

The Role of Social Media in Innovation and Creativity: The Case of Chinese Social Media

Jiwat Ram¹(✉), Siqi Liu¹, and Andy Koronois²

¹ International Business School, XJTLU, Suzhou, China
jiwat.ram@gmail.com

² School of Information Technology & Mathematical Sciences,
University of South Australia, Adelaide, Australia

Abstract. Social media has revolutionised our daily lives, both at individual and organisational levels. This presents an opportunity for businesses to drive growth and create value by tapping into the power of co-creation using social media. Despite its significance, little research exists on how social media could be used for innovations and creativity, and even moreso in the Chinese context with the mass penetration of social media. This study attempts to address this gap in knowledge by examining the role of social media in facilitating innovations in Chinese context. Given the exploratory nature of the research, we will conduct approximately 40 interviews with respondents such as marketing and communication managers from a wide range of industries including retail and service sectors. We will analyse data using Nvivo. The findings will provide guidelines to managers to put in place tailored strategies to optimise the benefits of social-media interactions for organisational growth.

Keywords: Social media · Innovation · Creativity · Social Networking Services (SNS) · Web 2.0 · Interactive content · Facebook · Twitter · LinkedIn · Google+ · Weibo · Wechat

1 Introduction

There has never been a time when the role of social media in the modern context is so fundamental and diverse. As Facebook, Google+ and Twitter penetrate our lifestyles, residences, transportation systems and working environments wherever there are electronic devices, social media has moved society into cyber space [1]. Added to that is the emergence of new habits, friendships, and an information boom. Specifically, businesses adopt social media as a channel for building and distributing information and values. As a platform that engages millions of users in cyber space, allowing free voices and the rapid flow of information in diverse forms, it enables businesses to collaborate with customers in new and innovative ways [2; p. 36].

Businesses utilise social media for several different means including innovations and creativity. As Tierney and Drury [3] pointed out, social media has multiple uses many of which are in the composite measure of innovation and creativity. Innovation is a term that describes “introducing of something new” [4]. An innovation can be in

terms of product, market, material and business models. For example, one of the major applications of innovation is in product design.

Because of the characteristics of social media in that it encourages self-generated content and sharing, companies could gather ideas from online communities and receive feedback conveniently [5]. The ideas generated by external contribution and used in internal design are called open-innovation [6; p. 24]. Besides product design, companies use social media for new marketing methods and customer relationship management [7]. Social media helps to form a virtual customer environment and creates online communities, which could enable companies to better interact with customers [8]. Not only could managers learn from customers' demands, but also they could enhance brand loyalty by various online marketing strategies. Loyal customers in return could serve as champions for the brands.

Social media is a perfect tool for internal management as well [9]. Employees could get to know each other in a cost-efficient way and enhance communications in the workplace. In this way, knowledge and experience in the enterprise context would be integrated actively. More recently, the term 'Organisational Social Media' has been used to describe the implementation of social media at an organisational level [10]. By doing this, various enterprise level activities will be supported, including relationship management, knowledge sharing, learning and creation. Other general uses of social media in innovation include disaster management [33], campaigns of social political organisations [11], special events [12], city marketing [13] and higher education [14].

As social media has gained huge proliferation in China in the past decade, the country has become the largest social media user in the world [15]. In 2014 alone, it is estimated that there were 560 million users in Q-zone—the largest Chinese SNS platform, and the estimated value of Q-zone at the end of 2012 was 11.24 billion, only second to Facebook, which has a value of 29.12 [16]. According to Chiu [17], the penetration rate of social media is 46 %, and netizens in China spend approximately 40 % of their online time in social media interactions.

The increase in the number of users and the type of platforms used for social media interactions has also led to new business practices in the Chinese business environment [17]. The issues surrounding internet supervision and the cultural context in China has brought about unique phenomena and business practices as well. For instance, the most eye-catching, self-created content is sometimes frivolous, rather than news-driven, and trends are sometimes manipulated through fraudulent accounts [18].

