



## **The Value Proposition of Adopting Social Media Strategy in Iraqi Hospitals**

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### **Abstract**

This study examines the factors that influence social media adoption among Iraqi healthcare organizations. With the advent of social media and the possible outcomes that can be gained from such integration in businesses have triggered much attention to be further investigated. Furthermore, this study also examines the impact of social media adoption in the healthcare context. This study uses an integrated model in order to examine the impact of perceived benefits, interactivity, privacy, and cost effectiveness on social media adoption in healthcare organizations and subsequently the impact on the healthcare performance. Data was collected and the statistical analysis was carried out through questionnaire from 144 healthcare professionals in Iraq. SmartPLS V3.0 was used in order to interpret and explain the relations among the selected variables and also test the hypotheses. Interesting findings of the study show that social media adoption has very strong positive impact on the healthcare organizational performance. Likewise, factors like perceived benefits, interactivity, privacy were found with significant impact on social media adoption in healthcare context. The empirical findings of this study are very encouraging for many healthcare professionals who plan to integrate social media into their current system.

**Keywords:** Perceived benefits, Social Media, Healthcare industry, Healthcare performance.

### **Introduction**

Social media has dominated most industries at different levels and has shown significant contribution to most businesses. Moreover, social media allows more effective communications and enables more effective marketing, (Derham et al., 2011). Business companies nowadays can more effectively advertise and market and sell their products with use of social media at cheaper cost and faster communication, Bonsón and Ratkai (2013). Valid evidences from the literature have shown that social media can be such useful tools to business and business operations as it can be at minimal operational cost, Sarosa (2012) and Wong (2012), (Derham et al., 2011). Prior studies have considered the factors influence the usage of social media and also the type of social media, (Akar and Topcu, 2011), (Bonsón and Ratkai, 2013; Sarosa, 2012; Wong, 2012). This article focuses on those dimensions combined along with the impact of social media on healthcare organizational performance. Furthermore, this study has considered the healthcare as population of this study as they contribute to the local economic growth in Iraq. This study is mainly based on the model of Diffusion of Innovation (DOI) theory. The selected theory DOI has an important role in the technological adoption context. Hence, this study examines the attribute of DOI in the context of social media adoption at healthcare

level. Attributes were selected based on critical review of relevant literatures, namely: perceived benefits, interactivity, privacy, and cost effectiveness.

## **Literature Review and Theoretical Framework**

### **Integration of Social Media**

The web technologies have advanced the way people communicate and interact with others. Social media has increasingly become an important tool at personal and organizational level, (Bhanot, 2012). The literature has contributed to the area of social media adoption, but there still gap in the area of adoption process and the impact of adoption on healthcare performance context, (Beloff and Pandya, 2010; Handayani and Lisdianingrum, 2012). Social media has become the backbone of many businesses, especially in the marketing, communication, and advertising. Therefore, it's of the utmost importance to be utilized and used in such context like healthcare.

### **Perceived Benefits**

In many related studies the term perceived benefits found as the degree to which the healthcare organizations who are adopting the new technology is better than other alternatives. Perceived benefits that allows the company to overcome any industrial competition and therefore results in competitive advantage, (Maduku et al., 2016). Rogers, (1995), has also defined the perceived benefits as the degree to which the new innovation will overtake the current options and trends. Many studies have shown the significant impact that relative advantage has on innovations and is positively associated in the adoption process. Therefore, the following hypothesis was formulated in order to explain the potential impact of perceived benefits on social media adoption.

*H1: Perceived benefits has a Positive Relationship with SM Adoption.*

### **Interactivity**

Interactivity in this study is defined as the interaction features of the new platforms, and to what extent it support the users in interacting with those platforms with system functionalities (Kim, et al. 2010) such advancements that can be integrated into those systems will with no doubt attract the consumers and further build trust of social media platforms. The interactive nature of those platforms can be seen in the consumer interaction and attachment into those tools. The interactivity in design will enable consumers enjoy using these platforms as web platforms and applications. Thus, the interactivity is very important element to be considered to enable such an interactive features that provide more convenience. Interactivity in social media platforms can indeed reduce the unnecessary repetitions of procedures and maintain consumer's retention. Therefore, the following hypothesis was formulated in order to explain the potential impact of interactivity on social media adoption.

