Research on the State of Social Media Studies in Malaysia: 2004-2015

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ABSTRACT

In the recent years, the advancement of social media plays a phenomenal role in the Malaysia's media and academic landscape. Social media have garnered massive adoption among the online population, paving way for scholars to understand on the usage and impact of social media on the users in the country. The rising amount of research on social media illustrates a growing interest in this phenomenon. Despite the budding interest among scholars, the understanding on the research patterns and status on social media studies in Malaysia is still inadequate, comparing with the research trends analyses in the West. This paper investigated the trends of social media research in Malaysia from 2004 to 2015. A quantitative content analysis was conducted on 79 articles in 21 selected academic journals in identifying the methodological approach, theoretical application, topical, social media type, type of content and research developmental phases of social media scholarship. Findings revealed social media research in Malaysia is still in formative stage but increasing throughout the years. Unlike findings from past analyses, theory-driven articles in Malaysia were more prevalent than theoretical presence in the West. Nonetheless, Malaysian scholars still lack in conceptualisation and expansion of theories. The study suggests for a more explicit theoretical foundation and technology advancement in the future research. This study also suggests that future scholarly endeavours should have better methodological rigour and wider dispersion of social media medium and content type.

Keywords: *Social media, research trends, content analysis, Malaysian users, scholarly work.*

INTRODUCTION

The advent of social media has garnered immense usage globally, bringing users together for daily communication, business transactions, information and more. This new communication technology is easy to use and entertaining in interacting with other users online. Among the social media types available include collaborative projects (i.e. Wikipedia), blogs and microblogging (i.e. Blogspot or Twitter), content communities (i.e. YouTube or Flickr), social networking sites (i.e. Facebook or LinkedIn), virtual game world (i.e. World of Warcraft) and virtual social world (i.e. Second Life) (Kaplan & Haenlein, 2010). Statistics exhibit that around one billion Internet users are on Facebook, 200 million are tweeting in Twitter, 800 million are on YouTube and 200 million connects on LinkedIn (Pick, 2013).

Social media is not only favoured by international users, but is also becoming a popular medium for Malaysians. According to We Are Social website in September 2016, Malaysia is ranked in eighth place (62%) for having active accounts on top social network (We Are Social, 2016). Facebook is the leading social media site in Malaysia with 84.2% users, followed by Twitter (14.3%), LinkedIn (2.4%), Google+ (2.6%) and other lesser known social media applications (1.1%) (MCMC, 2013). The statistics above illustrate social media is one of the most engaging online communication platforms for everyone.

Consequently, scholars showed great interest in garnering new knowledge regarding social media to explicitly explain on the changing communication patterns and habits of the users as well as on its effects on users. Scholars believed there is a paradigm shift from mass communication to interactive digital communication (Baran & Davis, 2012; Khang, Ki & Ye, 2012), where audience are no longer passive but becoming active users, prosumers or producers (Khang, Ki & Ye, 2012). Social media lets users create user generated content (i.e. text messages, audios, videos, pictures and more) as well as in receiving, interpreting and modifying them (Chafee & Metzger, 2001). Idid (2014) also concur with the notion where he noted on how the communication process and concepts have changed and highlighted on the importance of understanding the significance of social media diffusion and its impact on the users in Malaysia.

Indeed, social media research has since burgeoned significantly along with the advancement of the new communication technology. Scholars were seen to discuss varied topics including on threats and privacy, users' identity and reputation, usage and gratification, social media as information avenue, effects of social media and more (Ishak, Sidi, Jabar, Sani, Mustapha & Supian, 2012; Mun, Li & Fernandez, 2011; Abdulahi, Samadi & Gharleghi, 2014; Azizuddin, Sani & Zengeni, 2008; Balakrishnan & Shamim, 2013; Hamid, Ismail, Ishak & Yazam, 2013; Muhamad Zaki Mustafa et al., 2013; Wok, Idid, Misman & Rahim, 2012; Muniandy & Muniandy, 2013). Although early publications have addressed on social media, the retrospective knowledge and progression on social media research in Malaysia is limited when compared with the Western's research trend analyses. It is therefore imperative to review literature of social media research to look for the significance of this new media on Malaysian users and the state of social media related studies. This is to determine larger patterns and occurrences in research (Kamhawi & Weaver, 2003) as well as progression of social media in the nation. This is because some of the research trends applied in mass communication research might differ with those in understanding the social media phenomenon.