The use of social media in China, and globally, has resulted in a large number of studies with most of them focusing on theoretical analysis or conceptual frameworks. Some studies have conducted case analysis to summarise web-portal links and a variety of statistics to develop models of users' strategies. However, there is a paucity of empirical studies in the context of China and how social media is affecting the life and business environment in China. This study attempts to fill this gap in knowledge and investigates the role of social media in innovation and creativity in businesses in China. Specifically, we will examine the role of innovation and creativity in the creation of new business models, product designs, relationship management or marketing strategies. With this in mind, the study sets out to answer the following research questions:

What role does social media play in facilitating innovations and creativity in businesses in China? What type of innovations does it facilitate specifically?

This study is significant as it investigates an issue in an unexplored research area, and is expected to add to the body of knowledge on how social media can help in innovation and creativity. The findings will not only contribute towards theoretical development, but will also provide insights for managers and business owners about how to best leverage social media for growth of their enterprises. Moreso, the study will be significant in the Chinese context as little research exists in this area.

2 Literature Review

2.1 Social Media

Business-related usage of social media has seen a tremendous growth in the last decade. Social media is a type of Web 2.0 platform—an integrated platform where user-generated resource can be co-created, shared and amended *via* constantly developing software [19]. As Web 1.0 relies more on one-way communication, Web 2.0 emphasises the multi-channel interaction and user-oriented flow of information. Social media focuses on the social properties of the application of Web 2.0 technology. [20] define social media as “a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content” (p. 61). However, the concept of social media is often mixed up with Web 2.0 and user-generated content.

One of the prominent forms of social media is Social Networking Services (SNS), which embraces many specific functions such as maintaining and manipulating existing social networks. Simultaneously, the display of relationships and a public profile are key features of SNS [21].

2.1.1 Social Media in China

Since 2013 China has the world’s largest social network market [22]. Chinese social network scene is characterised by a large amount of information exchange and government supervision [18]. Over three millions messages are posted on websites every day, in the form of BBS, blogs, communities and so on. Moreover, above 66 % of Chinese netizens are active users who convey their viewpoints via the internet frequently [23]. The leading network is Qzone, which has 645 million users and a valuation of 11,237 billion USD [23]. Another representation is Sina Weibo, a fast-growing website similar to Twitter, with 250 million registered accounts generating 90 million posts per day. The accounts in Weibo are categorised into three types of user accounts, in which a verified user account commonly denotes a famous figure in the public eye or a company in China [18].

A subdivisional graph of Chinese social media markets was made by Crampton [15], dividing social media into seven functional blocks. Besides crossovers, there is a significant difference between Chinese social media compared with its foreign counterparts.

2.1.2 Functions of Social Media

Moore [24; p. 50] argue that social media offers one prominent characteristic; its function is to realise multiple kinds of social activities started by anyone using applications or on the platform. The development of social media has effectively shaped the way people behave and think. Not only can people easily reach across distances and exchange opinions conveniently, but also they are the direct content-makers of the information online [25]. Businesses no longer have the deciding rights over consumers regarding the information they want available to view, and have to passively become “observers” [20]. In order to equip corporations with the notion of the various forms of activities social media can generate, a honeycomb pattern of seven functional blocks has been raised [26]. These blocks are specific facets of user experience provided by different social media service: presence; relationships; identity; reputation; sharing; conversations; and groups. They are not mutually exclusive and each social media site could choose several facets of service.

2.2 Use of Social Media for Innovation and Creativity

Defined by Schumpeter [27; p. 47], innovation denotes “carrying out new combinations”. This definition could be further specified into five subgroups: the introduction of a new product, process of production; new market; resource of supply or intermediate products; or new form of organisation. It is also a common belief that the innovation process is a collaboration and interaction between users, suppliers, companies and original designers. [28]. Cooper [35] has identified “strategy” and “power” to be the fundamental factors between organisation structure and the type of innovation. Past study [39] proved that innovation projects that rely on external resources outperform those on internal resources, especially in regards to development time and the required investment.

