# Journal of International Education in Business

Social Media Technology Management in College of Technology in Oman: An Empirical Analysis
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**Social Media Technology Management in College of Technology in Oman: An Empirical Analysis**

**Abstract**
**Purpose -** This paper examines the impact of the constructs - utilitarian, hedonic, and social value on the perceptions of the full time instructors related to their social media technology management for learning and teaching practices at workplace.

**Design/methodology/approach -** A survey is used to gather the data from 180 instructors (full time) working at one of the colleges owned by the ministry of manpower, Oman. This paper uses reliability analysis to determine cronbach's α and analysis of variance for the empirical investigation of instructors' perceptions on social media technology management.

**Findings –** The analysis shows ninety eight per cent of the instructors use social media technologies at their workplace. Social influence is found more dominating than utilitarian and hedonic constructs to impact on instructors' intention for social media technologies use. Findings also claim that higher the use of social media technology at workplace stronger the influence on learning and teaching practices of higher education instructors.

**Practical implications** - The findings of this study can be used as the recommendations for all the faculty members to use social media technologies for their educational, learning and teaching practices. The administration can develop policies to motivate instructors to manage such technologies for professional and personal development in order to enhance learning and teaching environment at workplace.

**Originality/value -** This study perhaps the leading attempt to use utilitarian, hedonic and social value perceptions of the instructors to investigate the management of social media technologies in an academic culture and settings of the developing country in the Middle East (Oman).

**Keywords -** Social media technology, Management, Higher education, Hedonic, Utilitarian, Social value.

**Paper type -** Research paper

## 1. Introduction

The expansion of a web 2.0 offers various social networking platforms for exchanging ideas, contents, and information via digital text, photos or videos. Over two billion internet users are now active on social networking platforms with increasing number of daily new active users worldwide (Statista.com, 2016). Facebook, WhatsApp, Instagram, YouTube and Google+ are some most popular examples of web 2.0 internet-based application (Statista.com, 2016). Adoption of these platforms depends upon individuals' priority and perception. People adopt these technologies for both personal and work related interests (Brooks, 2015). Various organizations whether academics institutions, banks, health care or insurance motivate their employees to use network-based platforms in order to exchange work related information, develop connections with their clients and/or co-workers, share and promote ideas and resources, improve knowledge, and make connections for recruitment purposes (Behringer and Sassenberg, 2015; Zhang et al., 2015; Cao et al., 2012; Skeels and Grudin, 2009; Yardi et al., 2009; DiMicco et al., 2008). Kelly Global Workforce Index (KGWI) conducted a survey in over 30 countries for 230,000 participants. Survey results showed that "more than a third (thirty four percent) of workers globally adopts social media in their job and career decisions." According to the survey, the countries of Asia-Pacific (APAC) region has shown the most intensive use of social media for career building purposes led by China with seventy percent, India with sixty four percent, Thailand with sixty percent and Indonesia with fifty seven percent (Kelly Services, 2014).

Several educational practitioners and researchers established the fact that social media empowered academia users (teachers and students) with innovative and dynamic interaction for collaborative

knowledge development. They also believe and support socio-constructivist model as an essential pedagogical tool for the learners (Lytras et al., 2014; Liu, 2010; Barbour and Plough, 2009; Drexler et al., 2008; Dawson, 2006).Therefore, several academic institutions are now employing and promoting online educational model(s) which are inspired by social networking platforms. One of such known models is Massive Open Online Course (MOOC), adopted by many private and public academic institutions to facilitate their students and instructors for educational purposes. MOOC provides free online contents and allows to create user networks, communicate with others (students or educators) online, complete activities in groups and many other academic activities (Allison et al., 2012). It is also important to state that MOOC is not developed for every category of student or institution because of its socializing limitations (Mackness et al., 2013; Hyman, 2012).

There are significant studies which have been investigating the role of social networking tools, social media applications, and e-Learning websites in higher education for past several years. Those studies found that social networking platforms (e.g. Facebook, YouTube, Google+) add a great value in education as a significant informal learning tool for the students (Sharma et al., 2016; Sobaih et al., 2016; Al-Aufi and Fulton 2015, Macpherson et al., 2005) for example, these platforms allow students to complete their course activities by taking help of online available contents, freely discuss course topics with their instructors outside of the classroom, and develop more connections with the scholars outside of their home institutions.

To the best of our social media technology adoption literature discovery, we found that the majority of studies were done in an advanced academic environment in Europe and North America in direction of understanding the perspectives of the students and faculty (Milosevic, 2015; Decman, 2015; Dyson et al., 2015; Sanchez et al., 2014; Allison et al., 2012; Chen and Bryer, 2012; Hung and Yuen, 2010; Wheeler et al., 2008). However, the emphasis of those studies was typically on the perceptions of the students (as participants) rather than on faculty for social media adoption in academic activities. We believe that the perceptions of the instructors (faculty) for social media adoption in education are equally important. Unfortunately, there has been inadequate exploration and examination of the potential studies to examine the perceptions and tendency of higher education instructors for the use of SMTs in learning and teaching practices. However, the existing literature has shown that only a few studies (Sobaih et al., 2016; Al-Aufi and Fulton 2015; Saleem et al., 2015; Abouchedid and Eid, 2004) addressed the viewpoint of the faculty members (as participants) on the management of social media technologies for educational, learning and teaching purposes, especially in the academia cultures and settings of the developing countries in the Middle East. Therefore, the aim of this study is to discover potential future trends by investigating the use of SMT and the perceptions of the instructors working (full-time) at publically owned higher education technical college in one of the Middle East countries (Oman).