Consistent with the earlier analyses of research trends, this study strives to improve knowledge on social media research by exploring journal articles in Malaysia. This study scanned publications of social media studies on Malaysian users from the year of its inception (2004) until the recent literature (2015) in providing a detailed outlook of the research patterns and trends. Specifically, this study investigates the (1) theoretical foundations, (2) methodological approaches, (3) prominent topics, (4) social media type, (5) content type and (6) development stage of social media research.

LITERATURE REVIEW

Past studies in the West have examined on research trends of the Internet, new media, social media and social networking sites (SNS) in communication journals (Kim & Weaver, 2002; Cho & Khang, 2006; Khang, Ki & Ye, 2012; Zhang & Leung, 2014). These studies employed quantitative content analysis to look into research trends of new media in mass communication (Tomasello, Lee & Baer, 2010); theoretical and methodological trends of communication research on the Internet (Kim & Weaver, 2002), social media studies (Khang, Ki & Ye, 2012) and patterns of SNS research in mass communication (Zhang & Leung, 2014). Findings revealed new media or social media research trend assessment focused on topic, methodologies, theories, research developmental stages, authorial, social media type, data collection or sampling methods and more.

Few scholars in Malaysia have given attention to the evolution of the communication field by observing communication research needs (Hassan & Salleh, 1990), communication identities (Merican, 2005) and communication scholarship (Idid, 2014). Past research trends analyses in Malaysia have also assessed on social media studies such as Twitter, wikis and YouTube published in journals (Alias, DeWitt, Siraj, Syed Kamaruddin & Md Daud, 2013; Alias, Sabdan, Abdul Aziz, Mohammed, Hamidon & Jomhari, 2013; Alias, Abd Razak, elHadad, Mat Noh, Kunjambu & Muniandy, 2013). However, the number of research patterns analyses on social media is scarce and primarily focused on variables such as topical, methodological and categorisation of issues. In contrast to Western studies, we are still lacking in understanding the theoretical aspect of social media studies, types of social media commonly studied and in categorising the development phases of social media research.

Assessing the theoretical usage in research recognises notable theories and progression of theories applicable with social media studies. Some scholars believed theories used for social media phenomenon might be similar or different with those utilised for communication research. Accordingly, there is a need to identify the theoretical application to see the development of theories that are suitable to integrate with social media issues.

Previous studies also mentioned there is a gap in literature in observing the research developmental phases of social media studies in the country (Kim & Weaver, 2002; Cho & Khang, 2006; Khang, Ki & Ye, 2012). Therefore, it would also be interesting to see at which research development stage that Malaysia is in for social media studies. The development of social media research in Malaysia is based on the categorisation made by Wimmer and Dominick's (2011) research phases in mass media model. In their model, the first stage is on issues about the social media itself. The second phase is on the uses and users of social media. The third stage is mainly on the effects of social media, while the fourth is on social media improvement, highlighting on future directions, innovations, new concepts or theories in social media studies (Cho & Khang, 2006; Kim & Weaver, 2002; Wimmer & Dominick, 2011). Specifically, the present study examined the following general research questions:

RQ1: What are the frequencies, proportions and occurrences of social media related articles on Malaysian users from 2004 until 2015?

RQ2: What are the research statuses or patterns of social media studies in Malaysia (i.e. theoretical application, methodological status, social media type studied in, type of content explored on, topical area of interest, and development status of research)?

METHOD

Sample

This study analysed the status of research related to social media on Malaysian users from 2004-2015 in 21 communication, media, social sciences and humanities journals in Malaysia. The journals were selected because they are prominent and quality academic publications in Malaysia (Malaysian Citation Index, 2015) to illustrate the evolution of social media research. The year 2004 is the starting point of analysis, signifying the year when social media became mainstream medium of communication (Boyd & Ellison, 2007; Khang, Ki & Ye, 2012). To portray the current stature of social media research, 2015 was selected as the ending period of study. The 11-year timeframe intends to provide a detailed picture of the progression of social media research.

Our present study selected seven leading communication and media journals in Malaysia such as *Malaysian Journal of Communication, Malaysian Journal of Media Studies, Global Media Journal-Malaysian Edition, Journal of Language and Communication, The Journal of the South East Asia Research Centre for Communication and Humanities (SEARCH), Journal of Media and Information Warfare as well as Journal of Human Development and Communication.*

For social sciences and humanities discipline, 14 journals were selected including *Journal of Malaysian Studies, International Journal of Asia Pacific Studies, The Asian Journal of Humanities, eBangi Journal of Social Sciences and Humanities, AKADEMIKA, SARJANA, JATI: Journal of Southeast Asian Studies, PERTANIKA: Journal of Social Sciences & Humanities, Jurnal Kemanusiaan, PERSPEKTIF: Jurnal Sains Sosial dan Kemanusiaan, Universiti Tun Abdul Razak e-Journal, Voice of Academia, International Academic Research Journal of Social Science and Journal of International Studies.*

