

# Factors Influencing the Technology Acceptance of Social Media in India: A Literature Review and Research Agenda for Future

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**Abstract:** Social media technologies are Internet social network sites which are used to connect people, communities and content. The use of Internet social network sites has become an international phenomenon. The growing popularity of social networking sites (SNS) among the internet users leads them to communicate and socialize with each other. SNS are of two types one is hedonic in nature which offer entertainment and attract large number of people such as Facebook, MySpace etc and another one is Utilitarian SNS such as LinkedIn, Ryze etc which are accepted by the users as an efficient networking tool. The objective of the paper is to identify the factors that influence the use of Social Networking Sites and In order to explain the factors; this paper extends the technology acceptance model (TAM) in two ways. First, three factors Perceived risk, Trust, Perceived Attractiveness that influence the use of SNS are included. The remainder of the paper is divided into three sections. The first section contains introduction of Social Networking Sites. Second section includes literature review about acceptance of social networking sites and identifies the literature gap. Third section proposes a research model as the Social Networking Sites Adoption model based on TAM to evaluate the intention to adopt SNS. TAM focuses exclusively on cognition-oriented constructs such as perceived usefulness and perceived ease of use. This paper analyzes an extended model which integrates three additional constructs: Perceived risk, Trust, Perceived Attractiveness. The interrelationship between these constructs is also explained. Empirical validations of this extended model are expected in future research.

## 1. INTRODUCTION

Social media technologies are Internet social network sites which are used to connect people, communities and content. The augment of social networking websites such as Facebook and Twitter has created enormous attention in social communication world. Now many people are interacting with each other through social networking website easily. The growing attractiveness of social networking sites (SNS) among the internet users leads them to communicate and hang out with each other. SNS are of two types one is hedonic in nature which offer entertainment and attract large number of people such as Facebook, MySpace etc and another one is

Utilitarian SNS such as LinkedIn, Ryze etc which are accepted by the users as an competent networking tool.

Social networking sites (SNSs) such as MySpace, Facebook, Cyworld, and Bebo have attracted millions of users since their introduction, many of whom have integrated these sites into their daily practices. These sites have changed the way people communicate with each other, helping users find a social network, share common interests, connect with friends, participate in discussion forums, and express themselves through a personalized blog or minihompage.

Social networking sites provide a public discussion that enables the exchange of digital information, such as pictures, videos, text, blogs, and hyperlinks between users with common interests, such as hobbies, work, school, family, and friendship. Popular Social network sites include MySpace, Facebook, Twitter, Bebo etc. Facebook ([www.facebook.com](http://www.facebook.com)) is the most popular social networking site. The use of Facebook has become an international phenomenon, with over 8 million users. Social networking sites (SNSs) particularly evolve around special interests or shared contexts like students populations at universities i.e. students use them typically to stay in contact, communicate their online friends.

## 2. ADOPTION OF SOCIAL NETWORKING SITES IN INDIA

A report released by Analysys Mason (consultancy and research firm) states that India is set to experience social networking boom owing to falling Smartphone prices and the growth of 3G. According to Times of India, Facebook has now 100 million users in India, its largest outside the US, while that of Twitter has more than doubled since January 2014.

Sirjjan preet [16] reported that social media in India is growing at 100% and by 2014, 129.3 million Indians are predictable to join the social media mediums. According to

eMarketer, fastest growth in social networking in 2014 will come from India, followed by Indonesia and China. With an increasing number of users listing on social media websites, Small and Medium Enterprises (SMEs) can successfully use SNS to promote their business.

Simplify 360, a Social Business Intelligence company headquartered in Carrollton, Texas with global clients and operations reported that India takes the third position in the top ten countries with most Facebook users in 2013, with 61.7 million registered accounts, which are 400,000 less than 2012 figure. The density of Facebook users in India is among the lowest in the world though – only one out of twenty Indians has a Facebook account. **In India** the largest age group of facebook users is currently **18-24**, followed by the users in the age of **25-34**. There are **75% male** users and **25% female users in India**, compared to 47% and 53% in Brazil and 59% and 41% in Indonesia.

