

# Social Media Research in the Context of Emerging Markets: An Analysis of Extant Literature from Information Systems Perspective

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## Abstract

**Purpose:** Despite the potential of social media in emerging markets (EMs), only few studies published in high quality information systems (IS) journals that have addressed issues related to social media in the context of EMs. This study aims to analyse existing research related to social media published in high quality IS journals for exploring initial research trends, emerging themes, limitations and future research directions in the context of emerging markets.

**Design/methodology/approach:** This study conducted systematic review of 22 articles on social media, which were published in the “Senior Scholars Basket of IS Journals and *Information Systems Frontiers*” from 1997 to 2017. Manual literature search approach (i.e. screening through table of contents of each journal) was employed to identify relevant articles. The content of relevant articles was systematically analysed and synthesised along with keyword analysis to understand research trends on social media related issues in the emerging markets context.

**Findings:** The study identified four major themes from existing research on the social media in the context of emerging markets, namely: 1) Social media frameworks; 2) Social media and consumers; 3) Social media and organisations; and 4) Social media and society with majority of the studies focusing on consumers. Single Subject was found as the major limitation with studies analysed focusing on single platform/country/domain hindering the generalizability whereas including new exogenous variable to improve the validity of existing studies emerged as main future research direction.

**Originality/value:** This study conducted literature review on social media in EMs, which has not been undertaken yet. Moreover, it employed manual search (an effort and time intensive approach) to overcome the shortcomings of keyword search to identify, locate, select and analyse the social media literature in the context of emerging markets.

**Keywords:** Social Media, Emerging Economies, Emerging Markets; Literature Review, Keyword Analysis

**Article Type:** Literature Review

## **1. Introduction**

Social Media has become indispensable part of our day today life. Social networking sites such as Facebook and Twitter are merely regarded as platform for sharing daily updates and pictures by majority of the population (Papazolomou & Melanthiou, 2012). However, these platforms has proved to be low cost information exchange mediums for variety of stakeholders, be they consumers, organisations, or government in order to improve and circulate an central idea (Dwivedi et al. 2016). Social media is defined as group of Internet based applications built on foundations laid by Web 2.0 (current stage of interactive Internet from 2004 to today), which allows seamless creation and exchange of User Generated Content (UGC) that is various forms of publicly available content created by end-users (Kaplan & Haenlein, 2010).

Social media plays a pivotal role in deciding consumer preferences through novel peer-to-peer targeted marketing techniques and demand prediction (Aral et al. 2013; Plume et al. 2016). Such online platforms and applications can also be utilised to facilitate buying and selling of products (Abed et al. 2016; 2015). It has huge scope to accelerate innovation and new product development within organisations by acting as a catalyst for knowledge exchange (Aral et al.

2013; Rathore et al. 2016a). Social media application in organisations takes various forms viz. corporate blogs, employee blogs, crowdsourcing and enterprise social media (Dwivedi et al. 2016; 2015). The majority of these applications help organisations in information sharing, learning and enhancing employees' job performance (Aral et al. 2013). They also facilitate the creation, integration, seeking, transfer, management and contribution of knowledge in organisations (Aral et al. 2013). The greatest advantage of social media applications for firms is that it not only enables them to communicate with their customers but also allows them to communicate with each other (Ismagilova et al. 2017; Mangold and Faulds, 2009). Communication between customers and firms can help to build brand loyalty better than traditional methods (Kaplan & Haenlein, 2010). Societal applications of social media include but not limited to digital democracy, e-politics, open government, community empowerment and civic engagement (Dwivedi et al. 2017; 2016; Kapoor and Dwivedi, 2015).

The unprecedented growth of social media has far-reaching impacts and has inspired research across multiple disciplines from economics to sociology, marketing, computer science, and strategy (Aral et al. 2013). The cross-disciplinary nature of research activity in the social media suggests a central role for information systems (IS) scholars in this domain (Aral et al. 2013). Social Media has become indispensable part of our day today life with 2.3 billion users worldwide representing almost one in three of total world population of 7.39 billion in 2016. In terms of number of internet users emerging markets constitute the majority in the world (Chaffey, 2016). Generally emerging markets is a term used by investors to describe developing country which would give higher returns for their investment accompanied by greater risk. Though these markets may have few characteristics of a developed market still they doesn't meet all standards to be a developed market and they sit between developed markets and 'frontier markets' which are even less developed than EMs (Financial Times, 2017). Also the classification of countries to emerging economies varies between market indices. This study considered all 37 countries listed in Appendix 1 as emerging markets by various group of analysts. The unique features of emerging markets are their high degree of volatility combined with transitions occurring along various dimensions such as economic, political and social (Mody, 2004). The socioeconomic, cultural, and regulative environments of Emerging markets are considerably diverse from majority of the developed western world (Burgess and Steenkamp, 2006; 2013; Roberts et al., 2015). Generalizations of the existing theories may not apply to emerging markets and thus they serves as knowledge laboratories for the advancement of alternative theories to the real world (Burgess and Steenkamp, 2006; 2013;