Due to the fact that innovation can take place in various ideological settings, past studies often categorise it into several subdivisions [4]. In terms of the areas where innovation influences, it could be separated into product and process innovation. In terms of the extent of changes accordant with innovation, it could be identified as radical or incremental. Another classification method is to divide it as a technological or an administrative innovation [36, 38, 40].

The study of utilisation of social media in innovation has been prevalent in the past decade. As Culnan [8] comment, the platform itself would not generate any revenue unless particular information is created and shared.

2.2.1 Customer Relationship Management and Virtual Customer Environment

One direct usage is the construction of online customer communities or say, virtual customer environment (VCE). Such VCE could be used to benefit several business sectors, including branding, sales, customer service and product development [8]. Once communities form, they serve as a champion for the brand, defending its reputation and resisting all negative information towards it. Busscher [41] discovered that customers tend to appeal to brands that offer campaigns with relevant eye-catching content,

which show up on several platforms and have applications on media. Another study shows that customer loyalty is positively correlated to the rising amount of beneficial campaigns, popular relevant content and the appearance of brand names on various social media websites [37]. Based on this result, it is not difficult to understand why social media is a perfect choice for a brand to share technological-related, interesting content and to organise communities easily.

2.2.2 Open Innovations and Co-creation

Open innovation is a term initially defined by Chesbrough [6] as a concept that firms should explore both internally and externally to advance their technology and market. The definition was further improved to be “the use of purposive inflows and outflows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation, as they look to advance their technology” [34; p. 1]. Past research has discovered a curvilinear relationship between search strategy and innovation performance [28].

Ståhlbröst [29] have drawn a conceptual framework for user recruitment and involvement in open-innovations, in which the four factors: content, platform, innovation process and community play vital roles. Social media has definitely enhanced open-innovation by its characteristics of speed, flexibility, reach and interactivity, as has been concluded in the study of [5]. They found that companies are using various internet-based tools to involve customers with their product design process. Because social media could easily carry dialogues in a cost-efficient way to global-wide users, companies can obtain user opinions and expertise [30]. Another study [31] states that social media helps with the implementation of ideas, rather than the acquisition of these.

2.2.3 Organisational Social Media

Organisational social media (OSM) is newly defined as technology that supports intra- and extra-organisational communication especially employees, management teams and external stakeholders [10]. It is a channel for a variety of activities that maintain relationships and interactions in the context of an organisation. Typical OSM includes SNS, Weichat and blogs. However, OSM differs from the general concept of social media in many aspects [32] Firstly, while the current revenue model of public social media aims to attract people to consume more time on the platform, it is obviously not the case in OSM. Secondly, the scale of OSM is not comparable to public size. As social media gains millions in audiences easily, OSM could mainly focus users within an organisational context, and maintain the real-life working circle. Furthermore, the feature of content in OSM is professional, while in the large public space it tends to be casual.

3 Methodology

Given the exploratory nature of the investigation, this study takes a qualitative approach to data collection and analysis. We will use an open-ended, semi-structured questionnaire for the interviews. The respondents are from industries including retail,

such as food, clothing, travel, and service sectors including finance, IT, and media to name a few. The potential respondents are those who may be working as media communicators, marketing managers or process managers, as we expect them to have the knowledge of core business and the role of social media in facilitating innovations within their organisations. We plan to conduct approximately 40 interviews. Currently, based on our personal network, we have identified target respondents in an advertising agency, Top 500 financial institutions, city broadcast station, music company, and an international business school. We intend to extend our pool of potential respondents by using personal social networks as we enter into the data collection phase.

Interviews will be carried out either online or in a face-to-face environment and each interview is expected to last for approximately an hour. All the interviews will be conducted in the Chinese language so that subjects can convey their opinions in a comfortable way. The research questionnaire will be given or sent ahead of the interviews to the respondents, so that they feel better prepared for the interviews. The interviews will be digitally recorded, and written notes will also be taken of the respondents' answers during the interviews.