Selection of Articles

Our analysis is on full-length research papers only, excluding book reviews, commentaries, editorials and letters. Specifically, the articles were selected based on the search of the following keywords in the title and abstract of the research: "new media", "social media", "social media usage or adoption", "social media effect or impact", "online social network" or a particular social media and the research must be on Malaysian users. In particular, this present research borrowed from Kaplan and Haenlein's (2010) categorisation of social media including collaborative project, blogs and microblogging, content communities, social networking sites, virtual game world and virtual social world.

This study utilised quantitative content analysis to determine the research patterns and occurrences of social media studies. We adopted a framework analysis from prior trend analyses (Kim & Weaver, 2002; Cho & Khang, 2006; Khang, Ki & Ye, 2012; Zhang & Leung, 2014) including exploring the variables of: *communication theories applied, methodological approach used, social media type studied on, type of content commonly studied on, topics most frequently presented and social media related research developmental stage in Malaysia.*

Coding Scheme

The unit of analysis for this study is on all paragraphs in the abstract, theoretical framework and methodology sections of the selected research paper. The characteristics of social media research were coded according to the following variables: (1) theoretical application, (2) research method, (3) research orientation, (4) research approach, (5) sampling method, (6) data collection method, (7) data analysis approach, (8) social media type, (9) type of content, (10) topic areas and (11) research developmental stages.

Theoretical Application

We coded each paper in terms of theory presence and the name of communication theory. To analyse whether a study is theory driven, we identified theory (including theoretical framework and model) as a systematic explanation linked together by relational statements to observe and test the relationships between social media issue or phenomenon (Khang, Han, Shin, Jung & Kim, 2015; Kim, Hayes, Avant & Reid, 2014; Keyton, 2006). If the theory or theoretical framework employed is from other area of discipline, the variables were coded as non-communication theory. When more than one communication theory was mentioned, the dominant one was coded.

Methodological Approach
Each social media article was coded for research method (i.e. content analysis, experiment, survey, in-depth interview, focus group, ethnography, participation observation, analytical review, case study, critique, legal and more). The study also coded for research approach (quantitative or qualitative approach or mixed methods). For research orientation, we coded in terms of empirical or non-empirical. We also coded for sampling method used (i.e. probability, non-probability, both or not specified). For data collection method, each published article was coded according to online (i.e. email, online survey, online experiment), offline (i.e. phone interview, face-to-face interview), both or not specified. Finally, data analysis approaches were identified (i.e. content analysis, meta-analysis, critical analysis, discourse analysis, textual analysis or thematic analysis, secondary analysis, statistical analysis).

Social Media Type
This variable refers to the social media type that is most commonly studied on. This study segments social media type based on the definition of Kaplan and Haenlein (2010) which are (1) collaborative project, (2) blogs and microblogging, (3) content communities, (4) social networking sites, (5) virtual social worlds and (6) virtual game worlds.

Content Type
Employing from previous trends analyses (Potter & Riddle, 2007; Li & Tang, 2012), this current research looks into the type of content. This variable is categorised as: news (i.e. editorial or information), advertising (i.e. marketing communication, persuasion or public relations) and entertainment.

Topical Areas
To assess research topics, we adopted and revised coding schemes outlined from previous studies (Cho & Khang, 2006; Khang, Ki & Ye, 2012; Zhang & Leung, 2014). In particular, a total of nine categories were formed as guidelines:
1. Social media usage, perception and attitude towards social media.
2. Effects of social media on users and society.
3. Social media as either mass or personal communication tools.
4. Social or political issues regarding social media.
5. Social media for impression management and friendship performance.
6. Threat or privacy issues in social media.
7. Social media in comparison with other media.
8. Regulation or policy issues related to social media.
9. Other topics

Research Developmental Phase
We also coded for the developmental stages of research according to the four phases of mass media research suggested by Wimmer and Dominick (2011) such as: (1) on social media itself, (2) uses and users of social media, (3) effects of social media and (4) improvement of social media.

Inter-coder Reliability

Two graduate students were trained as coders in conducting the content analysis. Approximately 10% of the total samples were randomly selected to evaluate the inter-coder reliability. To measure the reliability, this study utilised Cohen's (1960) *kappa* (K). This research achieved an average inter-coder reliability of .83. Coders independently analysed randomly selected journal articles for the inclusion as social media related study, and the agreement was 100%. Out of 92 extracted journal articles, 9 randomly selected articles were coded. The inter-coder reliability coefficients were 1.0 for theoretical application; 1.0 for type of theory; .82 for research methods; 1.0 for research approaches; .80 for research orientation; .67 for sampling methods; 1.0 for data collection methods; .83 for data analysis approaches; .83 for social media types; .33 for type of content and 1.0 for research topics.