Roberts et al., 2015). Practically, most of this century economic growth will be contributed by emerging markets. Therefore, it is imperative to understand various types of studies conducted in the context of emerging markets, which will make-or-break issue for most companies around the world (Burgess & Steenkamp, 2006). Within the last decade a large body of literature on social media has appeared in various journals. There are reviews that has integrated emerging body of literature on digital and social media from marketing perspectives (see for example, AlAlwan et al., 2017; Dwivedi et al. 2017ab; Kapoor et al. 2016; Shareef et al., 2016). However, there is a lack of review of extant literature focusing on social media from IS perspective and in the emerging markets context, which would be useful for advancing knowledge in this area. Hence, the aim of this submission is to undertake a review of limited literature (published in high quality IS journals) on social media in emerging markets context.

The remaining paper consists of four sections. The second section deals with literature search approach. This is followed by emerging research themes in section three and keyword analysis in section four. Whereas, limitations and future research directions drawn from extant literature comprises section five and the paper ends with conclusion in the final section.

## **2. Literature Search Approach**

The literature in the area Information Systems is vast however relatively fewer studies have exclusively focused on social media related issues. In order to ascertain extant literature on social media it was essential to gain access to the relevant publications. Manual search was preferred over keyword search as social media is cross-disciplinary covering multitude of disciplines and there is lack of consistent keywords use to cover the topic on its entirety. Keyword search also has limitation to return articles not relevant to social media, due to similarity of keywords used in other disciplines and theory. For instance, keyword search for “Social network” returns articles containing social network theory, which are not necessarily part of social media whereas social media sites like Facebook are also referred to as “social networks”. This research confined literature search to eight leading (also known as Senior Scholars' Basket of Journals) Information Systems journals (namely, *European Journal of Information Systems* (EJIS); *Information Systems Journal* (ISJ); *Information Systems Research* (ISR); *Journal of the Association for Information Systems* (JAIS); *Journal of Information Technology* (JIT); *Journal of Management Information Systems* (JMIS); *Journal of Strategic Information Systems* (JSIS) and *Management Information Systems Quarterly* (MISQ)) and

*Information Systems Frontier* journal in order to identify relevant articles on social media related issues. Although, the journals in Senior Scholars' Basket of Journals<sup>1</sup> is confined only to "IS field" the list recognizes topical, methodological, and geographical diversity. These journals follow stringent review process with widely respected and recognized editorial board members leading to international readership and contribution. Thus, these journals are generally considered high quality IS journals with a high research impact. (Li et al. 2014). This review also included relevant articles published in the *Information Systems Frontier* (ISF). This is because ISF publishes new research and development such as emerging theme of social media<sup>2</sup> and considered as a high quality journal across continents, for example a journal quality ranking by Chartered Association of Business Schools, UK has given it rating of 3 and Australian Business Deans Council (ABDC) has rated it as an 'A' class journal. Due to these reasons, it was considered relevant to include articles published in this journal along with other eight journals.

The relevant articles for this study were identified and downloaded by going through the archive (Table of Contents) of all volumes and issues (for the last twenty years (1997-2017) period) of each journal specified above. PDF files of articles, research notes, introduction, research commentary, editorial overview that were relevant to social media topic were downloaded and numbered to prepare an APA style reference list. The literature search resulted in 181 PDF files. Then Adobe Reader's advanced 'search' function was employed using keywords such as 'Brazil,' 'Russia,' 'India,' 'China,' 'South Africa' and for all 37 emerging countries listed in Appendix 1. The downloaded Social media articles were deemed to be relevant to emerging economies if they met one of the following two criteria: (1) the data collection of research took place in any of these 37 countries, or (2) in the case of cross-cultural research, these 37 countries was amongst one of the nations in the comparison. The articles were screened out if the data was collected in multiple countries but data analysis and findings did not treat any of the emerging economies individually. In the end 22 papers were found relevant for inclusion in this review. Initial screening suggests that majority of these 22 studies were conducted in China.