It is hoped that the following guiding research questions would help to attain the objectives of this study:

RQ1. Do instructors use social media technology (SMT) at their workplace?

RQ2. What factors influence instructors' intention to use SMT for educational purposes?

RQ3. Does SMT use at workplace influence instructors' learning and teaching practices?

In this present study we analyzed the constructs recommended by proven approach (Hedonic and Utilitarian values) employed in previous studies (Gu et al., 2010; Brecht et al., 2012; Leftheriotis and Giannakos, 2014. Unlike past studies, this present study integrated another key construct (Social Influence–SI, along with HV and UV) taken from a well-known technology acceptance model (UTAUT - unified theory of acceptance and use of technology) to examine the above mentioned research questions to further explore instructors' intention to use social media technology for their work related tasks. In the following sections, we present the literature review and research hypothesis, research methodology, discussion on research findings, conclusion and implications, and limitations and future research.

## 2. Literature review and hypotheses

### 2.1 Social media technology role in education

Social media technology was emerged and accepted widely by millions of people during the end of twentieth century (Ellison and Boyd, 2013). As the time passed, SMT has been embraced by both scholars for learning purposes. The learning theories such as socio-cultural learning (Vygotesy, 1992) stated that learners (especially students) use different styles for their learning. Fritsch (1998) also highlighted the possibilities and potential role of web-based teaching and learning in elementary schooling and in higher education. The adoption of social media in higher education encourages students to collaborate, share learning resources, communicate and develop critical thinking skills for their academic purposes. This adoption can be utilized as an informal tool to enhance the scope of learning (Sharma et al., 2016; Sobaih and Moustafa, 2016). Some recent studies demonstrated the successful fusion between social media technology and higher education. Researchers identified that social media provided a support for the communication between instructors and students in order to create a healthier teaching and learning environment (Dyson et al., 2015; Sugimoto et al., 2015). For instance, Roblyer et al. (2010) examined students' and teachers' perspectives for the adoption of social media tools. Study results showed that students were more inclined towards the use of SM tools than the teachers for their academic activities. Teachers, however, were more interested in traditional technologies such as communication via email. On the other hand, Hung and Yuen (2010) recommended that social media technology can be utilized by the instructors for developing a sense of group learning among students in higher education. The results also highlighted students' positive inclination for learning through social networking sites as supplementary learning tool. Similarly, Wheeler et al. (2008) found that usage of social media tools for students' educational activities reduced students' anxiety level. Students felt that they could finish assignments easily by using social media tools.

### 2.2 Utilitarian and hedonic motivation for social media technology use

User behaviour for using products (e.g. information systems, information and communication technologies) can be classified by the utilitarian and hedonic values perceived by the user for that product (Holbrook and Hirschman 1982). Utilitarian value (UV) – "is referred to the degree to which employee perceives using social media to be a useful and effective means" (Voss et al., 2003). Whereas, Hedonic value (HV) – "is referred to the degree to which employees perceive using social media to be a fun and emotionally stimulating experience" (Voss et al., 2003). The importance of utilitarian or hedonic values can also be seen as the design approaches used by system developers while making systems for productive use and/or prolonged use (Van der Heijden, 2004; kim and Hwang, 2012). Researchers (Gu et al., 2010) proposed a model to investigate perceived utilitarian usefulness (PUU) and perceived hedonic usefulness (PHU) of multipurpose information system such as instant messengers (IMs) used by employees at work. The results showed that PUU had a significant positive influence on user's intention to use instant messengers (IMs) for work purposes. Another study done by Brecht et al. (2012), investigated whether hedonic and/or utilitarian characteristics of social networking platform (LinkedIn, Facebook, YouTube, and etc.) influenced employees' entertainment or job search. Results revealed that both hedonic and utilitarian characteristics of SNS play a significant role in employees' entertainment or job search activities. Another important study by Xu et al. (2012) aimed to examine the usage pattern within SNS by finding utilitarian and hedonic gratifications that individuals seek while using SNS, results clearly revealed that utilitarian factors (coordination and immediate access) had stronger positive impact than hedonic gratifications (impaction, disclosure, escape, leisure, and stylishness) in predicting SNS usage. Motivations behind SMT adoption for work and performance of employees in an insurance company was studied by Leftheriotis and Giannakos (2014). For the analysis, researchers considered UV indicators (impactive, helpful, functional, necessary, and practical) and HV indicators (fun, exciting, delightful, thrilling, and enjoyable) to examine their impact on SM adoption. As per the results, UV influence employees' SM adoption for work more than HV do. Results also highlighted that social media use at work significantly and positively influenced the work performance of employees. In other words, increased use of SM at work improved the productivity of the employees. As per the studies discussed above, hedonic and utilitarian value indicators have seen as valid approach to analyze social media technology adoption by employees (e.g. instructors) for work

related activities ( access to learning and teaching contents, engage students in their course learning, share educational articles/lectures with scholars, and join learning and teaching based communities). In this study, UV is referred to the degree to which instructors perceive using social media technology to be a useful and productive means for their work related activities. Whereas, HV is referred to the degree to which instructors perceive using social media technology to be a joyful and pleasing experience at their workplace. Hence, in this study, we employed hedonic and utilitarian approach used by (Leftheriotis and Giannakos, 2014, Voss et al., 2003) in order to identify whether HV and UV have any stimulating influence on educators' intention to use social media technology for their work related activities. Thus, the following two hypotheses are formulated:

**H1:** Utilitarian value (low, medium, high) of SMTs is positively and significantly related with the Instructors' intention to use SMTs for educational purposes.

**H2:** Hedonic value (low, medium, high) of SMTs is positively and significantly related with the Instructors' intention to use SMTs for educational purposes.

*2.3 Technology acceptance theories and related studies*
Past studies introduced information system/technology acceptance theories and models that suggest various key determinants that influence user's intention or behavior to adopt the social media technologies for various purposes such as entertainment, learning, sharing, and collaboration. One of the eldest information systems acceptance theories DOI (diffusion of innovation) by Rogers (1983) suggested the significance of user's decision to adopt any new IS technology is based on various important factors such as relative advantage, compatibility complexity, triability and observability. Followed by DOI, another model proposed by Davis et al. (1989) known as TAM (technology acceptance model) introduced two new determinants – PU (perceived usefulness) and PEOU (perceived ease of use) to determine user's intention for information systems acceptance. Afterwards, DeLone and McLean (1992) proposed a theory of information system (I/S) success which comprises of six important factors - system quality, information quality, use, user satisfaction, individual impact and organizational impact. Almost a decade later, Venkatesh et al., (2003) compared previously proposed system acceptance models and formulated a new unified model called UTAUT (unified theory of acceptance and use of technology). The UTAUT model integrates components of existing successful models. The main four key constructs of proposed in UTAUT are performance expectancy (PE), effort expectancy (EE), social influence (SI) and facilitating conditions (FC). In light of the above mentioned models, Sharma et al., (2014) examined students' perceptions for course websites used for learning purposes at higher educational institution in Oman. Using TAM, findings of this study revealed that perceived website credibility (PWC) followed by PEOU and PU factors have significant impact on the use of course websites by the students in their higher education. UTAUT (Venkatesh and Davis 2000) as a most widely accepted theory, for validating different factors for technology acceptance, has been used by various researchers in different domains so far. The majority of the researchers (Milosevic et al., 2015; Decman, 2015; Sanchez et al., 2014; Gruzd et al., 2012; Mazman and Usluel, 2010) established their findings in favor of SI construct. Those findings found that SI has positive and significant influence on social media technology adoption for educational activities. In this present study, Social influence (SI) is referred to the degree to which an instructor recognizes the significance of social media technology adoption derived from the perceptions of other instructors. Therefore, SI is considered as the third independent construct to be used to identify its impact on SMTs management learning and teaching practices by the faculty members. To develop our third hypothesis, we assume that SI has positive and significant influence on instructors' intention to adopt social media technologies for their work related activities.

**H3:** Social influence (low, medium, high) is positively and significantly related with the instructors' intention to use SMTs for educational purposes.

*2.4 Social media technologies management by higher education instructors*

Review of several studies clearly showed that social media technologies have a great significance if used in academic context (Sharma et al., 2016; Schwartz, 2009; Selwyn et al., 2008; Boyd and Ellison, 2007). For example, SMT adoption by faculty members of institutions of tourism and hotels exposed that majority of instructors actively used social media platforms (Facebook, WhatsApp, YouTube, Twitter and Instagram) not only to maintain communication with friends or families, but also to connect with other university colleagues for learning and teaching purposes. Academics also agreed that social media can be used as significant supporting tool for academic-related activities in higher education (Sobaih et al., 2016). Similarly, Liu (2010) recognized Facebook, Wiki, YouTube, bulletin board, LinkedIn, and etc. as some of the momentous social networking platforms, if incorporate wisely by educators in their educational practices, can be very helpful in improving students' technology learning skills. Another study (Abdelraheem et al., 2015) analysed the responses of 65 university instructors on social media adoption of and its benefits for teaching and learning. The results revealed that SM platforms play an important role in instructors' work related activities (communication with experienced colleagues, motivate students in class activities, promote students for resource sharing, solve students' queries, and improve self-confidence). Al-ufi and Fulton (2015) in their study, recommended Facebook, Google+, Wikipedia, YouTube, etc. for professional development of the academics. Researchers found these SM platforms useful for exchanging academic information with other instructors, praising research ideas together, and encouraging others for their achievements. Likewise, Ishtaiwa and Dukmak (2013) gathered the opinion of 15 pre-service faculty members about using wikis and blogs as learning tools. According to the opinion of the teachers, blogs and wikis help them in collaborative learning, sharing and spreading knowledge, enlightening creativity and developing reflective and critical thinking skills. Chen and Bryer (2012) also demonstrated the perception of faculty members' social media use. The telephonic interview of 57 faculty members from 28 different universities in USA revealed the consensus of all faculty members on social media use. All faculty members adopted social media either for personal, academic, research, or professional purposes. As per their study results, Facebook was used frequently for personal communication whereas LinkedIn by the faculty for their professional connections. A research done by Abouchedid and Eid (2004) studied the interest and potential benefits of e-Learning facilities used by the teachers in one of the private universities in the Middle Eastern country. As per the results, faculty members enjoy using web controlled learning facilities for their teaching and research, but they disagreed on using such facilities for examination purposes. In light of aforementioned studies, we assume that the adoption and management of SMTs in higher education institutes in a developing country influence instructors' learning and teaching practices. Therefore, the following hypothesis is formulated.