The recorded interviews will be then transcribed and translated into the English language. We will use content analysis employing Nvivo software to analyse the data. The use of Nvivo is expected to facilitate identification of underlying themes and critical issues through iterative coding and refinement procedure, and subsequent development of theory.

Initially, we will perform a detailed coding of the themes emerging from the data. We will do open coding to get an understanding of broad themes, and subsequently drill down and do further coding to extract new themes and sub-themes. Also we will analyse the linkages, patterns and connections among various themes and sub-themes. The patterns and inter-linkages emerging from the data will then be further analysed taking a comparing and contrasting approach by examining the perception of different types of respondents, such as the industry sectors, etc.

The analysis will focus on generating knowledge of how social media facilitates innovations and creativity within organisations. The findings will help us understand how information collected through social media interactions is channelled and leveraged into new ideas for product development, service improvements, business process improvements and development of new business strategies and models. We will also be able to generate an understanding of how organisations develop and build social media interactions and platforms that allow them to collect useful information and then transform information into knowledge in order to develop innovative solutions for growth of their business.

3.1 Questionnaire Development and Interviews

The authors have developed a semi-structured questionnaire. The questionnaire has four parts. The first part collects information on respondents' profile including position/title of interviewee, type of organisation, size of organisation, type of industry, and the major competitors of respondent's organisation.

The second part includes general questions such as: type of social media used by the respondents' organisation, its influence/impact on organisation, the business value created by the social media for the organisation and how it is used for building social capital. The third part of the questionnaire includes specific questions that seek to assess the impact of use of social media on innovation and ideas generation, co-creation and uniqueness for the use of social media for creativity in Chinese context.

The fourth part covers questions on the challenges and future applications of social media, and the recommendations and suggestion for the future use of social media for innovation and creativity. The data collection process has started and some interviews have been conducted.

4 Implications for Theory and Practice

The results of the study have several implications for theory and practice. From a theoretical perspective, firstly the study is a step towards development of a theoretical framework for understanding the innovation process facilitated by social media. Secondly, the study will identify the key elements of an innovation process ignited by social media. Thirdly, we will identify some of the issues that may be hindering the generation of innovations that otherwise could be facilitated by social media. Finally, we will provide some understanding of the platforms that may be more important for the generation of innovation through social media and hence open up opportunities for further exploration and set research direction.

Managerially, this study will provide guidelines to managers on how to leverage social media revolutions to their advantage. Secondly, the study will help managers put in place tailored strategies to optimise the benefits of social media for their organisational growth. Thirdly, the research findings will help managers prioritise their attention and focus on specific social media platforms that are compatible to their core business operations to create value for the business. Fourthly, the study will also provide some guidance to managers to decide the type of innovations they should try to achieve through social media platforms. Finally, the study will help managers in understanding the elements that inhibit innovations and creativity, which otherwise could be made possible from their social media platforms.

5 Limitations and Future Research Directions

The study has some limitations as well. First, being an exploratory study, the research will be collecting data from respondents representing a limited number of industries. Second, given the objective and the exploratory nature of the study, caution should be exercised in considering generalisation of the findings. Third, the study will come up with evidence of new processes and elements that generate innovations, with an aim to set the platform for further research.

The study is a significant milestone in social media research and sets out the direction of further research in a potentially unexplored area. Therefore, it opens up a number of opportunities for future research. Further research can be done by covering

more industries and interviewing respondents including senior managers. More research is warranted in understanding how the innovation process facilitated by social media is different from the classical models of innovation process. Also further research could be conducted by taking a longitudinal approach to unravel the drivers and inhibitors of the innovation process facilitated by social media. The qualitative study could be followed up with quantitative cross-section survey-based studies to generalise the findings.

6 Conclusion

The onset of social media provides enormous opportunities to put in place strategies to create value from wide ranging and heterogeneous interactions in cyber space. One of the main applications is its usage in product development, customer relationships and marketing strategy. Our research explores business practices within the context of Chinese businesses. It aims to develop an initial preliminary understanding of how social media can facilitate innovations and creativity. Our study on the role of social media in driving innovations, especially the interaction between the properties of social media and innovation types, provides a unique perspective on social media research and innovation management. Moreover, it provides practical models for decision-makers who wish to utilise social media for furthering innovation success.

