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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 a few studies published in high-quality information systems (IS) journals that have addressed issues related to social media in the context of EMs. The purpose of this paper is 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 EMs.

Design/methodology/approach – This study conducted a 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 the 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 EMs context.

Findings – The study identified four major themes from existing research on the social media in the context of EMs, namely: social media frameworks; social media and consumers; social media and organisations; and social media and society with the majority of the studies focussing on consumers. A single subject was found as the major limitation with studies analysed focussing on single platform/country/domain hindering the generalisability whereas including a 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 have 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 EMs.

Keywords Emerging economies, Social media, Emerging markets, Literature review, Keywords analysis

Paper type Literature review

1. Introduction

Social media has become an indispensable part of our day today life. Social networking sites (SNSs) such as Facebook and Twitter are merely regarded as a platform for sharing daily updates and pictures by the majority of the population (Papasolomou and Melanthiou, 2012). However, these platforms have proved to be low-cost information exchange mediums for the variety of stakeholders, be they consumers, organisations, or government to improve and circulate an central idea (Dwivedi *et al.*, 2016). Social media is defined as the group of internet-based applications built on foundations laid by Web 2.0 (current stage of the 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 and 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.*, 2015, 2016). 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, Ilavarasan and Dwivedi, 2016). Social media application in organisations takes various forms, namely, corporate blogs, employee blogs, crowdsourcing and enterprise social media (Dwivedi *et al.*, 2015, 2016). 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 and 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.*, 2016, 2017; 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 an indispensable part of our day today life with 2.3 billion users worldwide representing almost one in three of the total world population of 7.39 billion in 2016. In terms of the number of internet users, emerging markets (EMs) constitute the majority in the world (Chaffey, 2016). Generally, EMs 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 do not 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 Table AI as EMs by various groups of analysts. The unique features of EMs 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 EMs are considerably diverse from the majority of the developed western world (Burgess and Steenkamp, 2006, 2013; Roberts *et al.*, 2015). Generalisations of the existing theories may not apply to EMs and thus they serve 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 EMs. Therefore, it is imperative to understand various types of studies conducted in the context of EMs, which will make-or-break issue for most companies around the world (Burgess and Steenkamp, 2006). Within the last decade, a large body of literature on social media has appeared in various journals. There are reviews that have integrated emerging body of literature on digital and social media from marketing perspectives (see e.g. AlAlwan *et al.*, 2017; Dwivedi, Rana and Alryalat, 2017; Dwivedi, Rana, Tajvidi, Lal, Sahu and Gupta, 2017; Kapoor *et al.*, 2016; Shareef *et al.*, 2016). However, there is a lack of review of extant literature focussing on social media from IS perspective and in the EMs context, which would be useful for advancing knowledge in this area. Hence, the aim of this submission is to undertake a review of the limited literature (published in high-quality IS journals) on social media in the EMs context.

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The remaining paper consists of four sections. Section 2 deals with the literature search approach. This is followed by emerging research themes in Section 3 and keyword analysis in Section 4. Limitations and future research directions drawn from the extant literature comprise Section 5 and the paper ends with conclusion in the final section.

2. Literature search approach

The literature in the area IS is vast; however, relatively fewer studies have exclusively focussed on social media related issues. In order to ascertain the extant literature on social media, it was essential to gain access to the relevant publications. A 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 in its entirety. Keyword search also has limitation to return articles not relevant to social media, due to the 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 the literature search to eight leading (also known as senior scholars' basket of journals) IS 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[1] are confined only to "IS field", the list recognises topical, methodological and geographical diversity. These journals follow a stringent review process with widely respected and recognised 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[2] and considered as a high-quality journal across continents, for example a journal quality ranking by Chartered Association of Business Schools, the UK has rated it as 3 and Australian Business Deans Council 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 20 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" and "South Africa" and for all 37 emerging countries listed in Table AI. The downloaded social media articles were deemed to be relevant to emerging economies if they met one of the following two criteria: the data collection of research took place in any of these 37 countries, and in the case of cross-cultural research, these 37 countries were amongst one of the nations in the comparison. The articles were screened out if the data were 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 the majority of these 22 studies were conducted in China.