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<sup>1</sup> <http://aisnet.org/?SeniorScholarBasket>

<sup>2</sup> <http://www.springer.com/business+%26+management/business+information+systems/journal/10796>

### 3. Literature Analysis and Synthesis

This section reviews 22 relevant studies as identified in the previous section leading to synthesis and classification of literature according to nature and context of the issues examined. These articles are classified into the following four broad themes based on their similarities in terms of the area of social media applications: 1) Social media frameworks; 2) Social media and consumers; 3) Social media and organisations; and 4) Social media and society. The complete classification and Meta data including study name, theme type, conceptual development and key observations are provided in table 1 titled social media literature classification in emerging economies.

Study Name	Theme Type	Conceptual Development	Key Observations
Arazy et al. (2010); Baur (2016); Chang et al. (2015).	Social Media Framework	These studies provide framework for organisations, governments and various stakeholders to analyse social media platforms for achieving their marketing, administrative and societal goals.	Social media is truly cross disciplinary with multitude of platforms; hence these three frameworks may not be sufficient to evaluate all kind of social media networks especially given these studies are limited in scope.
Chen et al. (2014); Chiu & Huang (2015); Choi et al. (2015); Shen et al. (2010); Shen et al. (2011); Shi & Whinston (2013); Xu et al. (2016); Yan et al. (2015); Yu et al. (2015); Zhang & Wang (2012); Zhang & Watts (2008); Zhao et al. (2016).	Social Media and Consumers	Studies in this category were conducted on consumers both in individual and community setting of SNS. These studies investigated various parameters influencing consumer's adoption and inhibition to SNS. The examined parameters range from social influence, knowledge sharing, information adoption, privacy related concerns like Self disclosure and embarrassing exposure, aggression intention and continuous usage intention of SNS. In addition, some of the studies examined peer influence on consumers to visit a location and how individuals network position affect their performance. The outcomes are of paramount importance for organisations to target consumers using these platforms, for practitioners and researchers in this field.	Majority of these studies were focussed on single SNS or platform in collectivist culture hence findings might not be generalized to other domain or user culture. More than half of the studies employed cross-sectional data collection method in ever changing social media domain which needs repeated validation over time. Also, few studies investigated only the behavioural intentions of SNS users without examining the actual usage. Since, they were conducted in experimental setup by mocking up the online social networking website.
Cao et al. (2015); Goh et al. (2013); Lu et al. (2015).	Social Media and Organisations	These studies examined various facets of social media usage in organisations like knowledge integration, enhancing employee's job performance and creating economic value through branding. They explain how organisations	The dependent variables examined by these studies are one among the many other indicators measuring the variable. Hence the results of these studies cannot be considered in isolation. For instance, the measurement of job performance

		should design and interact with social media platforms to maximize their economic benefit and enhance value for both external customers (consumers) and internal consumers (employees).	through work and non-work related blog participation is based on a single indicator (Lu et al. 2015).
Ameripour et al. (2010); Oh et al. (2015); Oh et al. (2013); Ling et al. (2015).	Social Media and Society	These studies describe how social media can be leveraged in bringing societal change. Social media tools plays crucial role in collective sense making and spreading information during social crises. The sentiments emerging from SNS tools can be of paramount importance to Governments to develop response strategies for mitigating risks in case of any extreme situation.	Most of these studies focused only on the analysis of Twitter hash tags for collective sense making coded as binary data which could lead to information loss. Also, the studies were conducted in single country or researched one type of event. Hence, these results cannot be generalized to other country or event type.

**Table 1: Classification and summary of existing research on social media in the context of emerging markets**

### ***3.1 Social media frameworks***

Three studies fell under the category of social media frameworks. Studies under this category provided framework for organisations, governments and various stakeholders in this domain to analyse social media platforms for achieving their marketing, administrative and societal goals. Social recommender system framework was designed, developed, and tested by Arazy et al. (2010) based on IS Design Theory and Behavioral Theory with aim of improving prediction accuracy. The results of this framework on movie recommendations found same types of relationships among consumers yield the best recommendation accuracy. Baur (2016) proposed ‘Market Miner’ framework which harness the power of social web in enhancing the understanding of people’s opinions. This framework supports in gathering, combining, analysing, and visualizing multi-language user-generated content. In addition, Chang et al. (2015) introduced the concept of social distance in their model to estimate trust value of content in social networks. Results of their study revealed higher rating scores combined with shorter social distances provide satisfactory trust values, while the opposite happened for subjects presenting lower rating scores in combination with longer distances.