*H2: Interactivity has a Positive Relationship with SM Adoption.*

### **Privacy**

Privacy is plays a vital role in user's decision to use or not to use the new social media platforms. Privacy is described as the state of which the consumer feels protected or safe from risks. Hence, privacy in this study comprises of the following dimensions reliability and safety. Most consumers concerns with their safety and security when they carry out some transactions. Therefore, users must feel secured and have enough degree of privacy on the social media platforms in order to accept and interact, (Dash et al. 2014). Privacy is without doubt associated with initiatives provided by the organizations and most services for the consumers to feel the reliability of those platforms then only they can accept and use in their daily interactions. Nevertheless, in social media platforms there are standards which should be considered when further advancing the privacy features of those platforms, (Alalak et al, 2010). Trust of the consumers can only by obtained and that can be gained from the reliability of those platforms and the others' recommendations based on their experiences. Consumers concerned with their data and private information will be shared with others or tampered by others while they are on these platforms. Thus, privacy plays an important role in such technologies where information must be protected and well controlled. Hence, the following hypothesis was formulated to understand the role of privacy in the social media to adoption. Therefore, the following hypothesis was formulated in order to explain the potential impact of privacy on social media adoption.

*H3: Privacy has a Positive Relationship with SM Adoption.*

### Cost Effectiveness

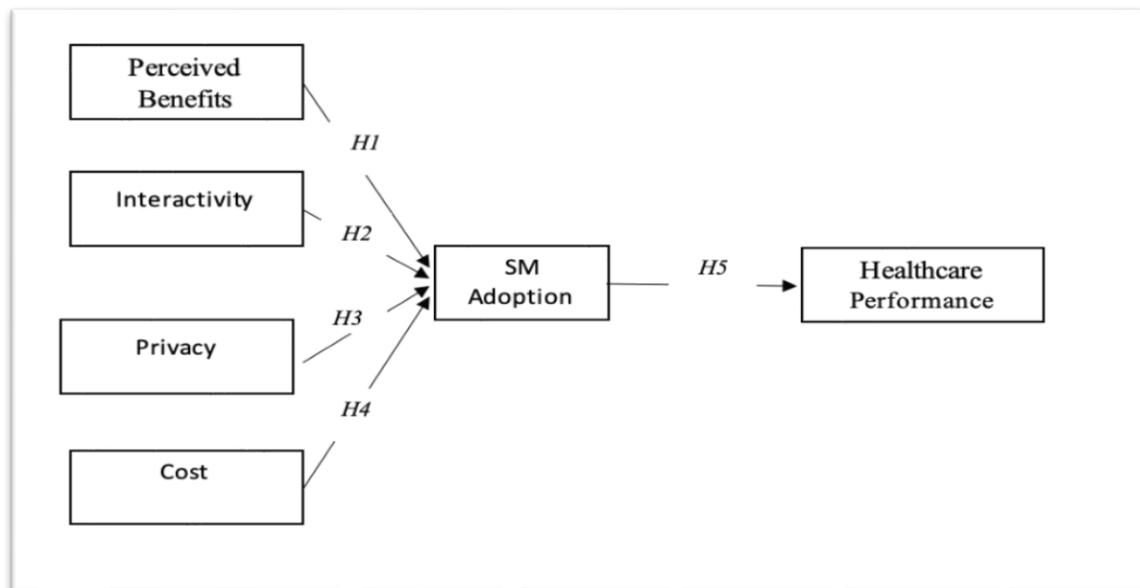
Cost effectiveness has been defined and highlighted in number of studies, (Ernst and Young, 2001). The role of cost effectiveness can clearly be seen with its direct impact on the adoption process. Most business companies has to understand the cost containment of the new technology or any other innovation that might be brought to an organization. The factor should be well addressed and explained while adopting any innovation (Chong and Chan, 2012). The new integration and adoption of social media should bring such cost containment to the organization. SM with no doubt is an excellent fit in the healthcare context as its low cost, faster communication and effective interactions. Therefore, the following hypothesis was formulated in order to explain the potential impact of cost effectiveness on social media adoption.