The study set the tone for future research on how to leverage the creation of online content. The findings will provide a research platform to look at existing co-creation models and develop a robust model of innovations through co-creation.

References

1. Barnes, N.G., Jacobsen, S.: Adoption of social media by fast-growing companies: innovation among the Inc. 500. *J. Mark. Dev. Competitiveness* **7**(1) (2013)
2. Qualman, E.S.: *How social media transforms the way we live and do business*. Wiley, New York (2012)
3. Tierney, M.L., Drury, J.: Continuously improving innovation management through enterprise social media. *J. Soc. Media Organ.* **1**(1), 1 (2013)
4. Gopalakrishnan, S., Damanpour, F.: A review of innovation research in economics, sociology and technology management. *Omega* **25**(1), 15–28 (1997)
5. Sawhney, M., Verona, G., Prandelli, E.: Collaborating to create: the internet as a platform for customer engagement in product innovation. *J. Interact. Mark.* **19**(4), 4–17 (2005)
6. Chesbrough, H.W.: *Open Innovation: The New Imperative for Creating And Profiting from Technology*. Harvard Business School Press, Boston (2003)
7. Habibi, M.R., Laroche, M., Richard, M.O.: Brand communities based in social media: how unique are they? evidence from two exemplary brand communities. *Int. J. Inf. Manage.* **34**(2), 123–132 (2014)
8. Culnan, M.J., McHugh, P.J., Zubillaga, J.I.: How large US companies can use Twitter and other social media to gain business value. *MIS Quart Executive* **9**(4), 243–259 (2010)
9. Laroche, M., Habibi, M.R., Richard, M.O.: To be or not to be in social media: how brand loyalty is affected by social media? *Int. J. Inf. Manage.* **33**(1), 76–82 (2013)

10. van Osch, W., Coursaris, C.K.: Organizational social media: a comprehensive framework and research agenda. In: 2013 46th Hawaii International Conference on System Sciences (HICSS), pp. 700–707 (2013)
11. Satti, M.M., Satti, M.M.: Establishing private social media networking platform for socio-political. *IEEE Intell. Syst.* **13**, 126–130 (2013). ISBN 978-1-4799-2569-8
12. Bukhari, I., Wojtalewicz, C., Vorvoreanu, M., Dietz, J.: Social media use for large event management: the application of social media analytic tools for the Super Bowl XLVI. In: Homeland Security (HST), Waltham, MA, pp. 24–29. IEEE (2012)
13. Zhou, L., Wang, T.: Social media: a new vehicle for city marketing in China. *Cities* **37**, 27–32 (2014)
14. Yadav, P.S., Srivastava, P.: A statistical analysis of impact of social networking media on higher education. In: 2013 2nd International Conference on Information Management in the Knowledge Economy (IMKE), pp. 9–13 (2013)
15. Crampton, T. China-social-media-evolution. <http://www.thomascrampton.com/china/china-social-media-evolution/>. Accessed Nov 2014 (2011)
16. Statista. Ranking of the most valuable social media brands worldwide as of 2012 (in billion U.S. dollars) (2012). <http://www.statista.com/statistics/247752/most-valuable-social-media-brands-worldwide/>. Accessed 5 Nov 2014
17. Chiu, C., Ip, C., Silverman, A.: Understanding social media in China (2012). http://www.mckinsey.com/insights/marketing_sales/understanding_social_media_in_china. Accessed 5 Nov 2014
18. Yu, L.L., Asur, S., Huberman, B.A.: Dynamics of Trends and Attention in Chinese Social Media (2013). arXiv preprint [arXiv:1312.0649](https://arxiv.org/abs/1312.0649)
19. O'Reilly, T.: What is Web 2.0: design patterns and business models for the next generation of software. *Commun. Strat.* **65**(1), 17–37 (2007)
20. Kaplan, A.M., Haenlein, M.: Users of the world, unite! the challenges and opportunities of social media. *Bus. Horiz.* **53**(1), 59–68 (2010)
21. Ellison, N.B.: Social network sites: definition, history, and scholarship. *J. Comput. Mediated Commun.* **13**(1), 210–230 (2007)
22. Thomas, C.: Social media in China: why and how (2011). www.thomascrampton.com/china/china-social-media/. Accessed Nov 2014
23. Statista. Social Networks in China (2014). <http://www.statista.com/topics/1170/social-networks-in-china/>. Accessed 1 Nov 2014
24. Moore, J.N., Hopkins, C.D., Raymond, M.A.: Utilization of relationship-oriented social media in the selling process: a comparison of consumer (B2C) and industrial (B2B) salespeople. *J. Internet Commer.* **12**(1), 48–75 (2013)
25. Agichtein, E., Castillo, C., Donato, D., Gionis, A., Mishne, G.: Finding high-quality content in social media. In: Proceedings of the 2008 International Conference on Web Search and Data Mining, pp. 183–194. ACM (2008)
26. Kietzmann, J., Hermkens, K., McCarthy, I., Silvestre, B.: Social media? get serious! understanding the functional building blocks of social media. *Bus. Horiz.* **54**, 241–251 (2011)
27. Schumpeter, J.A.: The theory of economic development: an inquiry into profits, capital, credit, interest, and the business cycle, vol. 55. Transaction Publishers, Piscataway (1934)
28. Laursen, K., Salter, A.: Open for innovation: the role of openness in explaining innovation performance among UK manufacturing firms. *Strateg. Manag. J.* **27**(2), 131–150 (2006)
29. Ståhlbröst, A., Betoni, M., Ebbesson, E., Lund, J., Følstad, A.: Social Media for User Innovation in Living Lab