### ***3.2 Social media and consumers***

12 out of 22 studies that we reviewed are focussed on issues media related issues in relation to consumers. These studies were conducted on consumers both in individual and community setting of Social networking sites (SNS). They focused on various parameters influencing

consumer's adoption and inhibition to SNS. Shen et al. (2011) and Sheen et al. (2010) examined consumer's we-intention (i.e. collective intention) to use instant messaging group QQ. While, Shen et al. (2011) study demonstrated desire partially mediates the effects of group norm and social identity on we-intention. Shen et al. (2010) study revealed the effect of gender differences in the development of we-intention. The effects of attitude, positive anticipated emotions, and group norms on we-intention were more important for men, whereas the effects of social identity and negative anticipated emotions were more significant for women to collectively participate in social network-facilitated team collaboration (Shen et al. 2010).

Consumer's privacy related concerns in online social networks like embarrassing exposure and self-disclosure were studied by Choi et al. (2015) and Yu et al. (2015) respectively. Yu et al. (2015) study on Facebook users found that affect toward self-disclosure and SN websites as positive motivators of user's self-disclosure in SNS. Whereas, the results of Choi et al. (2015) on Facebook users revealed that information dissemination and network commonality interact to affect perceived privacy invasion and perceived relationship bonding, which in turn influence individuals' behavioural responses to embarrassing exposures.

The studies of Chen et al. (2014) and Chiu & Huang (2015) explored consumer's active behaviour and continuous usage intention in SNS respectively. Chen et al. (2014), classified active behaviour in a SNS into four categories namely content creation, content transmission, relationship building, and relationship maintenance. Their study on Renren users underlined affective commitment as the most important driver of overall active behaviour of users in an SNS. Meanwhile, Chiu & Huang (2015) study on Facebook users indicates individuals' motivations (i.e., the understanding, orientation and play dependency relations) positively affect parasocial interaction, which in turn has a positive effect on gratification, and subsequently continuance intention in SNS.

The following studies examined parameters ranging from but not limited to consumers knowledge sharing, information adoption and aggression intention in SNS. Zhao et al. (2016) studied consumer's knowledge sharing motivation in Q&A Website. Their findings discovered virtual organizational rewards undermines the effect of enjoyment in helping others on participant's attitude toward knowledge sharing, and reciprocity undermines the effect of knowledge self-efficacy on attitude toward knowledge sharing. The information adoption of consumers when they seek messages contributed by other members to help solve their problem in an online community is influenced by both the argument quality of a posted message and



the credibility of its source (Zhang & Watts, 2008). The study of Xu et al. (2016) on Chinese users' aggression intention in online communities revealed consumers aggression intention is inhibited by internal deterrents of face saving and moral beliefs and may be enhanced through external deterrents, including an effective community policy and peer pressure among community members. Yan et al. (2015) explored customer revisit intention to restaurants by analysing online reviews and discovered food quality, price and value, service quality, and atmosphere as the antecedents of restaurant customers' revisit intention. Whereas the study of Zhang & Wang (2012) assessed the influence of editor's network position in Wikipedia on their contribution behaviour and established free-riding behaviour in collaborative network not only reduces an editor's total effort but also shifts focus to editors own articles. Moreover, Shi & Whinston (2013) examined the influence of "check-ins" made by friends in Location based social networking site. They discovered although the proportion of checked-in friends is not positively associated with the likelihood of a new visit the repeated check-ins by friends are found to have a pronounced effect.

### ***3.3 Social media and organisations***

These studies examined various facets of social media usage in organisations like knowledge integration, enhancing employee's job performance and creating economic value through branding. There were three such studies. Lu et al. (2015) examined the relationship between Corporate Blogging and Job Performance and revealed the structural and cognitive dimensions of social relationships positively affect job performance, whereas the relational dimension showed negative influence. Meanwhile, Goh et al. (2013) evaluated the impact of User Generated Content (UGC) and Marketer Generated Content (MGC) in creating economic value by assessing the content (posts and comments) in Facebook brand community fan page. The results shown engagement in social media brand communities leads to a positive increase in purchase expenditure and UGC exhibits a stronger impact than MGC. The facet of Social Media in knowledge integration support at workplace was evaluated by Cao et al. (2015). The results revealed though social networking does not have direct impact on knowledge integration, their influence is partially mediated by trust and shared language.

### ***3.4 Social media and society***

There were four studies under the final classification of social media and society. These studies examined how social media tools can be leveraged to bring societal change. Oh et al. (2015) evaluated the role of social media during the 2011 Egypt Revolution by analysing Twitter data.

