Understanding the adoption of Social media in the Australian Healthcare Sector: A Meta Analytical Approach

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The use and application of social media in the healthcare industry is attracting the attention of the researchers worldwide. The usage and application of social media in health communication has presented a new dimension in healthcare for potentially improving health outcomes. However, there has been widespread critique of its application due to the lack of sufficient information, and grounded with a common myth that social media is limited to social interaction and has not found a beneficial usage of its application in the industry. This paper focuses on identifying the real time benefits and limitations which include the social, ideological, and technological usage of social media in the healthcare industry unlike other industries where-in a widespread application has changed the dynamics. The diverse range of social platform which entails collaborative projects, content communities, social networking sites, virtual games and social worlds have been in use already in the healthcare industry but lacks the wider acknowledgement as deserving. Information Technology acceptance has been widely researched in the extant literature. However, studies focusing on the acceptance and usage of social media from the perspectives of healthcare professionals are sparsely represented. To add to the growing work in this area, we propose a conceptual model appropriate for determining the drivers and barriers of social media usage in the healthcare industry. The study applies unified theory of acceptance and use of technology (UTAUT) model by identifying the existing gaps in the prevalent literature. Some modifications to the extant model were required to fit the purpose of the study. The study shall entail the examination of the drivers and barriers of social media usage of healthcare professionals with some key recommendations for future research. The results of this research will contribute immensely to the limited research available in literature and will have significant implications for practitioners and healthcare professionals in Australia and comparable parts of the world.


1. Introduction

The use and application of social media in the healthcare industry is attracting the attention of the researchers worldwide. This usage and benefits of social media in healthcare has presented a new dimension in health communication in potentially improving health outcomes. However, there has been widespread critique of its useful application due to the lack of sufficient information, and is grounded with a common myth that social media is limited to social interaction and has not found a beneficial usage of its application in the industry.

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The review of the extant literature revealed that there is a considerable dearth of empirical studies on how current social media tools facilitate patient engagement and health communication. In particular, very few studies examined the enablers and barriers of social media adoption within healthcare context. Social web sites such as Patient like me, Hello health and Mayo clinic are currently very popular and drawing interest of physicians and general public for health information dissemination and this require further investigation. Therefore, there is a strong need to construct empirical models about social media acceptance and usage behavior of healthcare professionals. Hence, the current research aims to bridge this gap by proposing a new theoretical model through conceptualisation of drivers and barriers of the of social media usage within the Australian healthcare context.

The use of the social media communication tools such as Facebook, Twitter, YouTube and Medical blog has become increasingly popular among healthcare professionals (Harris, Mueller & Snider 2013; Moorhead et al. 2013; Alghamdi & Moussa 2012). The latest research from Manhattan Research (2012b), shows that U.S. physicians (N=3,015) spend an average of eleven hours per week online for professional purposes only. However, Australian healthcare professionals are considerably lagging behind in this aspect. A recent study by Usher (2011) indicated that only 9.5% (n=935) healthcare professionals use social media for professional reasons. These findings are strikingly opposite to the findings of the USA and European Healthcare Industry (Harris, Mueller & Snider 2013; Usher 2011). Nevertheless, the usages of Facebook and Twitter among other social mediums are slowly attaining popularity among healthcare professionals and healthcare organisations in Australia. Examples of the positive impact of social media in spreading health information can be rendered through various examples. National Aboriginal Community Controlled Health Organisation (NACCHO), Elms Medical Centre; Aboriginal Health and Medical Research Council; and Queensland Health department has been effectively utilising social media channels (e.g. Facebook and Twitter to promote health related issues such as sexual health, smoking cessation and presenting educational and informational posts related to healthcare). Results indicate that their social media based campaigns have been very effective in reaching their target audience (Sweet 2013).

On the contraire, it can be argued that these developments represent significant threats for healthcare professionals and general public. If patient engagement through social media grows to such an extent that his/her focus shifts away from healthcare providers to just collecting arrays of data, both relevant and irrelevant, it may confuse medical help seeking consumers who may not be versed with medical knowledge (Moorhead et al. 2013: Hughes et al. 2009; Cain 2011), and this can lead to asymmetric information between doctors and patients. Extant literature also indicated that individuals and professionals are vulnerable to data security, data tampering, privacy issues and ultimately inefficient communication. Past studies also revealed that regardless of the various benefits of social media applications and technologies, the question of information reliability is a persistent problem (Heidelberger 2011: Cain 2011: Moorhead et al. 2013). Thus, patients are likely to be exposed to erroneous information. Hence, it can be claimed that social media applications in the healthcare industry are informal, unregulated and lacks adequate benchmark and standardised criteria for evaluating health information as the information is of varying quality and lacks uniformity.