**H4:** SMT use is significantly and positively related with instructors' learning and teaching practices.

### 3. Research methodology
*3.1 Participants and survey instrument*
The objectives of this study include examination of social media (SM) tools adoption by instructors working in one of the seven colleges of technology (CoT) under Ministry of Manpower (MoM), Sultanate of Oman. The survey questionnaire was designed to collect data from the instructors working in different academic departments (Information and Technology, Engineering, Business Studies, and English Language Center) using the convenience sampling method. The pilot survey was tested in February, 2015 followed by the distribution of a revised survey in March, 2015. Over 210 paper-based questionnaires were distributed to all the departments. All the participants were requested to complete the survey within one week of time. Finally, 180 surveys were used for the analysis.

*3.2 Variables measurement*
The questionnaire was pre-tested with thirty randomly selected instructors of different academic departments as mentioned above. The questionnaire was revised after the pilot survey conducted. After we conducted the pilot survey we received suggestions from the respondents regarding the interpretation of the questions. Therefore, some questions were rephrased in order to be more meaningful in terms of clarity and language. The final questionnaire was divided into six main sections and one comments section in the end of the survey. Section (A) was designed to collect demographic information of the participants such as gender, age, education level, and teaching experience. Section

(B) asked about instructors' use of SMT at workplace e.g. how often they use SMT for teaching and learning purposes, do they use SMT to communicate with friends, colleagues or students, and frequency of SMT use at workplace. Section (C) consisted of five indicators (impactive, helpful, functional, necessary, and practical) to measure utilitarian value of SMT use and five indicators (fun, exciting, delightful, thrilling, and enjoyable) to measure hedonic values of SMT use by instructors at workplace (Voss et al., 2003; Leftheriotis and Giannakos, 2014). In section (D), questions were designed to identify instructors' intention to use SMT (Sharma et al., 2016). Section (E), included questions to examine the Social Influence (Venkatesh and Davis, 2000) impact on instructors' use of SMT at their workplace. In the last section (F), questions were formed to determine the impact of SMT use on learning and teaching practices. A five-point Likert Scale ranging from 5 "strongly agree" to 1 "strongly disagree" was used to measure the responses from all the sections (B, C, D, E, and F) except for "frequency of SMT use" in section B, a nominal scale was used. Survey details are presented in an **Appendix.**

### 3.3 Sampling

As mentioned previously, the sample considered for research analysis included total 180 instructors teaching at public higher education college in Oman. As per the analysis, among 180 samples, 68.3% were male respondents and 31.7% were female respondents. The majority of the respondents were over 40 years of age (53.9 %), followed by respondents of age between 30-40 years (42.2%), and respondents of age under 30 years were only (3.9%). In terms of respondents' educational level, the majority of instructors were found with Masters (67.2%), Doctorate (20%) and Bachelors (12.8%). With regard to teaching experience (71.1%) of instructors had teaching experience of over 10 years followed by (22.2%) with teaching experience between 5-10 years, and (6.7%) with 0-5 years of teaching experience. The summary of demographic details is given in Table 1.

In order to conduct our study analysis, research question one (do instructors use social media technologies at their workplace?) a descriptive statistics is used. For the research question two (What factors influence instructors' intention to use SMTs for educational purposes?) and the research question three (What factors influence instructors' teaching and learning practices?) inferential statistics using Analysis of Variances (ANOVA) was performed. IBM SPSS Statistics v23 software was used for the analysis purpose.

**[Table I about here]**

### 3.4 Descriptive statistics of survey variables

As shown in the Table 2. The social media technology use at workplace (SMTW) was measured on four item scale ($\alpha$=0.79, M= 3.7, S.D. = 1.05). Both utilitarian values, UV ($\alpha$=0.92, M= 3.9, S.D. = 0.91) and hedonic values, HV ($\alpha$=0.93, M= 3.5, S.D. = 0.98) were both measured on a five item scale for each value. Intention to use SMT at workplace (INTW) was measured with three item scale ($\alpha$=0.91, M= 3.8, S.D. = 0.94). Social influence on SMT use (SISMT) was measured on a three item scale ($\alpha$=0.88, M= 3.2, S.D. = 1.10). SMT impact on educational practices (SMTEP) was measured on a four item scale ($\alpha$=0.88, M= 3.7, S.D. = 0.99). All the scales were measured using 5-point Likert scale and the composite measures were calculated as an average of the multi-item scales.

