of Facebook Check In. This study indicates that Facebook friends' previous usage of Facebook Check In and Facebook group members' previous usage of Facebook Check In will positively influence focal actors' Facebook Check In adoption intention, and network centrality will moderate the relationships among Facebook friends' previous usage of Facebook Check In, Facebook group members' previous usage of Facebook Check In and focal actors' Facebook Check In adoption intention. The article concludes with contributions to academic research and practice.

Keywords—Social Influence, Adoption Intention, Facebook Check In, Previous Usage behavior.

I. INTRODUCTION

WITH the development of the World Wide Web, websites have become an indispensable part of our daily activities. In our daily life, we visit websites to search for information, to entertain ourselves, and to interact with other people. Reference [13] estimated that a total of 5.25 billion users use Facebook on a daily basis. Reference [20] predicted that in 2015, companies will invest 8.3 billion US dollars in inserting advertisements on social networking websites. These cases demonstrate the gigantic commercial value of online communities.

Recently, the competition between websites becomes intense. To survive, website managers not only have to look for effective means to attract new users but also have to develop mechanisms to retain existing users [2]. Therefore, how to make users "adopt" their websites is an issue of urgent importance for online communities companies.

Previous study has shown that people can easily observe others' adopting technologies behaviors [14]. Social procedures (such as social influence) can possibly explain how and why users' technologies usage behaviors affect other people to use the technologies [19]. With this knowledge at mind, this study will adopt the social influence theory [15], [19] to explore the types and sources of social influence regarding usage of Facebook Check In, and the relationship between

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social influence and initial usage of Facebook Check In. In addition, previous study indicated that a user's level of hierarchy would play a role in the relationship between the peers' use of the system and individual use of system [19]. The social network theory can picture how one interacts with others and one's hierarchical position in the network. Therefore, this study combines social influences theory and social network theory to explore the factors influencing initial usage of Facebook Check In.

II. LITERATURE

A. Social Influence Theory

Reference [15] proposed the social influence theory based on the perspective of psychological attachment. The social influence theory proposes that one's attitudes, beliefs, and behavior are influenced by the reference group [15]. Reference [15] listed three types of influencing processes: compliance, internalization, and identification. Compliance means that one publicizes his agreement yet does not whole-heartedly accept the behavior; internalization and identification refer to the publicized agreement with a genuine internal motive [15]. Following is detailed illustration of the three processes:

Compliance occurs when a person accepts the influence because he wants to obtain a favorable response from another person or a group. The person adopts this behavior because he predicts this adoption can help him gain some benefits or avoid certain punishments.

Identification occurs when a person accepts the influence because he wants to build or maintain a satisfactory relationship with another person or a group, and this relationship can possibly be procured through classical identification. The person adopts this behavior because the adoption brings a desirable relationship to him.

Internalization means a person accepts the influence because of the essence or content of the behavior. In other words, the idea and action this behavior entails are exactly the intrinsic feedback that the adoption of the behavior generates. The person adopts the behavior because it matches his value. He may consider that this behavior can help solve problems or find the behavior matches his needs. The adoption of the behavior can be integrated into his existing value system.

B. Social Network

A social network is composed of ties between social entities. Social entities refer to actors, such as individuals, teams, or companies; Ties refer to the linkages between two actors [21]. The network is built by social entities via mutual communication and interaction. It can help understand the

locations and communicative channels of social entities [9].

Betweenness centrality estimates the betweennss location of the actor. It describes the degree in which the interaction between a pair of actors needs to be mediated by a third actor. Reference [9] explained that betweenness centrality is the degree an actor can control other actors and reach a larger range in the network. Actors with higher betweenness centrality have more opportunities to steer the flow of information and thus occupy the key position to control the flow of information.

III. METHOD

A. Research Model

Previous study has shown that people can easily observe others' adopting technologies behaviors [14]. Social procedures (such as social influence) can possibly explain how and why users' technologies usage behaviors affect other people to use the technologies [19]. According to [19], many previous scholars stressed the concept of subjective norm and explored the relationship between subject norm and the adoption of information systems. However, these studies did not discuss into the whole concept of social influence [7]. Subjective norm emphasizes the concept of compliance in social influence [15], yet studies have shown that people have to undergo the procedures of internalization and identification to voluntarily adopt the behavior. In contrast, compliance is not voluntary behavior. Accordingly, this study uses the concepts of identification and internalization from social influence theory to explore the types and sources of social influence regarding initial usage of Facebook Check In as well as the relationship between social influence and initial usage of Facebook Check In.