RESULTS

Frequency and Occurrences of Published Social Media Studies

Table 1 shows the frequency of social media related studies in each selected journal. A total of 3014 full-length articles were published in the 21 selected journals from 2004 to 2015. Only 92 papers were related to social media (3.1%). But, 13 papers pertaining to social media were disregard as those studies were not focused on Malaysian users. After the data reduction, 79 social media papers on Malaysian users were extracted for this study's content analysis.

The results revealed journals in communication and media discipline (*n*=51) published higher numbers of social media related papers than journals in the fields of social sciences and humanities (*n*=28). The *Malaysian Journal of Communication* (*n*=24, 30.3%) had the highest proportion of social media research, followed by *PERTANIKA* (13.9%), *Malaysian Journal of Media Studies* (11.4%), *eBangi* (8.9%), *Journal of Media and Information Warfare* (8.9%), *Global Media Journal-Malaysian Edition* (8.9%), *Journal of Malaysian Studies* (6.5%), *AKADEMIKA* (3.8%), *SEARCH* (2.5%), *Voice of Academia* (2.5%), *Journal of Language and Communication* (1.3%), and *Journal of Human Development and Communication* (1.3%).

Table 1: Number of social media related articles on Malaysian users from 2004-2015

Journal Name	Frequency of articles (*n*)	Percentage (%) (*n*=79)
Malaysian Journal of Communication	24	30.3
PERTANIKA	12	13.9
Malaysian Journal of Media Studies	9	11.4
eBangi	7	8.9
Journal of Media and Information Warfare	7	8.9
Global Media Journal-Malaysian Edition	7	8.9
Journal of Malaysian Studies	5	6.3
AKADEMIKA	3	3.8
SEARCH	2	2.5
Voice of Academia	2	2.5
Journal of Language and Communication	1	1.3
Journal of Human Development and Communication	1	1.3
TOTAL	**79**	**100**

Moreover, continuous growth can be seen in the publication trends of social media over the 11-year period (See Table 2). The findings indicated that no papers regarding social media was published before 2006, but has since increased markedly. The greatest proportion

of articles was in 2015 (34.2%). Figure 1 showed the trends of publication between two phases of the 11-year timeframe. The first phase was in between 2004 until 2009, to mark its early emergence as well as when social media is known in the mainstream of media and communication. While the second phase (2010-2015) projected the period when social media is becoming increasingly popular and fully embraced by Malaysians. The results illustrated that more articles were published in the second phase (91%; *n=*72) than the first phase (9%; *n=*7), implying that social media is a budding interest among scholars.

Table 2: Social media research on Malaysian users by year

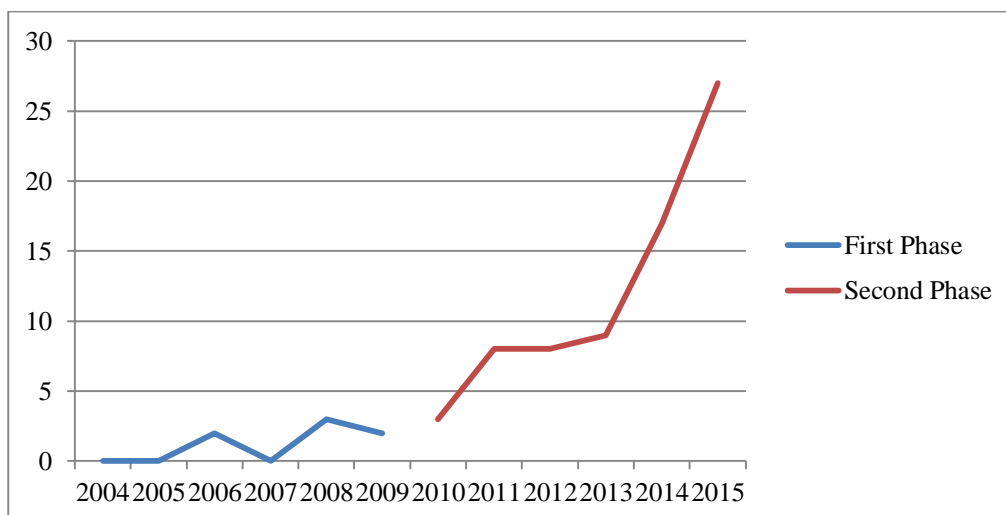| Year	Frequency (n=79)	Percentage (%)
2006	2	2.5
2008	3	3.8
2009	2	2.5
2010	3	3.8
2011	8	10.1
2012	8	10.1
2013	9	11.4
2014	17	21.5
2015	27	34.2
TOTAL	**79**	**100.0**