**[Table II about here]**

## 4. Research Findings

### 4.1 Social media technologies management at workplace

As mentioned in the literature review that previous studies investigated the use of social media for educational purposes especially by students. But the adoption of social media technologies by the instructors at their workplace has not yet studied equally. Thus, in order to determine answer to our first research question (Do instructors use social media technologies (SMTs) at their workplace?) we

performed the descriptive analysis. As shown in the Figure. 1, it is observed that forty nine percent (highest) of the instructors are moderate level users of SMT at their workplace. Twenty four percent uses SMT occasionally during their working hours, followed by eighteen percent instructors who think SMT use during working hours is great deal for them. Seven percent of the instructors were found as rare users of SMT at workplace. However, only two percent of the total instructors were found as non-users of SMT at their workplace.

**[Figure 1 about here]**

In order to identify if age and teaching experience of the instructors limit or hinder them on using SMTs at their workplace, we conducted an ANOVA. The results showed that age group does not impact instructors to use SMTs at their workplace $F (2, 177) = 0.31, P> 0.05$. Also, teaching experience of the instructors does not restrict them to use SMT at workplace $F (2, 177) = 1.6, p> 0.05$.

*4.2  Intention to use social media technologies*
As per our literature review, past studies clearly highlighted the role of constructs such as utilitarian value, hedonic value (Voss et al., 2003) and social influence (Venkatesh et al., 2003), in technology acceptance and their impact on users' intention to adopt those technologies for various purposes including learning and teaching. Therefore in this study, UV, HV and SI constructs are considered for the critical examination of their impact on instructors' intention to use social media technologies for educational purposes (research question 2). In order to analyse the influence of UV, HV, and SI, we used two steps of analysis for each construct (see Figure. 2.)

In the first step, we divided the mean responses obtained for UV construct (impactive, helpful, functional, necessary, and practical) into three groups (low, medium and high) based on the likert scale responses. In the second step, we performed ANOVA to determine the impact of UV on instructors' intention to use SMTs for educational purposes. Results obtained from the analysis showed a positive and significant influence of UV construct ($F(2, 173 )= 53.04, p < 0.001$) on instructors' intention to use SMTs for educational purposes.Thus, H1 supported.

Similarly, we divided the mean responses obtained for HV construct (fun, exciting, delightful, thrilling, and enjoyable) into three groups (low, medium and high) based on the likert scale responses, followed by performing ANOVA to determine the impacts of HV on instructors' intention to use SMTs for educational purposes. Like UV, HV was also found as positive and significant ($F(2,173) =13.12, p< 0.001$) construct that influence instructors' intention to use SMTs for educational purposes. Therefore, H2 supported.

In order to identify the impact of third construct SI, we repeated the similar steps by dividing the mean responses obtained for SI into three groups (low, medium and high) followed by ANOVA. Analysis results clearly showed that SI (like UV and HV) too has positive and significant influence ($F(2, 173) =12.21, p<0.001$) on instructors' intention to use SMTs for educational purposes. Hence, H3 supported.

**[Figure 2 about here]**

In addition, we analysed the reponses obtained for each item of **INTSMT** (see Appendix- Survey) to statistically understand  instructors' inclination for using social media technologie for eudcational purposes. As shown in Figure. 3., it is revealed that 50.6% of the instructors were agreed that they are satisfied with the use of SMTs for educational purposes (mean 3.72, s.d. 0.899). We also found that 42.2% of the instructors were agreed that they plan to continue the use of SMT for educational purposes in the future (mean 3.81, s.d. 0.959), and 43.3% instructors were agreed that they would recommend SMTs to their colleaugues for educational purposes (mean 3.80, s.d. 0.954).

**[Figure 3 about here]**

*4.3 Impact of SMT on learning and teaching practices*
In direction to address our research question 3, social media technologies impact on learning and teaching practices of the instructors, we divided the mean responses of SMTW into three groups - low, medium and high (as shown in Figure. 4). Afterwards, an ANOVA was performed to examine the relation between instructors' learning and teaching practices and their SMTs management at workplace. The results of the analysis indicated a significant and positive relation $F(2,175)= 38.17$, $p<0.001$. Thus, H4 accepted.

**[Figure 4 about here]**

## 5. Discussion

In this present study, we investigated how instructors manage SMTs at their workplace and the impact of UV, HV and SI on instructors' intention to manage SMTs for educational purposes. In addition, our study also examined the relation between SMTs use at workplace and instructors' learning and teaching practices.

The first phase of our research analysis was to identify whether the instructors use SMTs for work related tasks at their workplace or not? The findings showed that almost half of the total number of instructors surveyed at technical college in Oman used SMTs at their workplace on usual basis. However, only two percent of the instructors had never used SMTs at their workplace. To the contrary of previous study (Roblyer et al., 2010), the findings of this study revealed that ninety eight percent of the faculty members use SMTs either for teaching and learning, communicating with students or interacting with friends/colleagues. Thus, it can be inferred that the majority of the instructors believe that social media technologies play a significant role in learning, teaching and communication activities at workplace. Our findings are in accordance with the findings of Yuen (2010); Dyson et al., (2015); Sugimoto et al., (2015).Results also showed that both age and experience of the users have no significant impact on the use of SMTs for work related activities at workplace. This finding can be seen as inconsistent with the work of Skeels and Grudin, (2009).