30. Adetola, A., Li, S., Rieple, A., Níguez, T.-M.: Linking social media, intelligent agents and expert systems for formulating open innovation strategies for software development. In: Paper Presented at the WSEAS Proceedings of the 11th International Conference on E-Activities (2013)
31. Trott, P., Hartmann, D.: Why 'open innovation' is old wine in new bottles. *Int. J. Innov. Manage.* **13**(04), 715–736 (2009)
32. Graupner, S., Bartolini, C., Motahari, H., Erbes, J.: Evolving social media into productivity platforms. In: 2012 Annual SRII Global Conference (SRII), pp. 183–190 (2012)
33. Adam, N.R., Shafiq, B., Staffin, R.: Spatial computing and social media in the context of disaster management. *IEEE Intell. Syst.* **27**(6), 90–96 (2012)
34. Chesbrough, H., Vanhaverbeke, W., West, J. (eds.): *Open innovation: Researching a new paradigm*. Oxford University Press, Oxford (2006)
35. Cooper, J.R.: A multidimensional approach to the adoption of innovation. *Manag. Decis.* **36**(8), 493–502 (1998)
36. Daft, R.L.: *Bureaucratic versus non-bureaucratic structure and the process of innovation and change*. JAI Press, Greenwich (1982)
37. Erdoğan, İ.E., Cicek, M.: The impact of social media marketing on brand loyalty. *Procedia Soc. Behav. Sci.* **58**, 1353–1360 (2012)
38. Johannessen, J.A., Olsen, B., Lumpkin, G.T.: Innovation as newness: what is new, how new, and new to whom? *Eur. J. Innov. Manag.* **4**(1), 20–31 (2001)
39. Mansfield, E.: Size of firm, market structure, and innovation. *Eur. J. Polit. Econ.*, 556–576 (1963)
40. Walker, R.: Innovation type and diffusion: an empirical analysis of local government. *Public Adm.* **84**(2), 311–335 (2006)
41. Busscher, N.: *Social media: their role as marketing*. IBA Bachelor Thesis Conference, University of Twente (2013)