According to ComScore, a leader in measuring the digital world, comScore presents the 2013 India Digital Future in Focus report. The report says that Indian online population currently ranks as the 3rd largest in the world after China and the U.S. With 75 percent of its internet users under the age of 35, India has the youngest skewing online population among BRIC countries. The Indian blogging audience grew 48 percent in the past year to 36 million visitors, while 26 percent of category traffic comes from mobile phones and tablets. 54 million internet users in India watched online videos on their computer, representing a 27-percent increase over the past year. The objective of the paper is to identify the factors that influence the adoption of SNS in India and relative importance of these factors also the nature and strength of the relationship among these factors.

### 3. LITERATURE REVIEW

Davis's (1989) TAM and its expansions have been broadly well-known and used in the adoption and implementation of IT in the IS area. The TAM posits that perceived usefulness and perceived ease of use are the two main factors determining an individual's intention to accept and use an IS. Perceived usefulness is defined by Davis as "the degree to which a person believes that using a particular system would enhance his or her job performance" (Davis, 1989, p. 320). Perceived ease of use is defined as "the degree to which a person believes that using a particular system would be free from effort" (Davis, 1989, p. 320). Although a large body of research supports the TAM as a good model to explain the acceptance of SNS.

Chang, et al [1] integrated the concepts of conformity tendency and perceived playfulness into the technology acceptance model to explain why people continue to use an SNS. 671 valid questionnaires were collected through the SNS site, Facebook, and used a structural equation model to conduct an

empirical study. The results indicated that for conformity tendencies, informational influence promoted the continued intention to use SNSs through perceived usefulness, not through normative influence. Furthermore, perceived ease of use was the primary factor that predicted whether users would continue using SNSs, and perceived playfulness may have facilitated users' continued intentions to use SNSs. Chen [2] examined members' voluntary use of social networking sites. Drawing upon Social Exchange Theory (SET), a research model was developed that examines the major determinants of member site use behavior through a cost-benefit framework. This model also investigates the key antecedents to site use that stem from website designs, personal traits, and personal beliefs in the environment. Hua and Haughton [4] studied that perceived usefulness and social factors are the two main factors influencing people's adoption of virtual worlds. TAM was acceptable while diffusion of information (DOI) theory did not fit. Perceived enjoyment did not have a significant impact on adoption of virtual worlds, but is highly correlated with perceived usefulness. Kim, et al [5] examined that Networking and relieving stress were the motivation factors which significantly affected behavioral intention to use social networking sites. Motivational factors of networking include friendship, communicate with others, collecting information are regarded as external motivation. Motivational factors of relieving stress include personal interest and satisfaction and thereby, regarded as intrinsic motivation. Ku, et al [6] used an extended Uses and Gratifications Theory (UGT) to explore factors that affect members' continued use intention toward Social Networking Sites (SNSs). They conducted this research in a global context by comparing SNS use in the United States and Taiwan. Their research results indicated that four determinants, i.e., gratifications, perceived critical mass, subjective norms, and privacy concerns, influence SNS users' continuance intention and those regional differences moderate the effects of both gratifications and privacy concerns on continuance intention. Leng, et al [7] examined that perceived enjoyment has more significant effect on attitude towards SNS than perceived usefulness which implies the importance of intrinsic motivation in user adoption on SNS. Perceived behavioral control positively affects intention to use SNS. Romero, et al [8] studied two types of internal constructs trust and perceived risk which can influence the process of acceptance of SNS. Trust effects positively and directly the attitude towards these websites; likewise it effects positively the perceived usefulness and perceived ease-of-use. However, perceived risk influences negatively the intention to use them. Perceived ease-of-use has a negative influence on perceived risk i.e. when perceived ease-of-use is greater, perceived risk will be lower.