**H4:** *Cost Effectiveness has a Positive Relationship with SM Adoption.*

### Social Media and Organizational Performance

Despite the numerous benefits that social media brings to an organization, research and studies related to social media adoption yet to be further advanced. Social media adoption research needs to focus on the benefits to the business context and how it can improve their performance, (Lovejoy and Saxton, 2012; Shahizan et al., 2012). The main objective of this study is to investigate the impact of social media on the organizational performance, in all possible aspects, namely operations, marketing, communications, and interactions. In respect with benefits and actual benefits there are number of theories that highlight the impact of such innovation to the business industry. Therefore, the study considers the role of social media in healthcare context. Thus, the following hypothesis was formulated to examine the role of social media adoption in healthcare context.

**H5:** *Social Media Adoption Positively Impact on Healthcare Performance.*



**Figure 1. Theoretical Model of SM Adoption**

### Methodology

#### Sampling

The targeted population of this study are healthcare organizations in Iraq who has used social media tools in their business activities. The selected healthcare organizations were well profiled and based on their number of employees and revenues. This study targeted population who have used social media applications and tools for the last one year with total respondents of 144 healthcare professionals. The survey was carried out online using google forms in order to cover and obtain much possible of responses form the targeted respondents. The survey was held over three months in a row. However, invitations were given twice during the period of those three months in order to obtain sufficient number of responses, (Soper, D. 2016). The study targeted 237 at the first attempt, however with data cleaning and filtering the researchers were able to obtain 144 which were valid and usable to fulfil the purpose of the study. The

data validity and reliability were applied and achieved in this study. Proper five point scaling Likert was applied to the questionnaire so that the respondents can be able to answer to the different subjects provided. The respondents demographics were analyzed and reported in table 1 below. The table shows the number of employees, different industry sectors, company location, level of social media, year that social media has been used in those companies, budget allocated and so on. The targeted audience were namely: head of marketing, social media team, IT professionals, healthcare directors of the healthcare organizations.. The survey was held over four months in a row. However, invitations were given twice during the period of those three months in order to obtain sufficient number of responses, (Soper, D. 2016).The questionnaire was distributed to understand the current usage and purpose of social media in those organizations. The questionnaires were developed based on the selected factors namely: perceived benefits, interactivity, privacy, cost effectiveness, and finally the impact of social media on the organizational performance. The study targeted 230 healthcare professionals at the first attempt, however with data cleaning and filtering the researchers were able to obtain 144 which were valid and usable to fulfil the purpose of the study. The data validity and reliability were applied and achieved in this study. The characteristics of the targeted organizations were well profiled and explained as shown in table 1 below.

### Measurement Model

This study uses the Partial Least Square (PLS) technique to analyse data by using SmartPLS 3.0 software for validating measurements and testing the hypothesis. The evaluation of the measurement model is based on the assessment of internal consistency (composite reliability), indicator reliability (outer loadings), convergent validity (average variance extracted (AVE)) and discriminant validity, (Hair et al., 2010). In order to retain an item in the measurement model, it must have significant outer loadings. The indicator outer loadings should be higher than 0.708. The measurement models of the study and the factor loadings (outer loadings) of the constructs were acceptable as showing

**Table 1. Organization's Characteristics**

<i>Construct</i>	<i>Characteristics</i>	<i>Frequency</i>	<i>Percent</i>
<i>Employees</i>	Below 200	33	22.9
	300-350	52	36.1
	350-400	59	41.0
<i>Type of Organization</i>	Public	31	21.5
	Private	31	21.5
	Clinic	19	13.2
	Dental Clinic	43	29.9
	General Healthcare Centers	2	1.4
	Healthcare operators	16	11.1
	Vaccination Centers	2	1.4
<i>Organization's location</i>	Baghdad	75	52.1
	Nineveh	28	19.4
	Erbil	16	11.1
	Sulaymaniyah	10	6.9
	Dohuk	10	6.9
	Basra	3	2.1
	Babil	2	1.4
<i>Organization's level of use of SM</i>	Minimal	36	25.
	Basic	58	40.3
	Moderate	34	23.6
	Extensive	16	11.1
<i>SM platforms used</i>	LinkedIn	57	12.8
	Facebook	95	21.3
	Twitter	52	11.7
	Instagram	83	18.6
	YouTube	40	9
	Google+	28	6.3
	Pinterest	2	0.4
	iTunes or Podcast	1	0.2
	Blogs	8	1.8
	WhatsApp	80	17.9
	<i>Number of years been using SM</i>	Less than a year	24
1-2 years		61	42.4
3-4 years		31	21.5
More than 5 years		28	19.4
<i>Use as marketing tool</i>	Very little	5	3.5
	Little	26	18.1
	Quite a lot	24	16.7
	Extensive	89	61.8
<i>Hours spent on SM per day</i>	Less than 5 hours	65	45.1
	6-10 hours	49	34
	11-15 hours	13	9
	Above 16 hours	17	11.8
<i>Budget allocated</i>	0-20%	112	77.8
	21-30%	15	10.4
	31-40%	14	9.7
	More than 40%	3	2.1