Figure 1: Trend of social media research between the years 2004-2009 and 2010-2015

Theoretical Application
The review of theoretical trends in social media studies showed more than half of the studies were theoretically driven (62%, *n=49*) (See Table 3). Other papers did not refer to any theory (38%). Based on the analysis, findings showed there are 46 identified theories. The theories cited most frequently were *uses and gratifications theory, constructivist theory of learning, agenda-setting theory, diffusion of innovations theory, social penetration theory, media richness theory, social presence theory, technology acceptance model (TAM), communities of practice theory (COP) and dialogic communication theory.*

The remaining 37 theories were spread out over the theory-driven papers: *media systems dependency theory, framing theory, unified theory of acceptance and use of technology (UTAUT), public sphere concept, multistep flow theory, dynamic awareness theory, u-curve model, communication privacy management (CPM), modernisation theory,*

uncertainty reduction theory, life satisfaction theory, Horman's exchange theory, strength-of-weak-ties theory, self-categorisation theory, Fogg's prominence-interpretation theory, sociocultural theory, social exchange theory, information-seeking theory, domain theory, social influence theory, cues filtered out approach, lens model approach, heuristic principles, scaffolding strategies, elaboration likelihood model, motives and frequency model, pedagogy, social interaction and technology (PST) model, Rank's model of persuasion, Searle's speech act framework, Baskaran local language reference framework, model for confidence policing adapted from Jackson and Bradford's mode, second-order model of empowerment, analytic hierarchy process (AHP), social network component, Herbert's taxonomy of compliment response strategies, hermeneutics and online peer review framework. It was particularly notable that the discipline of communication was associated with most of the identified theories. However, results also showed that other fields also contributed to social media research including psychology, education, language, sociology and more.

Research Topics

As demonstrated in Table 3, the topic most frequently examined was "social media usage, perception and attitude towards social media" (38%, *n*=30). The second most dominant topic was "social or political issues regarding social media" (21.5%, *n*=17), followed by "social media as either mass or personal communication tool" (19%, *n*=15), "effects of social media on users and society" (8.9%, *n*=7), "social media for impression management and friendship performance" (6.3%, *n*=5), "social media in comparison with other media" (3.8%, *n*=3), "threat or privacy issues in social media" (1.3%) and other issues (1.3%).

During the first five years (2004-2009), the most popular topics were "social media usage, perception and attitude towards social media", "social media as mass or personal communication tools", "social or political issues on social media" and "social media for impression management and friendship performance". In the second phase (2010-2015), scholars had more interest in the social media phenomenon by exploring "social media usage, perception and attitude towards social media", "social and political issues on social media", "social media as either mass or personal communication tool", "effects of social media on users and society", "social media for impression management and friendship performance", "social media in comparison with traditional media" and "threat and privacy issues of social media".

Methodological Preference

Table 3 showed the frequencies and proportions of research methods, approaches, orientations, sampling methods, data collection methods and data analysis approaches. Survey (38%, *n*=30) was the research method most prevalent. This was followed by content analysis (17.7%, *n*=14), analytical review (12.7%, *n*=10), in-depth interview (8.9%, *n*=7), other research method (7.6%), not mentioned (6.3%), ethnography (3.8%), focus group (2.5%), participant observation (1.3%) and case study (1.3%). In terms of research approaches, the data demonstrated that quantitative research (41.8%, *n*=33) were more prevalent than qualitative (17.7%, *n*=14). This is then followed by not mentioned (34.2%) and mixed methods (6.3%).

The most commonly employed research orientation was empirical studies (46.8%), followed by not mentioned (51.9%) and non-empirical (1.3%). The most studied data sampling method was non-probability sampling (50.6%), followed by not mentioned (39.2%) and

probability (10.1%). Another worthy of attention finding was on the comparison of data collection methods. The data revealed that offline methods (36.7%, *n*=29) were more commonly utilised than online (30.4%, *n*=24). This is followed by not mentioned (25.3%) and both methods (7.6%). The statistical analysis was more prevalent in data analysis (27.8%), followed by content analysis (20.3%), textual/thematic analysis (3.8%), discourse analysis (1.3%), not mentioned (41.8%) and other data analysis approach (5.1%).