In addition, previous study pointed out that the level of one's hierarchy would determine the relationship between the peers' use of the system and individual use of the system [19]. The social network theory can describe the interaction between an individual and others and one's position in the social network. Therefore, in addition to exploring the relationship between social influences and the intention of initial usage of Facebook Check In, this study is based on the social network theory to picture the social network of Facebook users, probing into how social influences intervene in initial usage of Facebook Check In.

B. Hypotheses

Reference [12] pointed out that the reference group of consumers in an online scenario can be other online users. Accordingly, the reference group includes not only family and friends of the surrounding environment but also online friends. Therefore, this study summarizes two sources of social influence on the initial usage of Facebook Check In: friends and group members. Details are explained in the following section.

Reference [3] indicated that consumers are often affected by relatives or friends and hence purchase the products that most of the people have purchased. In the case of Facebook, Facebook friends usually know each other in real life. Therefore, every move a user makes on Facebook can generate influence on the behavior of the focal actors. Therefore, Facebook friends can be regarded as a reference group for the focal actors.

A focal actor is likely to be affected by peers [4]. In this study, peers are similar to friends on Facebook. The information offered by the peers forms the knowledge base for individuals' cognitions and beliefs [8]. If the peers hold a positive attitude toward an information system, the individuals are very likely to like this system and form a positive attitude toward it. This positive attitude may lead the individual to adopt the system [18]. In addition, a system openly used by peers may function as verification of self perception. It then influences the individuals' attitude and information system usage behavior. To put this in the case of Facebook, when friends check in on Facebook, they show the focal actors that the Check In service is useful or they like using the service. As a result, the focal actors will internalize this message and form a positive attitude toward Facebook Check In. In other words, individuals will use the mechanism of internalization to cope with the information released by their friends and generate their belief regarding the behavior. Meanwhile, individuals tend to identify with their peers [10]. They copy their peers' behavior so as to maintain the relationship with their peers [11]. The focal actors can maintain the relationships with their Facebook friends by using Facebook Check In. Therefore, this study proposes that Facebook friends' previous usage of Facebook Check In will positively influence focal actors' initial usage of Facebook Check In. The hypothesis is:

H1. Facebook friends' previous usage of Facebook Check In will positively influence a focal actor's Facebook Check In adoption intention.

According to [16], when consumers are making shopping decisions, they rely on friends with whom they share more consensuses. When individuals share more agreements with the reference group, the group makes larger influence on the individuals. For example, in a group, group members tend to have much influence over focal actors. Therefore, members of focal actors' Facebook groups can be a reference group for focal actors.

The social influence theory reasons that identification leads individuals to willingly copy other people's behavior; internalization leads individuals to adopt other people's opinion and then unconsciously copy others' behavior [15]. Reference [19] maintained that the influence of identification and internalization on the technologies usage shows a consistent view with the social cognitive theory [1].

The social cognitive theory [1] indicates that reciprocal interaction and individual cognition determine human behavior. Reference [1] argues that modeling is one of the best means for people to send their values, attitudes, thoughts, and behavioral patterns to others. Individuals tend to imitate other people's behavior as much as possible [1]. The imitation is also used to absorb other people's viewpoints [1]. Such influence can occur via observing or having conversation with other people, which function as an indirect way to learn others' behavior [19].

Based on social cognitive theory, this study posits that when

group members check in on Facebook, they are sending the concept of modeling to other members. In other words, when group members check in on Facebook, they can effectively send their views toward the Facebook Check In service to focal actors. Later, when focal actors observe what their Facebook group members are promoting, they might unwittingly internalize group members' viewpoints and imitate group members' usage of Facebook Check In. In addition, previous study has shown that individuals perform behaviors that are similar with their peers' behaviors to maintain the relationships with the peers [11]. Accordingly, Facebook group members can generate the social influence of identification on focal actors. Focal actors thus imitate the usage of Facebook Check In to maintain the relationships with Facebook group members. The hypothesis is:

H2. Facebook group members' previous usage of Facebook Check In will positively influence a focal actor's Facebook Check In adoption intention.