Conflicting views stemming from various studies form a very interesting research proposition. Extant literature related to social media in healthcare is relatively thin and presents a wide gap in the availability of relevant studies in relation to the enablers and barriers of acceptance and usage and is noticeable. Considering the contradictory opinion
of various researchers in relation to the usage of social media in the healthcare sector, the study aims to propose a consolidated conceptual model that integrates the drivers and barriers of social media acceptance and usage behaviour of the Australian healthcare professionals. Limited numbers of studies have been conducted in relation to the adoption of social media within the context of Australian healthcare sector (Cadogan 2012: Usher 2011). However, these studies mainly focused on the extent of social media adoption by healthcare organisations and professionals without the attempts being made on identifying the drivers and its causation. Moreover none of these studies explained the phenomenon through a theoretical framework.

The purpose of this current study is twofold. First, we will present empirical information regarding the benefits and pitfalls of the application of social media use in healthcare. The second objective of this research is to extend and modify the unified theory of acceptance and use of technology (UTAUT) model within the Australian healthcare setting to examine the drivers and barriers of social media adoption. In general, large number of studies explained the adoption of technology in healthcare context using technology adoption models such as TPB, TAM, UTAUT and UTAUT2 (Ward et al. 2008). Researchers in different countries have presented valuable information with reference to the application of Social media in healthcare context. While prior research efforts have applied different technology adoption models in explaining information technology (IT) usage behavior of healthcare professionals, to the best of our knowledge, no study has yet theoretically combined technology adoption models to explain social media acceptance and usage behavior of the Australian healthcare professionals. Therefore, perspectives of the Australian healthcare professionals are required to increase knowledge and understanding in the area. Consequentially, this study attempts to address this gap by proposing a distinctive theoretical framework through consolidation of existing technology adoption models and post technology adoption models.

The primary contributions of this study are integration of different technology adoption models to explain long-term use of the diverse social media platforms in the healthcare industry, and a theoretical evaluation of the drivers and barriers that are critical to usage decision. The findings from this study are expected to give both practitioners and academics an increased understanding of social media applications in healthcare. Furthermore, this study will also add to the theoretical underpinnings of a sparse body of prevailing research in this area.

The remainder of the paper is organized as follows. Section 2 discusses the benefits and limitations of Social media usage in healthcare by drawing on relevant literature. Section 3 and Section 4 presents our research model and research hypotheses, followed by a discussion in Section 5. Lastly, conclusions and implications of the study are presented in Section 6.

2. Literature Review

Over the last decade, the progression and frequency of application of social media technology has been dynamic and versatile. Young and Simmons (2005) defined social media technology as an integrated platform of various types of electronic, communication and media technologies. Day to day activities like listening to music, learning for a quiz or sharing a favourite picture have been transformed through the advent and constant development of social forums (Twitter, Facebook, Instagram), highly innovative, advanced networking platforms (Virtual Worlds, Podcasts and instructional documents) and
contemporary content sharing platforms (Wikis, Blogs, Youtube, Diigo, Google Docs). Most recently such platforms of social media have been collectively referred to as Web 2.0.

Most authors and scholars prefer to call the integration of web 2.0 technologies in healthcare as Health 2.0 (Eysenbach 2008). There are many examples of Health 2.0, such as the websites “Patients like me” and “Hello Health” that allow registered users to record and share healthcare information with similar patients and consulting doctors. Social networking is at the core of all social media based healthcare applications and involves a multilateral procedure of connecting people, which allows individuals and organisations to link up and initiate a collaboration between individuals and professionals (Huang & Dunbar 2013). For instance, users can easily observe what their peers are doing through various interactive applications and allow users to gather information or check professional credentials. Having such platforms additionally creates accountability and promotes quality control. Also, dispersion and diffusion of information and applications is inevitable but highly beneficial to the community as a whole (Giustini 2006).