in table 2 below. In this study, constructs such as perceived benefits, interactivity, privacy, cost effectiveness were validated and considered reliable as per the results demonstrated. The values of composite reliability and AVE to test the reliability and validity of the constructs are reported in Table 2. Results of the study revealed that the values of the composite reliability are 0.6 and AVE is greater than 0.5 for all the constructs, thus construct reliability and convergent validity is achieved. The next evaluation criterion for reflective models is to check for discriminant validity. The results of Fornell-Larcker criterion showed that the square root of AVE for the constructs is greater than other inter-constructs' correlation value. Therefore, discriminant validity is achieved as shown in table 3 below.

**Table 2. Reliability and Validity of the Structural Model**

<i>Constructs</i>	<i>Item</i>	<i>Loading</i>	<i>AVE</i>	<i>Cronbach's alpha</i>	<i>Composite Reliability</i>
<b>Perceived Benefits (PB)</b>	PB1	0.895	0.8023	0.884	0.9241
	PB2	0.867			
	PB3	0.870			
	PB4	0.811			
<b>Interactivity (Interac)</b>	Interac1	0.789	0.8169	0.870	0.9304
	Interac2	0.820			
	Interac3	0.854			
	Interac4	0.816			
	Interac5	0.775			
<b>Privacy (P)</b>	P1	0.845	0.7424	0.854	0.8963
	P2	0.885			
	P3	0.771			
	P4	0.834			
<b>Cost Effectiveness (CE)</b>	CE1	0.791	0.7276	0.868	0.9552
	CE2	0.858			
	CE3	0.863			
<b>Social Media Adoption (Adop)</b>	Adop1	0.874	0.8211	0.825	0.8926
	Adop2	0.823			
	Adop3	0.779			
<b>Entrepreneurial Performance (EP)</b>	EP1	0.888	0.7981	0.909	0.8877
	EP2	0.907			
	EP3	0.871			
	EP4	0.880			

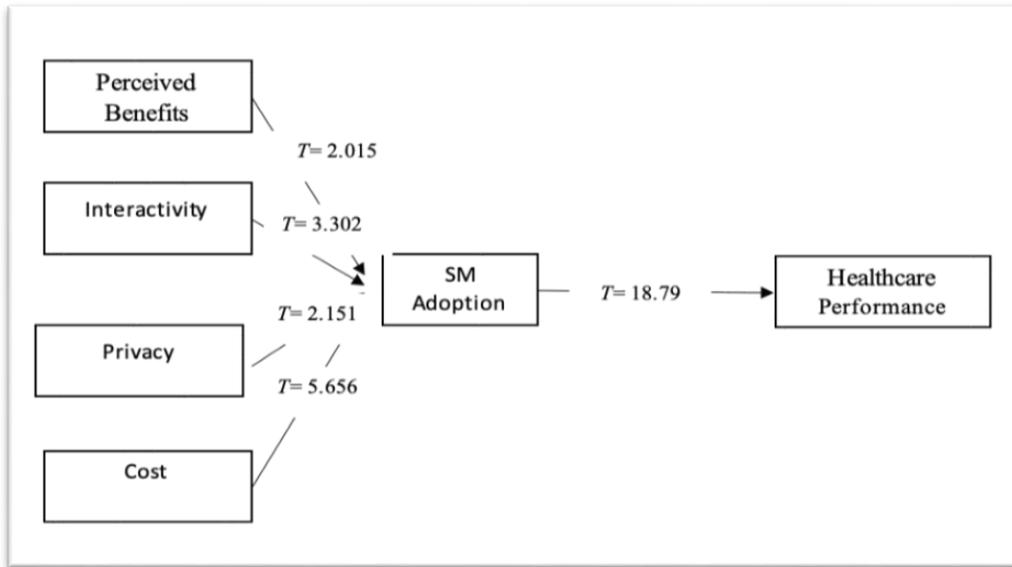
**Table 3. Discriminant validity by Fornell-Larcker Criterion Matrix**