When the focal actors have high betweenness centrality, they are capable of controlling the flow of information and how other users access the information [9]. When the focal actors are in a position of high centrality, they do not have to rely on other people while others' dependence on them increases. They are thus more powerful [5].

A previous study shows that actors of high centrality have more power [5]. When powerful individuals are making decisions, they are less likely to rely on others and thus can focus their attention on themselves [6]. On the contrary,

individuals with less power concentrate more on the environment because they need to keep an eye on and predict external factors. When individuals only focus on themselves, they are more conscious of their thoughts and feelings. Individuals with power are more likely to take their subjective experiences into account when they are forming an attitude or making decisions [22]. In other words, people with power care more about their thoughts and neglect environmental factors when they are making decisions. Reference [17] shows that power may moderate the relationship between social influence and behavioral decision.

In this study, the focal actors with high betweenness centrality are more likely to concentrate on their thoughts and ignore information generated from external societal factors (such as Facebook friends' and group members' previous usage of Check In). Under this circumstance, the influence from Facebook friends or group members' previous usage of Check In becomes lessened. Thus, this study proposes the hypotheses:

H3. Betweenness centrality of a focus actor can negatively moderate the relationship between Facebook friends' previous usage of Facebook Check In and a focal actor's Facebook Check In adoption intention.

H4. Betweenness centrality of a focus actor can negatively moderate the relationship between Facebook group members' previous usage of Facebook Check In and a focal actor's Facebook Check In adoption intention.
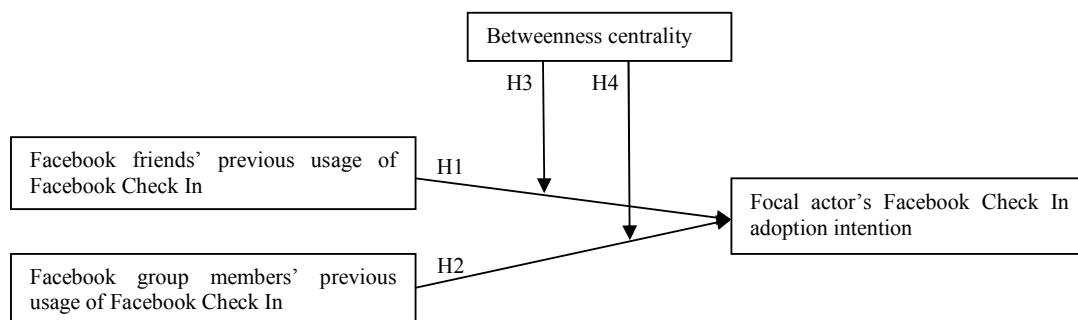
Fig. 1 shows the research model.

Fig. 1 Research model

IV. Conclusion

This study is based on social influences theory to explore the types and sources of social influences on the initial usage of Facebook Check In and the relationship between social influences and the initial usage of Facebook Check In. In addition, this study also adopts social network theory to picture the social network of Facebook users so as to explore how social network centrality is involved in social influences and the intention to adopt Facebook Check In.

This study summarizes two types of social influences on the initial usage of Facebook Check In—friends and group members—and explores how these two social influences facilitate the intention to adopt Facebook Check In. This perspective, a fairly new idea, is the study's contribution to the academic research. This study suggests that website managers

design connecting website interaction mechanisms, enhance their social influences, and thus attract customers to start using their products.

Meanwhile, this study combines the perspectives of social influences and network centrality, proposing how social networks and network centrality determine the intention to use Facebook Check In. Based on this, this study makes guidelines for business practice. This study suggests that website managers design connecting website interaction mechanisms, enhance their social influences, and thus attract customers to start using their products.

Although this study has offered insights into adoption intention, some limitations are inevitably present. First, the choice of constructs is primarily based on social influence theory, other possible constructs, such as individual

characteristic are overlooked. Second, this study only proposes a research model that has not be tested yet. The model verification should be performed in the future.

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