The results discovered ideas key noted through twitter can allow governments to focus on them and develop response strategies to mitigate an extreme situation. Meanwhile, Oh et al. (2013) evaluated the emergence of SNS as social reporting tool during social crises. Their study revealed though content ambiguity does not contribute to rumormongering, source ambiguity does so very significantly highlighting the nature of citizen-centric social reporting behaviour under crises. In addition, Ling et al. (2015) studied the role of ICT during flood in Thailand to conclude social media can empower the community from three dimensions of empowerment process (structural, psychological, and resource empowerment). Also, the study of Ameripour et al. (2010) on online social networks as potential tool of liberation in Iran found that such tools were tempered by the Iranian government adaptation of systems of surveillance and censorship.

#### 4. Keywords analysis

This section present results from the keyword analysis, which was conducted based on keywords collected from 22 articles for purpose of identifying most frequently examined social media research issues. In total, there were 135 keyword occurrences with 114 unique keywords with majority of them just appearing once (103 keywords) or twice (Eight Keywords), which contributed to 119 keyword occurrences. Table 2 lists the frequency of unique keyword occurrence against various studies. “Social network” emerged as the most frequently used keyword with nine occurrence followed by “Social media” with four occurrences in second place and “Text mining” with three occurrences in the third place. There were eight Key words “Instant messaging”, “Knowledge sharing”, “Online communities”, “Social capital”, “Social influence”, “Twitter”, “user-generated content”, and “We-intention” each with two keyword occurrence. This keyword analysis did not show any specific trend reaffirming on the diversity of social media issues currently being examined. The emergence of “Text mining” in top three used keywords emphasize the unique content analysis techniques deployed in content rich social media domain. However, few less represented keywords like “online privacy”, “Social crisis”, “Open data”, and “Open government” with single occurrences needs further exploration on the platform which has evolved from strength to strength from influencing election results to big data.

Keyword	N- No of Key word Occurrences	Example Citations
Social network	9	Ameripour et al. (2010); Chen et al. (2014)
Social media	4	Chen et al. (2014); Oh et al. (2015)
Text mining	3	Baur (2016); Goh et al. (2013)

Instant messaging	2	Shen et al. (2011); Shen et al. (2010)
Knowledge sharing	2	Cao et al. (2015); Zhao et al. (2016)
Online communities	2	Zhang & Watts (2008); Zhao et al. (2016)
Social capital	2	Cao et al. (2015); Lu et al. (2015)
Social influence	2	Shen et al. (2011); Shen et al. (2010)
Twitter	2	Oh et al. (2015); Oh et al. (2013)
User-generated content	2	Baur (2016); Goh et al. (2013)
We-intention	2	Shen et al. (2011); Shen et al. (2010)
<b>Keywords with Only One Occurrences 103; where n = No of Unique keywords</b>		
<p>Approach behavior, Avoidance behavior, Embarrassing exposure, Inaction, Privacy invasion, Relationship bonding (n=6), (Choi et al. 2015); 2011 Egypt Revolution, Collective sense making, Hashtag, Human-machine collaborative information process, Social change, Sociomateriality (n=6), (Oh et al. 2015); Brand community, Communication model, Consumer behavior, Econometric modelling, Marketer-generated content (n=5), (Goh et al. 2013); Community intelligence, Extreme events, Rumour theory, Social crisis, Social information processing, Social reporting(n=6), (Oh et al. 2013); Active involvement, Crowding out, Extrinsic motivation, Intrinsic motivation, Online community participation (n=5), (Zhao et al. 2016); Blogs, Corporate blogs, Digital traces, Job performance, Organizational social media(n=5), (Lu et al. 2015); Affect, Dual processing approach, Online privacy, Online self-disclosure(n=4), (Yu et al. 2015); Delphi study, measurement model, User commitment, Users' active behaviour (n=4), (Chen et al. 2014); Experience goods, Location-based social network, Matrix factorization, Observational learning, Social effect (n=5), (Shi &amp; Whinston, 2013); Effort allocation, Mass collaboration, Natural experiment, Network centrality, Online public goods, Wikipedia (n=6), (Zhang &amp; Wang, 2012); Case Study, Crisis Response, Digital Enablement, ICT-Enabled Community Empowerment, Social Consequences of ICT (n=5), (Ling et al. 2015); Advice Taking, Applied Theoretical Model, Collaborative Filtering, Social Recommender Systems, Theory-Driven Design (n=5), (Arazy et al. 2010); Argument Quality, Disconfirming Information, Focused Search, Heuristic-Systematic Model of Information Processing, Information Adoption, Source Credibility(n=6),(Zhang &amp; Watts, 2008); Continuance intention, Habit, Media system dependency theory, Uses and gratifications theory, (n=4), (Chiu &amp; Huang, 2015);Business intelligence, Design science research, Open data, Open government, Participation, Public sector, Refugees, Social media analytics (n=8), (Baur, 2016); Online rating systems, Self-organizing maps, Trust value(n=3), (Chang et al. 2015); Customer satisfaction, Online reviews, Regression analysis, Revisit intention (n=4), (Yan et al. 2015); Internet of things (IoT), Social Internet of things (SIoT) (n=2), (Cao et al. 2015); Desire, Experience, Social computing, Web 2.0 (n=4; Shen et al. 2011); Aggression, Deterrence, Morals, virtual community (n=4), ( Xu et al. 2016); Anticipated emotions, Gender (n=2), (Shen et al. 2010); Computerisation movements, Conviviality, Iran, Ivan Illich (n=4), (Ameripour et al. 2010).</p>		