	<b>PB</b>	<b>SM Adop</b>	<b>Intera</b>	<b>P</b>	<b>CE</b>	<b>EP</b>
<b>PB</b>	<b>0.808</b>					
<b>SM Adop</b>	0.743	<b>0.820</b>				
<b>Intera</b>	0.527	0.652	<b>0.811</b>			
<b>P</b>	0.148	0.134	0.083	<b>0.902</b>		
<b>CE</b>	0.580	0.737	0.469	0.065	<b>0.887</b>	
<b>EP</b>	0.339	0.464	0.321	0.085	0.271	<b>0.861</b>

**Table 4. R<sup>2</sup> and Significance level**

<i>Construct</i>	<i>Composite Reliability</i>	<i>R<sup>2</sup></i>	<i>t-value</i>	<i>Significance Level</i>	<i>Result</i>
<i>Perceived Benefits</i>	0.9241	2.015	***		Supported
<i>Interactivity</i>	0.9304	3.302	***		Supported
<i>Privacy</i>	0.8963	2.151	***		Supported
<i>Cost Effectiveness</i>	0.9552	5.656	***		Supported
<i>Healthcare Performance</i>	0.8877	18.79	***		Supported

Note: \*\*\*p<0.01 (W2.58)



**Figure 2. T-value and Significance Level**

The main criteria to assess the structural models are the R<sup>2</sup> of endogenous latent values. R<sup>2</sup> values of 0.67, 0.33 or 0.19 for endogenous latent variables in the inner path model were described as substantial, moderate or weak by Chin (1998). This study shows the R<sup>2</sup> value for the endogenous latent variables Facebook usage was 0.43 and non-financial performance was 0.44, which is considered as moderate. The R<sup>2</sup> for Financial performance is 0.19 which is considered weak. Another important criterion to assess structural model is the estimates of path coefficients. The estimated values for path relationships in the structural model should be evaluated in terms of sign and magnitude. The study results showed that except for the relationship between Trust and Facebook usage (0.068) which is weak, other relationships are strong. Therefore, in order to test the significance of the hypothesized relationship, bootstrapping was applied which provides the t-value that indicates whether the corresponding path coefficient is significantly different from zero (Hair et al., 2006).

**Discussion**

Cost effectiveness has shown a significant impact on social media adoption among healthcare organizations. Moreover, interactivity has positive relationship on the social media adoption. Which means the more interactive platforms the higher adoption level of social media in healthcare context. Interactivity is an important element to be designed and integrated into social media tools. Another significant fact is that privacy seemed to play a vital role towards the adoption of social media platforms in the healthcare context. Based on the finding’s privacy can with no

doubt motivate the healthcare organizations to adopt the social media platforms and integrate them into their business operations, marketing, and communications. From organizational healthcare's point of view social media platforms have to be well maintained and controlled. Healthcare organization's concern is with their private information and data on web and might be misused or tampered with others. Nevertheless, the study has supported the integrated factors namely, perceived benefits, interactivity, privacy, and cost effectiveness which were integrated to the DOI model. The significant findings of this study show that all relationships were supported.

### **Empirical Implications and Research Limitations**

With the emerge of social media platforms, most healthcare organizations seem to have a vital challenge in motivating their staff to adopt those platforms. Due to the fact that staff play the role in the organizational technological advancement if they tend to accept such technology like social media platforms. It's at utmost importance that the organizations look into the factors and the performance outcomes while adopting social media tools. The study has provided grounded framework which can be considered in many different healthcare organizations. With the given risky nature of such technology, cost effectiveness has shown significantly important role for the healthcare organizations to adopt social media platforms. Another interesting finding is that the interactivity has also a vital role to the willingness of healthcare organizations to adopt as they expect a high-end platform in which they can interact independently. Interactivity gives such excitement to the healthcare organizations and advance their performance, with well enabled features and a very productive and straight forward in multimedia enabled platforms. This study has a significant contributed and provided guidelines for most healthcare professionals who are facing misleading information on the adoption of social media. Few limitations to this study, namely the data collected were at one point which might differ or change over time due to different situations, followed by the respondents we web based users. Thus, its highly recommend extending the study to no web users to have their perspectives in this regard. Last but not the least, the study was done and limited to Iraqi healthcare organizations which cannot be generalized to other regions.

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