The second phase of research objective was to examine the factors that influence instructors' intention to use SMT for educational purposes. The findings of our study showed that in high category all construct SI, UV and HV leads to the stronger intention of the instructors to use SMTs for educational purposes. However, SI was slightly higher than UV followed by HV constructs. Furthermore, instructors lying under medium category, again SI was observed slightly higher than HV followed by UV. In low category, SI was observed higher than HV followed by UV. Therefore, in low and high categories SI was found as dominating construct to control instructors' intention to use SMTs (see Figure 2). These findings can be seen as consistent with the results (Milosevic et al., 2015; Gruzd et al., 2012; Mazman and Usluel, 2010) that suggested SI as one of the important determinants that impacts users' intention to adopt SMT for their academic activities. As we understood the impact of UV and HV on instructors' intention, it can be perceived that except for the high category, HV's influence is stronger on instructors' intention than UV's. This finding is consistent with the results of Leftheriotis and Giannakos (2014). Thus, the overall analysis evidently suggested that among SI, UV and HV constructs, SI is greatly and positively influence instructors' intention to use SMTs for e-learning and teaching purposes in comparison to UV and HV.

In addition, our descriptive statistical results showed that more than half of the instructors agreed that they were satisfied by using SMTs for educational purposes. Instructors also believed in continuation and recommendation of SMT use in future.

The final phase of our research analysis was to determine whether SMT use at workplace influence instructors' learning and teaching practices or not? Our critical analysis showed that the higher use of SMTs at workplace positively and strongly influences instructors' learning and teaching practices. The results claim that instructors are strongly inclined toward SMT use for joining relevant communities,

accessing information posted by other educators, engaging students in their course learning, and sharing educational lectures or articles with scholars. This finding can be seen as consistent with (Sharma et al., 2016; Liu, 2010; Bonk, 2008).

## 6. Conclusion and implications

The aim of this study is to investigate the management of social media technologies (e.g. Google+, YouTube, Facebook, Wikipedia etc.) by the faculty members of one of the higher education colleges in Oman. In this study, instructors' frequency of SMT use at their workplace and intention to use SMTs for learning and teaching purposes are examined. As the results of this study revealed that ninety-eight per cent of the instructors use SMTs at their workplace irrespective of their age and teaching experience, it can be concluded that faculty members teaching higher education are equally and positively inclined to technology acceptance and in order to attain the possible benefits from SMTs adoption.

This study employed the utilitarian, hedonic and social values as the key constructs to examine their impact on instructors' intention to use SMTs for learning practices. Examination on instructors' motivation for SMT adoption shows that more than half of the sampled instructors agreed that they are satisfied with the use of SMT for educational purposes at their workplace. As the analysis clearly showed the positive intention of the instructors on continued use of SMT for educational purposes and also recommend their colleague the same, we can reach the conclusion that instructors' adoption these technologies will certainly alter the traditional learning and teaching practices of the faculty members working in the higher education colleges in Oman. This shift may also help the instructors to get equipped themselves with technologies that support their work related activities.

The further analysis of the constructs leads to the understanding that social influence is the most important factor followed by utilitarian and hedonic values responsible for instructors' motivation to use the SMTs for academic activities. The results evidently verify that instructors' intention to use SMTs for educational purposes is rather driven by the adoption and recommendations of fellow instructors than its utilitarian and hedonic values. This can also lead to the conclusion that the instructors at higher education colleges must be motivated either by their colleagues and/or the policymaker to adopt social media technologies for educational purposes.

Another major contribution of this study is that instructors' learning and teaching practices are positively influenced by instructors' SMT use at their workplace. In other words, use of SMT supports instructors to share educational contents with their students and/or colleaugues, engage students in their courses, retrieve teaching and learning related information posted by other educators while joining various leanring communities (Abdelraheem et al., 2015).

Studies in the past acknowledged various benefits of SMTs adoption in higher education (Sobaih et al., 2016; Al-ufi and Fulton, 2015; Ishtaiwa and Dukmak, 2013; Liu, 2010) for academic activtities. The findings of this study can be used as the recommendations for the instructors who still believe that SMT use is not significant for educational, learning and teaching practices. Faculty members, who use SMTs may set a tradition to be followed by their fellow instructors to take benefits from SMT adoption. This will certainly help instructors' community to improve their learning and teaching practices in order to develop a more technically sound educational enviornment.

Our study can also be used by the head of the departments, course coordinators, college administration, and policy makers as directions to motivate instructors for the adoption of SMTs for learing and teaching activities. Such policies will also support the professional expansion and development of education system in technical colleges in Oman. We believe that instructors' adoption of SMTs for learning and teaching purposes will certainly allow them to develop existing educational settings (Dyson et al., 2015; Sugimoto et al., 2015) in higher education colleges in Oman. Integration of social networking tools in educational practices followed by the instructors will certainly draw the attention of other faculty members working in different colleges and universtities in Oman. Such motivation for SMTs adoption for learning and teaching will allow instructors to improve their way of performing academic duties as well as institutions to achieve their overall goals, vision and mission.