**Table 2: Most frequently used keywords**

## 5. Discussions

This section provides a discussion on methodological and contextual issues followed by a discussion on limitations and future research directions drawn from existing research.

### 5.1 Methodology

This study employed manual search approach to download articles pertaining to social media in emerging markets. It is important to note that only 12 per cent of 22 articles from 181 articles published on this topic in top IS journals relates to the context of emerging markets. Given that the context of emerging markets largely different from developed countries (Burgess and Steenkamp, 2006; 2013; Roberts et al., 2015), more efforts should be made to investigate social media related issues unique to this context. It is also evident that many studies (see for example, Dwivedi et al. 2017; 2016; Jain et al. 2016; Kapoor and Dwivedi, 2015; Lakhiwal & Kar 2016;

Rathore et al. 2016b; Upadhyay & Ilavarasan, 2011; Ilavarasan, & Rathore 2015) published (in conference proceedings and less highly ranked journals) on this topic in the context of emerging markets, very few have found place (12 percent of 181) in top IS journals. This suggest that the social media related research undertaken in the context of emerging markets are in early stages of their maturity in terms of both theoretical and methodological rigour. Researchers working on this topic in the emerging markets context should spend more time when conceptualising and designing research, developing theoretical basis, determining methodology, collecting and analysing data in order to be successful in publishing in high quality journals. The major drawback of this methodology is narrow focus on only nine journals although manual search helped not to omit any articles pertaining to social media.

## **5.2 Limitations of Social media in Emerging economies**

This section outlines the major limitations extracted from the 22 articles included in this study. Table 3 categories eight such limitations. Majority of studies fell under “Single subject” category in which the studies were conducted on single SNS, Single domain, single culture/country or single organisation. Ten studies fell under this category. For instance, the study of Yu et al. (2015) was focussed on single culture/country (southern Taiwan) and single SNS (Facebook users), whereas Xu et al. (2016) study was done on single domain (virtual Communities) and study of Goh et al. (2013) was done on single organisation (Single retailer FB fan page). Thus, findings of studies in this category “Single subject” might not be generalizable to other SNS or domain or country or organisation. “Single indicator” came as the second major limitation with seven studies. These studies employed only a Single parameter/indicator or event type to measure the dependant variable in their evaluations. For example, the study of Ling et al. (2015) examined the use of ICT in the light of one type of natural disaster (i.e., flood in Thailand). The dependent variables examined by such studies are one among the many other indicators measuring the variable. Hence, results of these studies cannot be considered in isolation. Surprisingly “No limitations” came as third major category with four studies not mentioning any type of limitations.

The remaining limitation categories are experimental study, measurement scale, self-selection bias, student samples and cross-sectional study. The experimental study of Choi et al. (2015) used mock-up Facebook website to evaluate the consequences of an embarrassing exposure which may not reflect the actual online social networking environment entirely. The results of studies conducted in experimental condition needs validation in actual environment for better reliability (Choi et al. 2015). In the meantime, Self-Selection bias refers to active SNS users

selecting themselves to be part of sample in a survey leading to response bias. The study of Chiu & Huang (2015) which examined individual's continuous intention to use SNS (Facebook) may have been affected by self-selection bias. The sample for the research mostly consisted of active users whose perception might be different from users who have already stopped using Facebook. There were also studies with Measurement scale limitations leading to systemic response biases from the respondents during survey. For instance, the study of Yu et al. (2015) employed bipolar measurement scale for survey as is from previous research which might suffer from systematic response biases, and their reliability cannot be readily assessed. Two studies Arazy et al. (2010) and Shen et al. (2011) mentioned using "Student samples" in their survey as limitation as their results may not be generalize to other segments of social network user population apart from students. Although, more than half of the studies employed cross-sectional methods for data collection just one study Zhao et al. (2016) mentioned it in their limitation. Since social media is ever changing domain the results of studies with cross sectional data collections needs repeated validation over time.