Social Media of Interest
The results showed that social networking sites (31.6%), followed by social media in general (27.8%), blogs or microblogging (27.8%), not mentioned (6.3%), other social media type (3.8%), content communities (1.3%) and virtual social worlds (1.3%) (See Table 3). Other social media types include new media, chatrooms and Whatsapp.

Type of Content
The most commonly studied type of content was news or information (51.9%, *n*=41). Other studies dealt with entertainment (24.1%) and advertising or public relations (5.1%). Some studies did not mention any specific type of content (24.1%).

Developmental Phases of Research
Table 3 indicated that social media research in Malaysia has gone through the four phases of research in mass media (Wimmer & Dominick, 2011). Journal articles focused mainly on the "uses and users of social media" (51.9%), followed by effects of social media (25.3%), social media itself (20.3%) and improvement of social media (2.5%).

Table 3: Research trends of social media related studies on Malaysian users 2004-2015

Research Trend	Journal Articles (n=79)
Theoretical Presence	Yes (62%)
	No (38%)
Research Topics	Social media usage, perception and attitude (38%)
	Social or political issues (21.5%)
	Social media as mass or personal communication tool (19%)
	Effects of social media on users and society (8.9%)
	Social media for impression management and friendship performance (6.3%)
	Social media in comparison with other media (3.8%)
	Threat or privacy issues (1.3%)
	Other issues (1.3%)
Research Methods	Survey (38%)
	Content analysis (17.7%)
	Analytical review (12.7%)
	In-depth interview (8.9%)
	Other research method (7.6%)
	Not mentioned (6.3%)
	Ethnography (3.8%)
	Focus group (2.5%)
	Participant observation (1.3%)
	Case study (1.3%)

Research Approaches	Quantitative (41.8%)
	Not mentioned (34.2%)
	Qualitative (17.7%)
	Mixed methods (6.3%)
Research Orientations	Empirical (46.8%)
	Not mentioned (51.9%)
	Non-empirical (1.3%)
Sampling Methods	Non-probability (50.6%)
	Not mentioned (39.2%)
	Probability (10.1%)
Data Collection Methods	Offline (36.7%)
	Online (30.4%)
	Not mentioned (25.3%)
	Both (7.6%)
Data Analysis Approach	Not mentioned (41.8%)
	Statistical analysis (27.8%)
	Content analysis (20.3%)
	Other data analysis approach (5.1%)
	Textual/thematic analysis (3.8%)
	Discourse analysis (1.3%)
Social Media Medium	Social networking sites (31.6%)
	Social media in general (27.8%)
	Blogs or microblogging (27.8%)
	Not mentioned (6.3%)
	Other social media type (3.8%)
	Content communities (1.3%)
	Virtual social worlds (1.3%)
Type of Content	News/information (51.9%)
	Not mentioned (24.1%)
	Entertainment (19%)
	Advertising/public relations (5.1%)
Research Developmental Stage	Social media itself (20.3%)
	Uses and users of social media (51.9%)
	Effects of social media (25.3%)
	Improvement of social media 2.5%)

DISCUSSION AND CONCLUSIONS

Since its emergence, social media is seen thriving in Malaysia, providing interactive means for communication to the online users. With the increasing numbers of the online population embracing this new media, it provides us new opportunities for research to understand the usage and effect of social media on the Malaysian users. Thus, this paper provided a comprehensive and most updated research trend study regarding social media scanning from when it is in the mainstream of communication (2004) to the latest literature (December 2015) and insights for future research endeavours.

Throughout the assessment of the state-of-play on social media research, we can see an upward trend on the frequency of studies in Malaysia. Although social media research on

Malaysian users is relatively low at 79 published articles, but a definite increase can be seen since the year 2006. The tremendous progression further notes that scholars are keeping up with the rising adoption of social media. Furthermore, the rising of scholarly works on the phenomenon is parallel with the increase of social media usage among Malaysians. The findings coincided with previous research trends analyses in the US and China. According to Khang, Ki and Ye (2012), only 5.5% of 7,987 papers published in advertising, communication, marketing and public relations journals from 1997-2010 were on social media. Similarly, new media research in China was also limited but increasing from 2000 until 2007 (Wei, 2009). Henceforth, scholars can expect more publications on social media phenomenon in the future.