3. Literature analysis and synthesis

This section reviews 22 relevant studies as identified in the previous section leading to synthesis and classification of the literature according to the 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: social media frameworks; social media and consumers; social media and organisations; and social media and society. The complete classification and metadata including study name, theme type, conceptual development and key observations are provided in Table I titled social media literature classification in emerging economies.

3.1 Social media frameworks

Three studies fell under the category of social media frameworks. Studies under this category provided a 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 behavioural theory with the 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 (2017) proposed a "Market Miner" framework which harnesses the power of the social web in enhancing the understanding of people's opinions. This framework supports in gathering, combining, analysing and visualising multi-language UGC. 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

A total 12 out of 22 studies that we reviewed focussed on media-related issues in relation to consumers. These studies were conducted on consumers both in individual and community setting of SNS. They focussed on various parameters influencing consumer's adoption and inhibition to SNS. Shen *et al.* (2010, 2011) examined consumer's we-intention (i.e. collective intention) to use instant messaging group QQ. While Shen *et al.*'s (2011) study demonstrated that desire partially mediates the effects of group norm and social identity on we-intention, Shen *et al.*'s (2010) study also 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.*'s (2015) study on Facebook users found 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 and Huang (2015) explored consumer's active behaviour and continuous usage intention in SNS, respectively. Chen *et al.* (2014) classified active behaviour in an SNS into four categories, namely, content creation, content transmission, relationship building and relationship maintenance. Their study on

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Study name	Theme type	Conceptual development	Key observations
Arazy *et al.* (2010), Baur (2017), Chang *et al.* (2015)	Social media framework	These studies provide a 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 and Huang (2015), Choi *et al.* (2015), Shen *et al.* (2010, 2011), Shi and Whinston (2013), Xu *et al.* (2016), Yan *et al.* (2015), Yu *et al.* (2015), Zhang and Wang (2012), Zhang and 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 affects their performance. The outcomes are of paramount importance for organisations to target consumers using these platforms, for practitioners and researchers in this field	The majority of these studies were focussed on single SNS or platform in collectivist culture hence findings might not be generalised 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 should design and interact with social media platforms to maximise their economic benefit and enhance value for both external customers (consumers) and internal consumers (employees)	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 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.* (2013, 2015), Ling *et al.* (2015)	Social media and society	These studies describe how social media can be leveraged in bringing societal change. Social media tools play a crucial role in a 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 focussed 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 a single country or researched one type of event. Hence, these results cannot be generalised to other country or event type

Table I.
Classification and
summary of existing
research on social
media in the context
of emerging markets

Renren users underlined affective commitment as the most important driver of the overall active behaviour of users in an SNS. Meanwhile, Chiu and Huang's (2015) study on Facebook users indicated 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 organisational rewards undermine 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 and 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 and Wang (2012) assessed the influence of editor's network position in Wikipedia on their contribution behaviour and established free-riding behaviour in collaborative network that not only reduces an editor's total effort but also shifts focus to editors own articles. Moreover, Shi and Whinston (2013) examined the influence of "check-ins" made by friends in location-based SNS. 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 that 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 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 lead 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

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rumour mongering, 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 presents the 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 the majority of them just appearing once (103 keywords) or twice (eight keywords), which contributed to 119 keyword occurrences. Table II lists the

Keywords	N – no. of keyword 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 (2017), Goh *et al.* (2013)
Instant messaging	2	Shen *et al.* (2010, 2011)
Knowledge sharing	2	Cao *et al.* (2015), Zhao *et al.* (2016)
Online communities	2	Zhang and Watts (2008), Zhao *et al.* (2016)
Social capital	2	Cao *et al.* (2015), Lu *et al.* (2015)
Social influence	2	Shen *et al.* (2010, 2011)
Twitter	2	Oh *et al.* (2013, 2015)
User-generated content	2	Baur (2017), Goh *et al.* (2013)
We-intention	2	Shen *et al.* (2010, 2011)