Numerous benefits of using social media for health communication were reported for the general public, patients, and health professionals. A major benefit of social media for health communication is the accessibility and widening access of health information to various population groups, regardless of age, education, race or ethnicity, and locality, compared to traditional communication methods (Chou et al. 2009). Social media facilitates and widens accessibility and reach of health information to different population groups and is not confined by typical demographic and cultural factors (Alghamdi & Moussa 2012: Ketikidis et al. 2012: Lagu et al. 2010).

Scholars have conveyed the idea that social media technology has allowed suitable platforms to be built where patients and doctors can form a mutually beneficial relationship, the former being facilitated by information and consultation while the later benefits from an increased portfolio and elevated goodwill (Gajaria et al. 2011). The actual premises and capacity of medical facilities are limited in resources and experts. Thus acting as a constraining barrier to regular healthcare needs of “all” the population with no boundaries marked (Eysenbach 2008). Also, it is not possible for doctors to spend exclusive time on single patient. Hence the social and medical apps provide a proper platform to allow dialogue exchange (chatting, forums, blogs and such) and digital interaction (Lagu et al. 2010: Chou et al. 2009). Recent studies have suggested that social media apps like Facebook and twitter are popularly used by ample percentage of the population to share their medical experience and gather information on diseases, cures, remedies, medical science or just plain facts (Sweet 2013: Gibbons et al. 2011).

In terms of the negative impact of social media, the most frequent theme addressed by researchers was the lack of quality and reliability of health information. Moen, Smordal and Sem (2009) examined several pitfalls of social media and advocated that current mechanisms of information exchange via social media may create an asymmetric patient-healthcare provider relationship, and healthcare professionals need to play a strong role in the arena of social media health communication. Prevalent literature also showed that the healthcare professionals either lack knowledge of online technologies, or reluctant to use social media due to diverse range of issues such as privacy, ethical and legal consequences. Scholars have argued that regardless of the various benefits of social media applications and technologies, the question of information reliability is a persistent problem. Medically incorrect information can lead to patients following “wrong” instructions and thus causing potential health damage. This can create cascading effect which can
cause the community to distrust in online social applications and service in medical healthcare (Freeman & Chapman 2007: Moorhead et al. 2013).

However not enough empirical evidence has been found in determining whether patients have suffered adversely due to misleading information (Colineau & Paris 2010). Nevertheless, experts asserted that sufficient legal regulations and compliance must be implemented in order to address security and reliance issues, especially focusing on the healthcare sector where misleading information can even lead to person’s death. Information may vary in consistency across different social media healthcare applications, thus resulting in negative and detrimental effects to individuals’ health or even lead to severe complications due to improper medication. Prevalent literature also showed that poor information quality, lack of privacy, fraud and abuse are main causes of distrust and lack of confidence in healthcare related social media sites and applications (Adams 2010: Hughes et al. 2009).

In summary, extent literature related to social media in healthcare primarily focuses on four Major areas: Application and use of social Media, Impact and challenges of social media adoption, Potential of social media in the healthcare sector and the users’ attitude towards social media. However a thorough literature review and a meta-analysis conducted by Moorhead et al. (2013) revealed several gaps; such as:

- Limited theoretical or empirical study in the context of Australian healthcare sector;
- Absence of theoretical models in relation to the causation, drivers and barriers of social media adoption in healthcare;
- Overall impact of social media use in the context of healthcare sector;
- Relationship between social media usage and patient/user satisfaction and the prospect of social media in facilitating the patient-health professional relationships;
- How to monitor the quality and reliability of health communication using social media;
- The risks stemming from online health information sharing and the consequences for confidentiality and privacy;
- Long term impact of social media in the healthcare sector;
- What method can be followed to educate users in order to ensure confidentiality and privacy of personal information;
- How social media can provide support for the general public, patients, and healthcare professionals to enhance their interpersonal communication and overall satisfaction within Australia.

Overall, majority of the studies are somewhat restricted in terms of answering what compel healthcare professionals and organisations to adopt social media technologies or what drives them to use/reject different social media channels? Given the dearth of appropriate theory, we weave together elements of the above social media and technology adoption literature into a comprehensive theoretical model, and intend to use the model to examine the determinants of the two core facets of social media utilization; as suggested by the literature review: (1) Drivers and barriers of acceptance and (2) the outcome of acceptance. The following section formally lays out this explanatory model.
3. Research Model

Limited number of studies addressed the social media acceptance and usage behavior of healthcare professionals and patients. For example, patients’ and health professionals’ use of social media (Antheunis, Tates & Nieboer 2013; Ketikidis et al. 2012), social media adoption in health departments (Harris, Mueller & Snider 2013), and internet use by public to search for health related information (Alghamdi & Moussa 2012). However, none of these studies examined the acceptance and usage behavior of healthcare professionals by applying generic technology adoption models. Absence of specific models in this arena signifies the need for testing prevalent technology adoption models from the perspective of social media applications in healthcare.