In terms of theoretical foundations, findings showed theoretical presence in social media research was considerably high, portraying a positive and encouraging trend. This result contradicts with previous literature of theoretical trends. In Malaysia, past studies revealed that Malaysian scholars were lacking in conceptualising or applying theories in research (Hassan & Salleh, 1990; Merican, 2005; Idid, 2014). In addition, research trends analyses in the Western countries illustrated that communication and social media related research are atheoretical with approximately 15-40% of the articles presented an explicit theory or theoretical framework (Kamhawi & Weaver, 2003; Bryant 7 Miron, 2004; Cho & Khang, 2006; Khang, Ki & Ye, 2012). Interestingly, we can conclude with the advancement social media as well as better research facilities; there are more theoretical experts and noticeable theoretical application to clarify the processes of social media usage and its consequences to the users in Malaysia.

But, the findings stated theory building among Malaysian scholars is categorically formative, where it is still evolving. Only few studies were on generalisation and extension of theories. Thus, further research on social media need to be solidified and elaborated with more concepts and theoretically-motivated studies. Construction of concepts and theories are encouraged to understand the phenomenon better that may not be explained by existing theory, concept or model. Scholars such as Weaver (2000) and Scolari (2009) have argued that there is a need to develop new concepts or refine established theories to suit with the new communication technology. In addition, the prevalent adoption of existing theories such as uses and gratifications, diffusion of innovations theory, TAM and more in social media studies also raises inquiry on the suitability of Western concepts in the Malaysian landscape. The results revealed that the conceptualisations of local theories are limited. In this study, local theories refer to concepts or perspectives that are more relevant to the Malaysian values, culture and context. Past studies show that theories from the West might not be applicable or suitable for issues experienced by other traditions, culture and values (Kim, 2002; Dissanayake, 2009; Abdullah, 2010). Therefore, more localised theories should be applied for future social media research in the nation.

Additionally, Malaysian scholars have looked into varied topics related to the many aspects of social media phenomenon. The topical landscape is similar with the West. For example, studies that were most prevalent include usage, perception and attitude towards new media between 1994 and 2003 (Cho & Khang, 2006) and towards social media from 1997 to 2010 (67.7%) (Khang, Ki & Ye, 2012). When we compare the topics of interest between the two periods of the 11-year timeframe, the data revealed during the early emergence of social media in the country (2004-2009), scholars greatly emphasised on "social media usage, perception and attitude towards social media", "social media as mass or personal communication tools", "social or political issues regarding social media" as well as "social

media for impression management and friendship performance". In the latter period (2010-2015), scholars were more robust by investigating other areas of the matter: "social media usage, perception and attitude towards social media", "social and political themes in regarding social media", "social media as either mass or personal communication tool", "effects of social media on users and society", "social media for impression management and friendship performance", "social media in comparison with traditional media" and "privacy and security issues on social media". Thus, it can be inferred that in keeping pace with the fast-changing of this technology, scholars gave greater attention on the different aspects of the social media phenomenon.

In Wimmer and Dominick's (2011) classification, the topics of social media research in Malaysia belonged to all stages of the four-phase evolution model of media research. The most frequently emphasised stage was on uses and users of social media (the second phase), followed by the effects of social media (third phase), social media itself (first phase) and improvements of social media (fourth phase). Compared to the research landscape in the West, the social media research agenda in Malaysia is equivalent to the earlier analyses on the developmental stages of social media research done by Khang, Ki and Ye in 2012. However, there is a dire need for more research on the improvement of social media as we are lacking in conceptualising new ideas, concepts or theories as well as technological development. Hence, future endeavours of more fundamental research are needed to deepen the knowledge on the extension and creation of concepts and theories that are applicable for this new communication technology. The improvement of theoretical footings among Malaysian scholars will further advance the quality of research in Malaysia, making way for the local academic journals to be in the same level with the international and high ranked publications.

With regards to research methods preferred, the predominantly employed method was survey, followed by content analysis. The findings coincided with past assessment on research methods trends in Malaysia and in the US. According to prior analyses, survey and content analysis methods were widely employed in communication and social media research in Malaysia between the years 1970s and 2013 (Hassan & Salleh, 1990; Idid, 2014) as well as in Western countries from 1997 to 2010 (Khang, Ki & Ye, 2012). Nonetheless, more research is needed to utilise other types of research methods including qualitative methods, participatory and more to expand our understanding on social media.