Keywords with only one occurrence 103; where n = no. of unique keywords

Approach behaviour, avoidance behaviour, 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 behaviour, 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, organisational 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 factorisation, observational learning, social effect ($n = 5$) (Shi and Whinston, 2013); effort allocation, mass collaboration, natural experiment, network centrality, online public goods, Wikipedia ($n = 6$) (Zhang and 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, focussed search, heuristic-systematic model of information processing, information adoption, source credibility ($n = 6$) (Zhang and Watts, 2008); continuance intention, habit, media system dependency theory, uses and gratifications theory ($n = 4$) (Chiu and Huang, 2015); business intelligence, design science research, open data, open government, participation, public sector, refugees, social media analytics ($n = 8$) (Baur, 2017); online rating systems, self-organising 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)

Table II.
Most frequently
used keywords

frequency of unique keyword occurrence against various studies. "Social network" emerged as the most frequently used keyword with nine occurrences followed by "Social media" with four occurrences in second place and "Text mining" with three occurrences in the third place. There were eight keywords "Instant messaging", "Knowledge sharing", "Online communities", "Social capital", "Social influence", "Twitter", "user-generated content" and "We-intention" each with two keyword occurrences. 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 emphasises 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 occurrence need further exploration on the platform which has evolved from strength to strength from influencing election results to big data.

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 EMs. It is important to note that only 12 per cent of 22 articles from 181 articles published on this topic in top IS journals relate to the context of EMs. Given that the context of EMs 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 e.g. Dwivedi, Rana and Alryalat, 2017; Dwivedi, Rana, Tajvidi, Lal, Sahu and Gupta, 2017, 2016; Jain *et al.*, 2016; Kapoor and Dwivedi, 2015; Lakhiwal and Kar, 2016; Rathore, Shioramwar and Ilavarasan, 2016; Upadhyay and Ilavarasan, 2011; Ilavarasan, and Rathore, 2015) published (in conference proceedings and less highly ranked journals) on this topic in the context of EMs, very few have found place (12 per cent of 181) in top IS journals. This suggests that the social media related research works undertaken in the context of EMs are in early stages of their maturity in terms of both theoretical and methodological rigours. Researchers working on this topic in the EMs 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 III categories eight such limitations. The 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.*'s (2016) study was performed on single domain (virtual communities) and the study of Goh *et al.* (2013) was performed on single organisation (single retailer FB fan page). Thus, the findings of studies in this category "Single subject" might not be generalisable 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

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Major limitations	No. of studies	Explanation	Citations
Single subject	10	Studies were done on single SNS, single SNS domain, single culture/country or single organisation	Arazy *et al.* (2010), Chen *et al.* (2014), Chiu and Huang (2015), Goh *et al.* (2013), Shen *et al.* (2010, 2011), Xu *et al.* (2016), Yu *et al.* (2015), Zhang and Wang (2012), Zhao *et al.* (2016)
Single indicator	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 and Whinston (2013), Yu *et al.* (2015), Zhang and Wang (2012)
No limitations	4	These studies did not mention any limitations	Ameripour *et al.* (2010), Cao *et al.* (2015), Chang *et al.* (2015), Yan *et al.* (2015)
Experimental study	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)
Measurement scale	3	Single, two items scale with systematic response biases	Arazy *et al.* (2010); Yu *et al.* (2015), Shen *et al.* (2010)
Self-selection bias	2	Active SNS users selecting themselves to be part of sample leading to response biases	Chiu and Huang (2015), Goh *et al.* (2013)
Student samples	2	Results not generalisable to wider SNS user population	Arazy *et al.* (2010), Shen *et al.* (2011)
Cross-sectional study	1	Data collected at only one point in time	Zhao *et al.* (2016)

Table III.
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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, the results of these studies cannot be considered in isolation. Surprisingly, "No limitations" came as the 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 need validation in the 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 the sample in a survey leading to response bias. The study of Chiu and 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 the survey. For instance, the study of Yu *et al.* (2015) employed bipolar measurement scale for the survey as is from previous research, which might suffer from systematic response biases, and their reliability cannot be readily assessed. Two studies of Arazy *et al.* (2010) and Shen *et al.* (2011) mentioned using "Student samples" in their survey as a limitation as their results may not be generalised 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 an ever-changing domain, the results of studies with cross-sectional data collections need repeated validation over time.