The literature shows that researchers have drawn from behavioral intention theories in social sciences and related domains to propose models for investigating an individual’s acceptance and use of information technology (Venkatesh et al. 2003). Some of the widely used theories and frameworks in the area include theory of reasoned action (TRA), theory of planned behavior (TPB), diffusion of innovation, technology acceptance model (TAM), and the combined TAM and TPB model (Ajzen 1991; Venkatesh et al. 2003).

Venkatesh et al. (2003) proposed the unified theory of acceptance and use of technology (UTAUT), which fundamentally integrated prior eight models from the behavioral intention perspectives. UTAUT is one of the essential model for understanding the effectiveness and effect of information system and technology, which is based on eight major behavioural theories: Theory of Reasoned Action (TRA); Technology Acceptance Model (TAM, TAM-2 and C-TAMTPB); Motivational Model (MM); Theory of Planned Behaviour (TPB) and Decomposed TPB; Model of PC Utilization (MPCU); Innovation Diffusion Theory (IDT); and Social Cognitive Theory (SCT).

![UTAUT Diagram](image)

Our study adapts and modifies the UTAUT model to study the drivers, barriers and outcome of social media usage of healthcare professionals. The underlying rationale for selecting the UTAUT model was the wholesomeness of the model. The UTAUT incorporated the elements of eight of the most relevant technology acceptance models. This made it a comprehensive model for the technology adoption in health care (Venkatesh et al. 2003). Tung, Chang & Chou (2008) conducted a study to find a best-fit technology acceptance model in the health care industry. The factors that play a role in the acceptance of IT in healthcare were examined and the findings revealed that compatibility, perceived ease of use, perceived usability, and trust influence the behavioural intention to
use, indicating that UTAUT is an effective model for examining the adoption of technology and information systems in healthcare.

The theoretical constructs of the model is clearly a delineation of social, ideological, and technological platforms which include performance expectancy, effort expectancy, social influence and facilitating conditions which directly or indirectly impact behavioral intentions and usage. Performance expectancy refers to “the degree to which an individual believes that using the system will help him or her to attain gains in job performance” (Venkatesh et al. 2003). Effort expectancy refers to “the degree of ease associated with the use of the system” (Venkatesh et al. 2003). Social influence refers to “the degree to which an individual perceives that important others believe he or she should use the new system” (Venkatesh et al. 2003). Facilitating conditions refers to “the degree to which an individual believes that an organizational and technical infrastructure exists to support use of the system (Venkatesh et al. 2003). UTAUT theory comprises the synthesis of years of research on behaviour psychology consisting influential determinants of intention to use and actual information technology usages.

Despite the popularity of UAUT model in examining user’s technology acceptance and behavioral intentions, criticisms have surfaced to underline the limitations in their use. Bagozzi (2007) quoted “The study of technology adoption/acceptance/rejection is reaching a stage of chaos, and knowledge is becoming increasingly fragmented with little coherent integration”. It can be exemplified that Unified Technology acceptance Model (UTAUT) contains 41 independent variables (Bagozzi 2007) and still arguments can be made that very important variable such as external conditions and personal motives are missing from the model. Furthermore, technology adoption models outwardly mesmerized the researchers in favour of a fluid model; researchers have overlooked an indispensable aspect of technology adoption: “The outcome of technology adoption”. Models such as Expectation Confirmation Model (Bhattacharjee 2001), and IS success model (Delenoe & Mclean 1992) attempted to examine the predictor and outcome of information technology adoption. However, arguments can be made that the included predictors in these models are very generic and difficult to contextualise within a new setting. The absence of a sound theory and method for identifying the drivers, barriers and outcome of social media acceptance behaviour calls for a paradigm shift in the technology adoption research. Therefore this research attempts to address this critical gap by developing an original theoretical framework through consolidation of existing technology adoption models and post technology adoption models. Based on the relevant literature and theoretical models, the Unified Technology adoption model (UTAUT) has been revised with added constructs to represent the proposed research model below.
4. Research Hypotheses

Validity of the drivers chosen for the research has been time tested and has proven results to advice the healthcare departments and professionals globally. Thus the testing of the relationships of these factors in the Australian scenario could prove most effective; not only to understand the drivers, barriers and outcome of social media adoption in Australian healthcare system, but also to understand the reason behind adoption or rejection. Such an intense attempt is likely to have a significant impact on the usefulness and the widespread application of social media in the healthcare industry in Australia and elsewhere globally.