Omar, et al [11] attempted to discuss several factors of motivations using SNS towards the quality of work life which include i) interpersonal relationship and ii) personal health and well-being of the staff. It is expected that the discussion of this proposed study will assist to identify the critical motives of

using SNS that lead to better quality of work life. In short, this study will provide significant contribution not only to the employees but also to the designers, developers, researchers, organization and society. Pillai and Mukherjee [12] studied that perceived usefulness emerged as a significant mediator in the case of utilitarian SNS and perceived enjoyment emerged as a significant mediator in the case of hedonic SNS user acceptance phenomenon. Pinho, et al [13] confirmed the explanatory power of TAM in the adoption of SNS by denoting that perceived usefulness and perceived ease-of-use has a impact on attitude towards SNS which in turn impact on intention to use SNS. Shao [14] argued that two usability aspects of UGM like you-tube, facebook, "easy-to-use" and "let users control" enable people to consume, participate, and/or produce in a highly efficient and controllable way so that people can derive greater gratification from UGM use. Shin [15] analyzed the motivation factor of intention to use SNS may be different for two countries which implies needs and values for the countries are different. The study found that Korean users primary motivation is enjoyment which is greatly influenced by perceived involvement (Extrinsic motivation), whereas the US users, main motivation is dependent on how useful they perceive SNSs to be, which is heavily influenced by users' feelings of connectedness (Intrinsic Motivation). Lorenzo-Sledgianowski, et al [17] studied that Perceived playfulness and critical mass were the strongest indicators of intent to use SNS in a hedonic context. Normative pressure was the weakest predictor of intent to use SNS. Perceived trust was found a significant predictor of intent to use SNS therefore, practitioners should be aware that it is important for users to have a perception of trust that their information is not being used in a way not intended by them. Stafford et al [18] examined that people use media either for the content carried by a medium (e.g. information or entertainment) or for the simple experience of the media usage process (surfing) these two broad dimensions are characterized by content gratification and process gratifications. Content gratification concern the messages carried by the medium and process gratification concern actual use of the medium itself. Tanet al [19] examined the impact of privacy concern on the acceptance of social networking websites (SNWs). They found that privacy concern did not directly affect users' acceptance of SNWs. Privacy concern moderate the effect of perceived usefulness and perceived ease of use SNWs. It is obvious that despite the practical implication, little academic research deals with the concerns to identify the factors that influence users' adoption of SNSs. Nasri et al [20] examined empirically the factors that affect the adoption of Facebook by Tunisian students'. Technology acceptance model (TAM) and theory of reasoned action (TRA) as the base model in order to investigate the adoption of Facebook. There is a significant relationship between snoop, news, information receiving and adoption of Facebook.com. Perceived enjoyment has significant effect on perceived usefulness towards Facebook. Yeh, et al [22] studied that Perceived ease of use,

usefulness, social presence and enjoyment generally act as influential factors that results in more favorable intention to use a specific virtual world website and that platform-based and sociability-based interactive qualities are significant antecedents of intrinsic motivations (i.e. social presence and perceived enjoyment). Previous research proposed little insight into this particular subject; so, this study aims to fill the knowledge gap by identifying the factors that influence users' adoption of SNS. Mostly Technology Acceptance Model (TAM) used in previous studies needs to be accustomed over-time due to impact of some factors which change over time such as Social influence, especially in the early majority adoption phase. The current study comes out with new factors which influence the adoption of SNSs that are perceived attractiveness (website characteristics like website design and content quality), trust and perceived risk (privacy risk and security risk) and interaction effect between trust and perceived risk.

### 3.1 Perceived Attractiveness

Social Networking websites are becoming dynamic in nature by consistently adding new features to their websites. This helps SNS to attract greater number of users and compete with each other. Perceived Attractiveness is the term related to the website characteristics like website design and content quality. Websites should comprise high quality web content which facilitates revisit and purchase. Leng et al [8] described that web site design enhances usefulness of the website by introducing interesting features in the websites which the users can easily adopt like games, video/photo sharing, innovative contents, chatting, quick loading capability without the need to have high connection bandwidth etc which entertain user and make them happy. Therefore perceived attractiveness influences perceived usefulness of SNS.