Major Limitations	No of Studies	Explanation	Citations
<b>Single Subject</b>	10	Studies done on single SNS, single SNS domain, Single culture/Country or Single organisation.	Arazy et al. (2010); Chen et al. (2014); Chiu & Huang (2015); Goh et al. (2013); Shen et al. (2011); Shen et al. (2010); Xu et al. (2016); Yu et al. (2015); Zhang & Wang (2012); Zhao et al. (2016)
<b>Single Indicator</b>	7	Single parameter/indicator or event type used to measure the dependant variable	Goh et al. (2013); Ling et al. (2015); Lu et al. (2015); Oh et al. (2015); Shi & Whinston (2013); Yu et al. (2015); Zhang & Wang (2012)
<b>No limitations</b>	4	These studies did not mention any limitations	Ameripour et al. (2010); Cao et al. (2015); Chang et al. (2015); Yan et al. (2015)
<b>Experimental Study</b>	3	Studies Conducted in mock SNS environment and did not measure actual SNS usage	Arazy et al. (2010); Choi et al. (2015); Shen et al. (2011)
<b>Measurement Scale</b>	3	Single, Two Item scale with systematic response biases	Arazy et al. (2010); Yu et al. (2015); Shen et al. (2010)
<b>Self-selection bias</b>	2	Active SNS users selecting themselves to be part of sample leading to response biases.	Chiu & Huang (2015); Goh et al. (2013)
<b>Student samples</b>	2	Results not generalizable to wider SNS user population.	Arazy et al. (2010); Shen et al. (2011)
<b>Cross Sectional Study</b>	1	Data collected at only one point in time.	Zhao et al. (2016)

**Table 3: Social media in Emerging economies: Limitations summary**

### 5.3 Future research directions

This section outlines the major future research directions extracted from the 22 articles (on social media in the emerging markets context) included in this study. Five major future research directions emerged from the 22 studies are listed in Table 4. The major future research direction theme was “Exogenous variables” (i.e) introducing new additional parameters with 13 studies mentioning their existing research model can be extended by modifying the antecedents of the dependant variable to improve the validity of their results. For instance the study of Zhang & Watts (2008) which investigated consumer’s information adoption in online communities stated much research needs to be done in investigating information sharing in online communities for other purposes apart from problem solving. Seven studies mentioned their existing research model could be tested in similar Platforms of SNS to make “Alternate platform” as second major future research direction. For example, Shen et al. (2011) studied the effects social influence processes on we-intention to use instant messaging in QQ platform and recommended that the similar research should be done on other forms of Web 2.0 technologies, such as Wikipedia, YouTube and Flickr to enhance the external validity of the results.

Future Research direction Theme	No of Studies	Remarks	Citations
<b>Exogenous variables</b>	13	Extend and validate the existing research model by modifying the antecedent of dependent variable through introduction of new exogenous variables.	Arazy et al. (2010); Baur (2016); Cao et al. (2015); Chang et al. (2015); Chen et al. (2014); Choi et al. (2015); Oh et al. (2015); Shen et al. (2010); Shi & Whinston (2013); Yan et al. (2015); Yu et al. (2015); Zhang & Wang (2012); Zhang & Watts (2008)
<b>Alternate Platform</b>	7	Test the existing research model in multiple SNS Platforms	Arazy et al. (2010); Chang et al. (2015); Lu et al. (2015); Shen et al. (2011); Yu et al. (2015); Zhang & Wang (2012); Zhao et al. (2016)
<b>Cross-cultural Studies</b>	5	Conduct studies in more than one country with different cultures	Ameripour et al. (2010); Shen et al. (2011); Xu et al. (2016); Yu et al. (2015); Zhao et al. (2016)
<b>Longitudinal data</b>	2	Collect data over a period of time	Zhao et al. (2016); Shen et al. (2010)
<b>Multidimensional Scale</b>	1	Using multidimensional scales over single and Two items scale for survey.	Yu et al. (2015)

#### **Table 4: Social media in Emerging economies: Future Research direction summary**

The remaining categories in future research directions are Cross-cultural Studies, Longitudinal data and multidimensional scale. Only five studies referred to doing cross-cultural studies in their future research directions although all studies were conducted in single country in a collectivist emerging economies context except for Oh et al. (2013) which partially covered USA. The studies of Zhao et al. (2016) and Shen et al. (2010) recommended longitudinal study for their research model in future. The study of Yu et al. (2015) recommended Multidimensional scales over bipolar scale as they can measure user's affective state to SNS more precisely. All these future research direction themes were suggested to improve the reliability and validity of the existing findings in multiple contexts like different culture/country, over longer time period using multidimensional measurement scales.