4.1 Performance Expectation

Gajaria et al. (2011) showed that social media provides healthcare professionals a platform to conduct online consultations and facilitate dialogue between patients to patients, and patients to health professionals. Alghamdi and Moussa (2012) and Lagu et al. (2010) also articulated that social media is used effectively by the general public, patients, carers, and health professionals to share their experience on diverse range of health related issues such as Cancer, disease management, exploration and diagnosis. On the basis of these observed studies and its usefulness; the following hypothesis has been proposed:

\textbf{H1:} Performance Expectancy of social media positively affects the acceptance behaviour of healthcare professionals.

4.2 Ease of Use

The importance of perceived ease of use signifies the degree to which an innovation is perceived not to be difficult to understand, learn, or operate (Venktatesh & Davis 2000). Rauniar et al. (2009) indicated that an easy to use web site can enhance the user's experience. In sync with these observations it can be contended that if a social media
page/s is easy to use; healthcare professionals and providers can enhance patient experience through social media sites (Rauniar et al. 2013). Based on relevant literature and UTAUT, we propose the following hypothesis:

**H2:** Effort Expectancy of social media sites positively affects the acceptance behaviour of healthcare professionals.

### 4.3 Supporting Conditions

It can be claimed that social media sites provide various tools and applications that can enhance the services to users as they share and exchange information in healthcare sector. Ketikidis et al. (2012) showed that such characteristics compel users to develop a favourable attitude towards social media. Similarly in healthcare domain, Kaplan and Shaw (2004) found significant positive relationship between facilitating conditions and technology use. In agreement with past studies the following hypothesis has been formulated.

**H3:** Supporting conditions positively influence the acceptance behaviour of healthcare professionals.

### 4.4 Social Support

The construct contains a notion that an individual’s behaviour is triggered by the way in which one believes others’ will view him/her as a result of having used social media for health communication. Social media are popular platforms for individuals to interact with each other and to support their online peers. Individuals who use social media can support their friends by their knowledge and experiences. These supports can be emotional or informational in an online context (Liang et al. 2011). Research shows that health outcomes can be improved by the social networking sites as these sites offer social support that is unavailable in the traditional form of health care. Individuals who access social applications for health purpose are helped by the comfort that they experience in finding social support; they expand their knowledge by finding answers from other individuals, and thus feel empowered and more personally involved in the management of their health (Gibbons et al. 2011). The effect of social influence on intention to use technology has been shown to be significant in several previous acceptance studies (Chang et al. 2007; Venkatesh et al. 2003). Based on the relevant literature and past studies we propose the following hypothesis:

**H4:** Social influence positively affects the acceptance behaviour of healthcare professionals.

### 4.5 Information Quality

The information quality dimension has been investigated by many IS researchers (DeLone & McLean 1992). Venkatesh and Davis (2003) pointed out in relevant studies on Technology Acceptance Model (TAM) that information quality positively affects perceived usefulness, in other words if the information quality of a website or social media page is good, the output knowledge would be useful. Based on the relevant literature and past studies, we propose the following hypothesis:

**H5:** Information quality positively affects the acceptance behaviour of healthcare professionals.
4.6 External Conditions

In healthcare organizations; the adoption of innovation by an individual external to the organization impacts on the adoption of others' within the organisation. External environment of an organization can circulate greater awareness for community's need and thus can initiate the technological innovations that can be better suited for their customers (Nystrom, Ramamurthy & Wilson 2002). To examine the general technological innovation, the TOE model was shaped by Tornatzky and Fleischer (1990). The authors created the Technology, Organization and Environment model to identify these three factors that influences and evaluate the readiness of an organisation in adopting innovation. Grounded partly on the TOE framework and the contribution of Kurnia et al. (2009) and the limitations of UTAUT framework in examining the effect of external conditions the following hypothesis has been proposed:

H6: External conditions positively influence healthcare professionals’ acceptance of social media technologies.