### 3.2 Perceived Risk and Trust

Malhotra et al [9] described an individual's perceived risk as his or her expectation that a high potential for loss is associated with disclosing personal information on social networking sites. According to Mayer et al [10] trust reflects an individual's confidence that personal information submitted to the SNS will be handled competently, benevolently, and with integrity by the SNS. A person's risk and trust beliefs will tend to significantly influence his or her willingness to provide personal information to a SNS. Privacy risk concerned with unauthorized collection and secondary use of personal information which violate trust towards disclosing personal information in SNS. Security Risk concerned with secretly or fraudulently acquire personal information like credit card details, password etc using SNS. Risk perceptions regarding Internet privacy and security have been identified as issues for both new and experienced users of SNS. Perceived Risk act as moderator between trust and perceived usefulness and

indirectly influence the use and adoption of SNS. Lorenzo-Romero et al [8] argued that the more individuals trust a web site, the less effort they put in assessing the generosity of the business people and members; on a trusted site, where consumers assume the benevolence of the online merchant, they will not spend time and cognitive effort browsing across the web site, reading the privacy policy, terms of use, etc. and therefore they will perceive it as easier to use. Gefen et al [3] described that trust also increases certain aspects of perceived usefulness of the websites by making the website trustworthy in business transactions between e-vendors and consumers and the consumer willing to pay a premium price for just that added special relationship with an e-vendor that they trust. Therefore trust influences both perceived usefulness and perceived ease of use and indirectly influences intention to use SNS

#### 4. PROPOSED RESEARCH MODEL

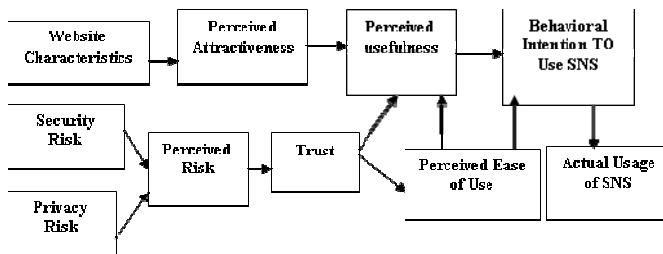


Fig. 1: Proposed Research Model

The proposed research model in Fig. 1 shows that Perceived Usefulness and Perceived Ease of use are major factors influencing intention to use Social networking sites. Perceived Risk has negative influence on Trust. Security risk and Privacy risk together influence perceived risk. Website characteristics such as Website Design and Content quality influence Perceived Attractiveness. Perceived Attractiveness has influence on Perceived Usefulness. Trust has influence on both Perceived Usefulness and Perceived Ease of Use.

#### 5. CONCLUSIONS

This paper explores the factors that influence the adoption of SNSs in India. The proposed model in this study assist in identifying the positive and negative factors which influence the adoption of SNS. This study also uncovers the interaction effect between trust and perceived risk in affecting end user behavioral outcome. Website design and content quality come in first place to attract the users because they usually access social networking sites to set up social relations with their associates or friends or family. Also users can entertain themselves with the websites features like instant messaging or chatting, online games, audio/videos, graphics/animations, photos sharing etc. Previous studies highlighted the importance of Intrinsic motivation in user adoption of SNS so website developer should add fun factors into their sites such

as introducing entertainment rich functions like games, video sharing, innovative contents etc which makes user cheerful. Due to heavy competition website designers are consistently adding new features to their websites to attract greater number of users. This action may result in a change of opinion over the period of time; hence longitudinal research would be advised to understand the change in perception of the users with respect to the change in features of SNS for future research. As trust and security come on the second important place, website developers should ensure that no breach of this trust is possible. In addition it didn't include individual differences such as age, gender that potentially influence as factors in SNS adoption. As there is gender difference in adoption of SNSs in India as 75% users are males while 25% are females. The proposed conceptual model will be validated using SEM technique.

#### 6. SCOPE FOR FUTURE RESEARCH

- Future research should look to the factors influencing the usability of social networking websites such as content quality, features of cultural vitality, local language support and privacy/security.
- Future research will be on how traits and demographic factors impact social media use.
- The model will be examined and constructs will be validated through an empirical study involving Indian SNSs users using structural equation modeling techniques.

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