## 7. Limitations and future research

Like other previous studies, this research also has limitations which must be considered in future research. First, in this study the sample was collected from one of the seven colleges of technology owned by the ministry of manpower, Oman. Sample may include responses of the faculty members working at other six technology college in Oman for more value-added and significant results. The results presented in our research can be recognized as potential characteristic of the majority of the instructors. However, the findings of present study cannot be generalized, because faculty members in other technology colleges may have different point of views on SMT use for educational purposes. We believe that further empirical analysis on sample data from other colleges may expand the scope of this research and provide better outcomes in order to generalize the results. Second, similar study can be conducted in higher education colleges in other Middle East countries to examine the opinion of the faculty members on SMTs Management for educational purposes. Finally, further research may employ already proven qualitative and quantitative statistical methods and technology acceptance approaches (Davis et al., 1989; DeLone and McLean, 1992; Venkatesh et al., 2003) to predict the key factors that impact instructors' intention on SMTs management for learning and teaching purposes.

## Acknowledgement

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**Appendix. Survey used in study**

**SURVEY**

**A. Demographic profile**
**Gender:**
    Male                 Female


**Age:**
    Under 30 years       30-40 years        Over 40 years


**Education Level:**
    Bachelors            Masters            Doctorate


**Teaching Experience:**
    0-5 years            5-10 years         Over 10 years


**B. Social Media Technology use at workplace (SMTW)**
I often use SMT for teaching and learning purposes. (SMTW1)
I regularly use SMT for maintaining communication with students. (SMTW2)
I frequently use SMT to interact with friends/colleagues. (SMTW3)
What is your frequency of SMT usage at workplace? (SMTW4)


**C. Social Media Technology use at your workplace is: (UV+HV)**
Impactive: (UV1)
Helpful: (UV2)
Functional: (UV3)
Necessary: (UV4)
Practical: (UV5)
Fun: (HV1)
Exciting: (HV2)
Delightful: (HV3)
Thrilling: (HV4)
Enjoyable: (HV5)


**D. Intention to use social media technologies (INTSMT)**
I am satisfied with use of SMT for educational purposes. (INTSMT1)
I plan to continue the use of SMT for educational purposes in the future. (INTSMT2)
I recommend my colleagues to use SMT for educational purposes. (INTSMT3)


**E. Social Influence impact on SMT use at workplace (SISMT)**
I use SMT at work because my colleagues are also using it. (SISMT1)
I use SMT at work because my colleagues recommend it. (SISMT2)
I use SMT at work because my colleagues expect me to use it. (SISMT3)


**F. SMT impact on learning and teaching practices (SMTLT)**

I use SMT to join learning and teaching based communities. (SMTLT1)
I use SMT to access to learning and teaching contents posted by educators. (SMTLT2)
I use SMT to engage students in their course learning. (SMTLT3)
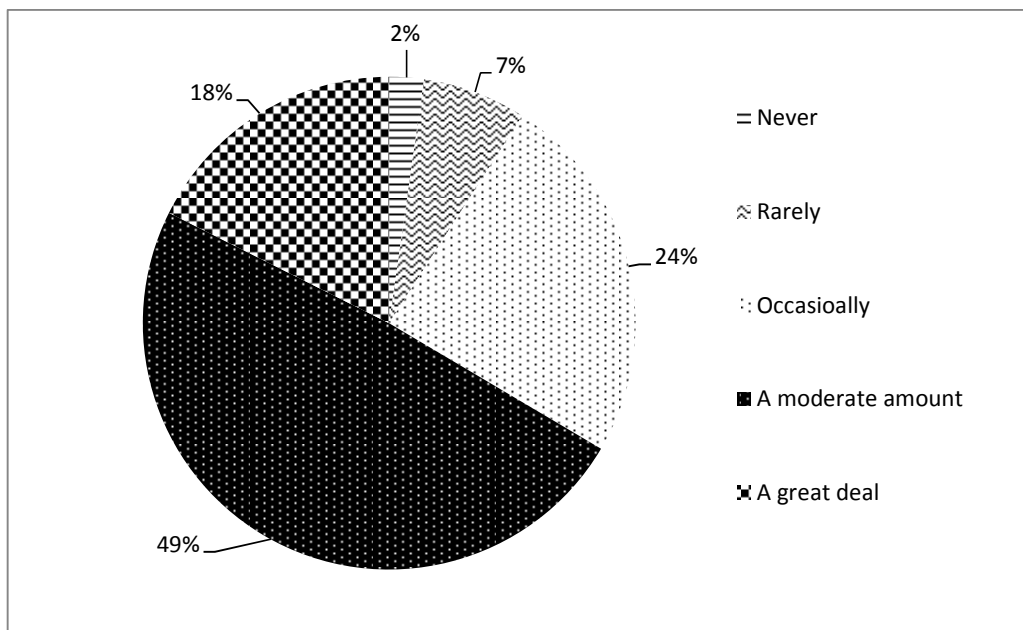I use SMT to share educational articles/lectures with scholars. (SMTLT4)