4.7 Adoption, Confirmation, Satisfaction and Recurring Usage

Recker (2010) showed that confirmation of benefits positively affect satisfaction. Hung, Chang and Hwang (2011) in a study of satisfaction in the mobile commerce context showed that satisfaction is positively influenced by confirmation. According to Bhattacherjee (2001) confirmation of benefits of a certain system or application leads to satisfaction, and satisfaction leads to continuance intentions. In sync with the Expectation and confirmation model by Bhattacherjee (2001), the following propositions can be drawn:

H7: Adoption of Social media is positively related to confirmation of benefits by healthcare professionals.
H8: Confirmation of benefits positively impacts the user satisfaction.
H9: User Satisfaction is positively related to repeat usage.

4.8 Perceived Threats

According to Moorhead et al. (2013), “the potential violation of ethical standards, patient privacy, confidentiality, and professional codes of practice, along with the falsification of information, are the most common determinants of individual and institutional fear against the use of social media in medicine and health care.” Grajales et al. (2014) further added that there are diverging philosophical perspectives by professional bodies both supporting and condoning the use of social media. These contradictions are further perplexed by regional (e.g., health authority) and institutional (e.g., hospital) variations in policies. Meta-analysis conducted by Moorhead et al. (2013) showed that the fear of the unknown is major barrier against the adoption of social media in clinical settings. This “unknown” is likely due to the conservative nature of health care institutions and practitioners, a lack of understanding of the true risks and liabilities that could result, as well as the question of whose recommendations and best practices should be followed. For example, Grajales et al. (2014) cited that the Canadian Medical Association advocates the conservative use of social media while the British Medical Association and American Medical Association condemn it.

Antheunis, Tates and Nieboer (2013) investigated patients’ and health professionals’ barriers of health-related Social media use. They found varied barriers for patients and
professionals. The main concern for patients was their privacy and the unreliability of the information on social media. The main barriers for the health professionals were inefficiency and lack of skills to use social media appropriately. Therefore, if the healthcare organizations decide to incorporate social media in their professional practice; it is likely to meet with skepticism and significant complexities can occur in post adoption environment. It is reasonable to assume that usage decision of social media by healthcare professionals, patients and healthcare organizations are based on perceived threats and complexities such as Trust, Security, Reliability and Quality. Drawing on the work of Moorhead et al. (2013) and Antheunis, Tates and Nieboer (2013); we propose the following hypotheses:

\[ H10: \text{Perceived threats negatively influence perceived performance.} \]
\[ H11: \text{Perceived threats negatively influence adoption decision.} \]
\[ H12: \text{Perceived threats negatively influence user satisfaction.} \]
\[ H13: \text{Perceived threats negatively influence recurring usage decision.} \]

5. Discussion

The proposed research framework aims to carry out an empirical study to explain the drivers and barriers of social media acceptance embarked on the social, ideological, and technological platforms and its usage within the Australian Healthcare sector. The model presented for this study has been derived through a wide range critical evaluation of technology acceptance theories and literature related to social media applications in healthcare. The theories that were examined and considered for this research comprised of Information System Success Model, Technology acceptance model, revised technology acceptance model, Unified technology acceptance model (UTAUT), Technology, Organisation and Environment framework (TOE), Expectation and Confirmation Model (ECM) and literature related to the social media applications in healthcare.

The drivers formulated in this research have been tested in various studies worldwide in all types of technological environments. In a recent review of 93 studies on adoption of E-health, Li et al. (2013) found that the results supported the models in predicting the adoption behaviour in the health care context. Ruxwana, Herselman and Conradie (2010) also successfully tested the applicability of the UTAUT model. Previous research in the healthcare sector confirmed that performance expectancy was a strong predictor of intention use information systems (Chang et al., 2007). Effort expectancy was shown to positively impact behavioral intentions of professionals in the healthcare sector (Aggelidis & Chatzoglou 2009). Similarly, Kijsanayotin, Pannarunothai and Speedie (2009) found positive relationship between social influence and behavioral intentions in healthcare setting. The organizational facilitating conditions are of importance for healthcare professionals’ behavioral intentions towards technology (Kaplan & Shaw 2004). Some researchers also have demonstrated that perceived threats and external factors have an important influence on technology users’ behavioral intention and usage (Antheunis, Tates & Nieboer 2013: Chou et al. 2009).