#### **6. Conclusion**

The analysis of literature presented in this study revealed that majority of the social media studies (that were published in top IS journals) over the last twenty years in the context of emerging markets were conducted in Chinese context. This can be attributed to China's ring-fenced internet economy. These studies focused on Chinese versions of global social media applications such as "WeChat" & "QQ", which are similar to "WhatsApp"; "renren" which is similar to "Facebook" and so on. Despite this China's internet is flourishing inside the wall (Gapper, 2016). This study contributes to both social media and emerging markets literature by identifying and analysing relevant literature and outlining major limitations as well as agenda for future research. This is of paramount importance given the background only few existing studies (that are published in top IS journals) have focused on social media exclusively in the context of emerging markets. The review presented in this article identified four major themes of research in the context of emerging economies such as: 1) Social media frameworks; 2) Social media and consumers; 3) Social media and organisations; and 4) Social media and society. This review has also identified eight major limitations (see Table 3) and five future research directions (see Table 4). The major limitation includes existing studies focusing on single platform/country/domain hindering the generalizability referred as "Single Subject" whereas including new exogenous variable to improve the validity of existing studies emerged as main future research direction.

This study is not without its limitations. The narrow focus on high-quality "Senior Scholars' Basket of Journals and ISF" is major limitation as it resulted in only 22 studies for the review.

Moreover, the classification of studies into various categories involved qualitative judgement. Hence, it would be more appropriate to validate the classification categories and distribution of studies through large sample size in future. Although, this study was ambitious to summarize research on a cross-disciplinary topic such as Social media it has offered reasonably comprehensive review about research trend in emerging economies.

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### APPENDIX 1

Emerging Markets by Each Group of Analysts									
Country	IMF [21]	BRICS+ Next Eleven	FTSE [22]	MSCI [23]	S&P [24]	EM bond inde x[25] 1	Dow Jones <sup>[</sup> 24]	Rus sell <sup>[2]</sup> 6]	Colum bia Univers ity EMGP[ 27]
<u>Argentina</u>	✓					✓			✓
<u>Bangladesh</u>	✓	✓	✓	✓	✓	✓			
<u>Brazil</u>	✓	✓	✓	✓	✓	✓	✓	✓	✓
<u>Bulgaria</u>	✓								
<u>Chile</u>	✓		✓	✓	✓	✓	✓	✓	✓
<u>China</u>	✓	✓	✓	✓	✓	✓	✓	✓	✓
<u>Colombia</u>	✓		✓	✓	✓	✓	✓	✓	✓
<u>Czech Republic</u>			✓	✓	✓	✓	✓	✓	
<u>Egypt</u>		✓	✓	✓	✓	✓	✓		✓
<u>Greece</u>				✓	✓		✓	✓	
<u>Hungary</u>	✓		✓	✓	✓	✓	✓	✓	✓
<u>India</u>	✓	✓	✓	✓	✓	✓	✓	✓	✓
<u>Indonesia</u>	✓	✓	✓	✓	✓	✓	✓	✓	
<u>Iran</u>		✓							
<u>Israel</u>						✓			✓
<u>Malaysia</u>	✓		✓	✓	✓	✓	✓	✓	
<u>Mauritius</u>									✓
<u>Mexico</u>	✓	✓	✓	✓	✓	✓	✓	✓	✓
<u>Nigeria</u>		✓				✓			
<u>Oman</u>						✓			
<u>Pakistan</u>	✓	✓	✓	✓		✓			
<u>Peru</u>	✓		✓	✓	✓	✓	✓	✓	
<u>Philippines</u>	✓	✓	✓	✓	✓	✓	✓	✓	✓
<u>Poland</u>	✓		✓	✓	✓	✓	✓	✓	✓

<u>Qatar</u>				✓		✓	✓		
<u>Romania</u>	✓					✓			
<u>Russia</u>	✓	✓	✓	✓	✓	✓	✓	✓	✓
<u>Slovenia</u>									✓
<u>South Africa</u>	✓	✓	✓	✓	✓	✓	✓	✓	✓
<u>South Korea</u>		✓		✓				✓	✓
<u>Taiwan</u>			✓	✓	✓	✓	✓	✓	✓
<u>Thailand</u>	✓		✓	✓	✓	✓	✓	✓	✓
<u>Turkey</u>	✓	✓	✓	✓	✓	✓	✓	✓	✓
<u>Ukraine</u>	✓					✓			
<u>United Arab Emirates</u>			✓	✓		✓	✓	✓	✓
<u>Venezuela</u>	✓					✓			
<u>Vietnam</u>		✓				✓			