5.3 Future research directions

This section outlines the major future research directions extracted from the 22 articles (on social media in the EMs context) included in this study. Five major future research directions emerged from the 22 studies are listed in Table IV. 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 and Watts (2008) which investigated consumer's information adoption in online communities stated much research need 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 on similar platforms of SNS to make "Alternate platform" as a second major future research direction. For example, Shen *et al.* (2011) studied the effects of 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.

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 the single country in a collectivist emerging economies context except for Oh *et al.* (2013) which partially covered the 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 a 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 20 years in the context of EMs

Future research direction Theme	No. of studies	Remarks	Citations
Exogenous variables	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 (2017), 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 and Whinston (2013), Yan *et al.* (2015), Yu *et al.* (2015), Zhang and Wang (2012), Zhang and Watts (2008)
Alternate platform	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 and Wang (2012), Zhao *et al.* (2016)
Cross-cultural studies	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)
Longitudinal data	2	Collect data over a period of time	Zhao *et al.* (2016), Shen *et al.* (2010)
Multidimensional scale	1	Using multidimensional scales over single and two items scale for survey	Yu *et al.* (2015)

Table IV.
Social media in emerging economies: future research direction summary

were conducted in the Chinese context. This can be attributed to China's ring-fenced internet economy. These studies focussed 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 EMs 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 a few existing studies (that are published in top IS journals) have focussed on social media exclusively in the context of EMs. The review presented in this paper identified four major themes of research in the context of emerging economies such as: social media frameworks; social media and consumers; social media and organisations; and social media and society. This review has also identified eight major limitations (see Table III) and five future research directions (see Table IV). The major limitation includes existing studies focussing on single platform/country/domain hindering the generalisability referred as "Single Subject", whereas including a 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 the major limitation as it resulted in only 22 studies for the review. Moreover, the classification of studies into various categories involved a 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 summarise research on a cross-disciplinary topic such as social media it has offered reasonably comprehensive review of research trend in emerging economies.

Notes

1. http://aisnet.org/?SeniorScholarBasket
2. www.springer.com/business+%26+management/business+information+systems/journal/10796

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Further reading

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Appendix

Country	IMF	BRICS+ Next 11	FTSE	MSCI	S&P	EM bond index	Dow Jones	Russell	Columbia University EMGP
Argentina	✔					✔			✔
Bangladesh	✔	✔	✔	✔	✔	✔			
Brazil	✔	✔	✔	✔	✔	✔	✔		✔
Bulgaria	✔								
Chile	✔		✔	✔	✔	✔	✔	✔	✔
China	✔	✔	✔	✔	✔	✔	✔	✔	✔
Colombia	✔		✔	✔	✔	✔	✔	✔	✔
Czech Republic			✔	✔	✔	✔	✔	✔	
Egypt		✔	✔	✔	✔	✔	✔		✔
Greece				✔	✔		✔	✔	
Hungary	✔		✔	✔	✔	✔	✔	✔	✔
India	✔	✔	✔	✔	✔	✔	✔	✔	✔
Indonesia	✔	✔	✔	✔	✔	✔	✔	✔	
Iran		✔							
Israel						✔			✔
Malaysia	✔		✔	✔	✔	✔	✔	✔	
Mauritius									✔
Mexico	✔	✔	✔	✔	✔	✔	✔	✔	✔
Nigeria		✔				✔			
Oman						✔			
Pakistan	✔	✔	✔	✔		✔			
Peru	✔		✔	✔	✔	✔	✔	✔	
The Philippines	✔	✔	✔	✔	✔	✔	✔	✔	✔
Poland	✔		✔	✔	✔	✔	✔		✔
Qatar				✔		✔	✔		
Romania	✔					✔			
Russia	✔	✔	✔	✔	✔	✔	✔	✔	✔
Slovenia									✔
South Africa	✔	✔	✔	✔	✔	✔	✔	✔	✔
South Korea		✔		✔					
Taiwan			✔	✔	✔	✔	✔	✔	✔
Thailand	✔		✔	✔	✔	✔	✔	✔	✔
Turkey	✔	✔	✔	✔	✔	✔	✔	✔	✔
Ukraine	✔					✔			
United Arab Emirates			✔	✔		✔	✔	✔	✔
Venezuela	✔					✔			
Vietnam		✔				✔			

Table AI.
Emerging markets by each group of analysts

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