As mentioned earlier in the study, there is a dearth of research in relation to the drivers and barriers of social media adoption within the healthcare sector. Majority of the technology acceptance models primarily focuses on acceptance behaviour of technology. The inability of these models to predict continuance behaviour has provided with another stream of research known as continuance or post adoption behaviour (Bhattacherjee 2001). Thus to predict the outcome of social media adoption; the proposed conceptual model in this paper
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integrates the Expectation Confirmation Model (Bhattacherjee 2001) with Unified Technology Acceptance Model (UTAUT). Based on the Expectation Confirmation Model (ECM) the study predicts that confirmation of benefits and satisfactions are the main drivers of continuance behaviour of healthcare professionals and users.

The proposed theoretical framework conveys wider implications beyond those of the individual variables cited above. The proposed conceptual model can be a positive addition to the expansive literature on social media, social networking and technology adoption in the healthcare sector. Furthermore, the proposed conceptual model shed light into a relatively unfamiliar territory by combing multiple technology adoption models and attempts to explain what drives healthcare professionals' and general users' acceptance and usage of social media? Thus, the testing of the relationships of these enablers in the Australian scenario could prove very effective; not only to understand the drivers and barriers of social media acceptance and usage; but will also enable us to understand the outcome of adoption. This is likely to have significant implications in terms of social media usage within the healthcare industry.

6. Conclusion and Implications

To sum up, this research agenda has synthesised the existing theories that have been proposed and tested in the main stream technology adoption literature in recent times. Based on the Unified Technology acceptance model (Venkatesh et al. 2003); the proposed study has come up with a generic social media acceptance and usage framework model. Performance expectancy, effort expectancy, information quality, social influence, perceived threats, external conditions and supporting conditions were identified as important variables within the conceptual and empirical studies on social media acceptance in the healthcare setting. The variables included in the conceptual framework aim to provide a theoretical underpinning in relation to the causation, drivers, barriers, and outcome of social media usage in the healthcare sector. These factors are yet to be contextualised and tested within the Australian healthcare system. The extant literature evidence has been discussed in the context of social media adoption and its implication in healthcare.

Research efforts attempting to study the acceptance and usage behavior of social media by healthcare professionals is relevant, topical and timely. The possible outcome of this research will broaden and deepen our understanding of the complexities associated with adoption and usage of the social media in the Australian healthcare sector. The research will have significant implications for advancement of theory as well as practice. In theoretical terms this study will shed lights on the ever expanding nature of technology adoption within Australian healthcare setting with specific reference to the application and usage of social media. It is expected that the results of this research will have implications for practitioners in the research setting in Australia and in comparable parts of the world.

First, this study would enable healthcare professionals to understand the true impact of social Media, if any. Second, the existence and growth of social media usage are also likely to affect the patient–physician relationship, including a better understanding of health information among patients, active patient engagement and a positive patient response to health challenges. Third, the study will also contribute to the existing literature on social media and technology adoption in general. Although the context of the study is set to be in Australia, it may be useful for academics and social media users in general to understand the true implications of social media as a health communication tool. Conversely, the framework will be applicable for the healthcare sector of other countries. Overall, our study
helps foster understanding of the factors that influence the acceptance and usage of social media.

In terms of limitations, it must be noted that a better understanding of the barriers of using social media for health communication is required. This is still a new phenomenon and the impact of social media usage is yet to be tested within different healthcare settings. In addition, there is a very limited body prior research directing our exploration of the drivers and barriers of social media usage. While the prevalent literature reveals that the Australian healthcare professionals are utilising social media technologies to a small degree, there is still a pronounced need to conduct further research to identify the effectiveness of social media in the Australian healthcare sector. Issues in relation to the negative impact of social media adoption need to be addressed in future research. Future research may also consider adding personal and organizational factors such as demographics, habit, personal innovativeness, self-efficacy, training, and computer anxiety to further enhance the strength of the conceptual model. This study would perhaps be an initial step in addressing the enablers and barriers of social media technologies in a wider context. Findings from this study may help guide future research and assist Australian health professionals to develop deeper understanding of social media’s role in health communication.

References


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