We also noticed that quantitative research approaches were dominantly utilised in social media articles and the Malaysian Journal of Communication showed the highest proportion. This is then followed by qualitative and mixed methods. Other articles reviewed did not mention a specific approach, failing to demonstrate methodological rigour. The findings concur with Hassan and Salleh (1990) and Idid's (2014) scholarly work on communication trends indicating that quantitative research were the most frequently employed. The same sentiment can be seen in the trends analyses of the Western scholars, where Zhang and Leung (2014) stated that quantitative approaches were more dominant in social networking sites studies (75%) from the year 2006 until 2011. Similarly, Khang, Ki and Ye's (2012) assessment also revealed that quantitative methods were mainly used in social media research between the years of 1997 and 2010. Hence, it can be concluded that Malaysian scholars preferred quantitative method in yielding empirical insights on social media. This is may be due to the publications or journals' demand for more scientific and empirical data. Therefore, it is suggested that future studies take more effort to conduct

qualitative and mixed methods research toward more balance utilisation of research approaches.

In light of research orientation, the present study showed that empirical studies were slightly more employed than non-empirical research. However, most of the articles did not mention any specific orientation, further noting that they were not explicit and detailed. Moreover, pertaining to the frequency of data sampling methods in social media publications, the most commonly researched method involved non-probability sampling. Existing research also mentioned that non-probability sampling were most prevalent in the Western countries. According to Khang, Ki and Ye's (2012) review of social media studies, non-probability sampling methods were mainly employed at 79.7%. Similar results can be seen in Cho and Khang's (2006) scholarly work on Internet research trends analyses. A total of 76.1% of the publications utilised non-probability sampling, followed by 23.9% probability sampling. But, there were also a large amount of social media articles that did not mention a particular data sampling method. Thus, we require a clearer definition and explanation of data sampling methods for future studies. Moreover, utilisation of the probability sampling methods are also encouraged as this type of sampling is perceived to be one of the best methods in generalising population of a study as well as in supporting or refuting a research hypothesis (Wimmer & Dominick, 2006).

Regarding online versus offline data collection methods, the analysis of this study indicated that offline methods (i.e. face-to-face surveys) were slightly more utilised. Similar findings were seen in Cho and Khang's (2006) study on the Internet's research trends. Their findings emphasised that offline data collection methods (58.9%) were more prevalent than online techniques (41.1%). However, the patterns found contradict with the past analysis on social media trends. Khang, Ki and Ye (2012) said that online method (i.e. email interviews, surveys conducted via Internet) was most preferred. Although offline techniques are more reliable and of good quality, online data collection also has several advantages for the scholars. Gathering data through surveys on the Internet makes the data collection process faster and widespread. Hence, Malaysian scholars should also instil more of the online methods to understand the social media phenomenon.

Notably, social media studies on Malaysian users has mostly utilised the statistical analysis such as structural equation modelling, ANOVA, multiple regressions, Partial Least Squares structural equation modelling, Chi-square test, multivariate statistic, Pearson correlation test, linear regression, Rasch analysis and more. This is then followed by content analysis, textual or thematic analysis and discourse analysis. It can be implied that scholars preferred measurable analysis techniques to explain their social media related data and results. However, most of the studies analysed did not mention a specific approach. Thus, more attempts are needed to improve the data analysis rigor for social media studies.

It can be concluded that the methodological stature in social media research is concerning as most of the articles reviewed were not meticulous and explanative in their research. This is alarming as it will have a significant influence towards the quality of a journal article. The lack of methodological rigor portray low standard of quality in research writing, making it harder for the studies to be considered in the same level as other international and high ranked publication avenues.

Furthermore, in terms of the social media type most often studied, this current study reported that social networking sites is the most popular, followed by social media in general, blogs or microblogging, other social media type, content communities and virtual social worlds.

Not surprisingly, pertaining to social networking sites related studies, most of them focused on Facebook. This finding is well expected since Facebook is the leading social network in Malaysia (MCMC, 2013) and Malaysian users are perceived to have the highest average number of friends on Facebook (233 friends), 80% more than the global users (Muniandy & Muniandy, 2013). Interestingly, the results concur with past literature of Zhang and Leung (2014). Their review on social networking sites research in communication journals from 2006 to 2011, Facebook was the most commonly researched (44.3%), followed by MySpace (13.1%) and others. Another popular concern on social media research was on the type of content. For the past 11 years, the most prevalent type of content studied on was news or information, followed by entertainment and advertising or public relations.

In conclusion, while this present study has examined social media related articles across communication, media, social sciences and humanities journals, the data may not be entirely inclusive and exhaustive. The assessment of this present study has successfully enriched the knowledge of scholars on research directions; however, future studies should delve deeper by tapping in more journals and other disciplines for more comprehensive insights on the trends and patterns of social media research. Henceforth, this study's goal is to present a broad overview on the trends of social media research in Malaysia as well as to assist other scholars by recommending future directions for studies on social media. We hope that this study has opened up the opportunity for future insightful articles on the trends of social media research.

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