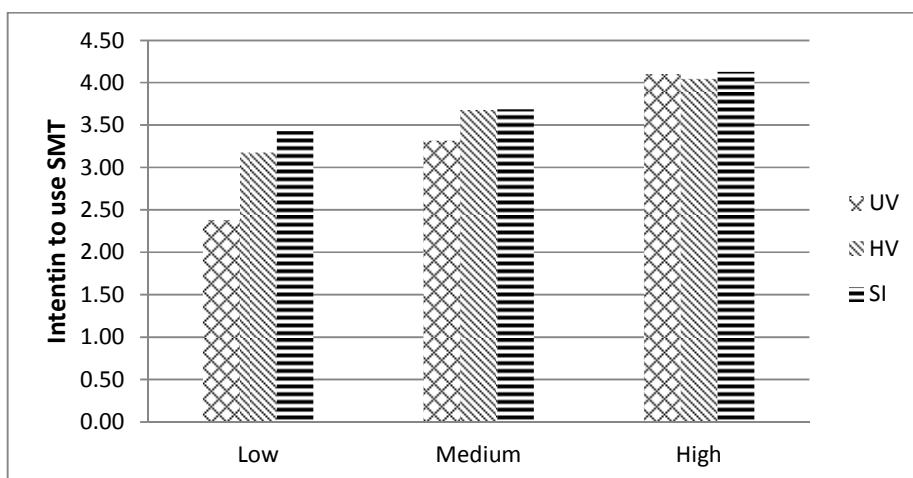**Figure 1. Social media technology use by instructors at workplace**



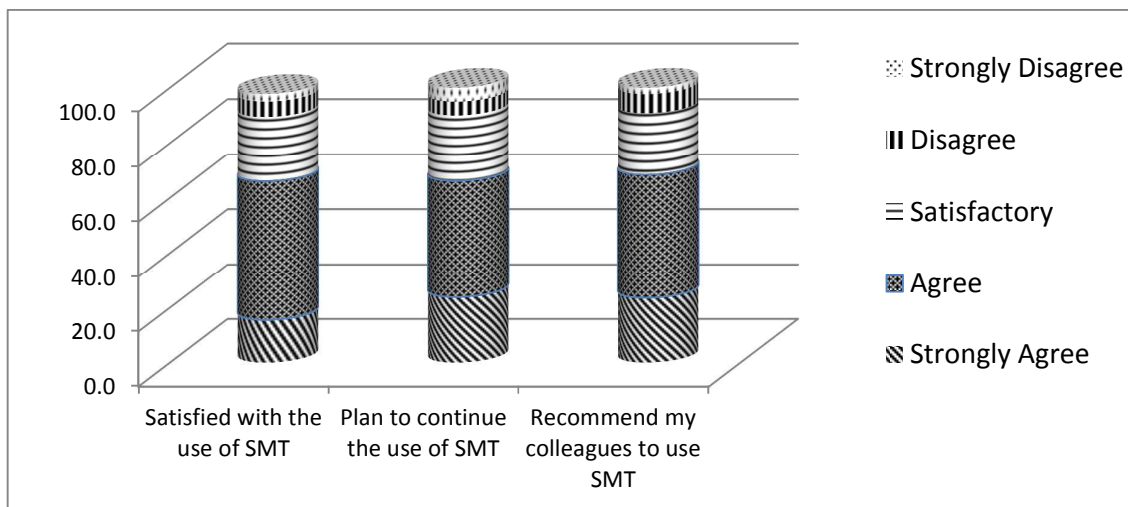**Figure 2. Intention to use SMT in relation to UV, HV and SI**

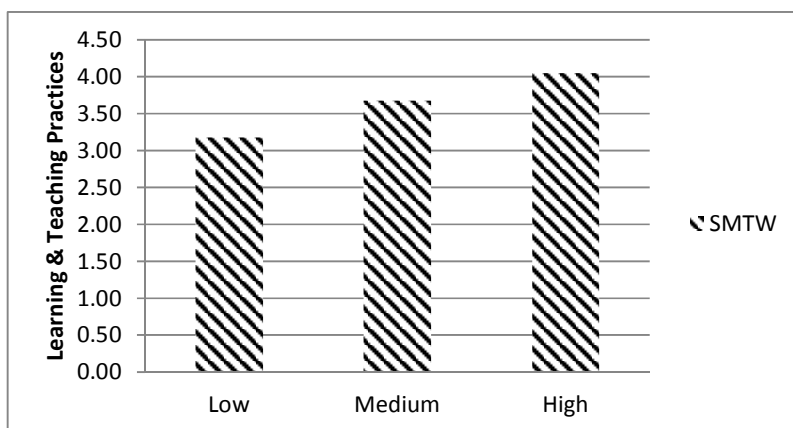**Figure 3. Instructors' intention on SMT use for educational purposes**



**Figure 4. Relation between SMT use at work and Educational practices**

**Table I.** Demographic details of the participants.

| Variables | | Frequency | Percent |
|---|---|---|---|
| Gender | Male | 123 | 68.3 |
| | Female | 57 | 31.7 |
| Age | under 30 years | 7 | 3.9 |
| | 30-40 years | 76 | 42.2 |
| | over 40 years | 97 | 53.9 |
| Educational level | Bachelors | 23 | 12.8 |
| | Masters | 121 | 67.2 |
| | Doctorate | 36 | 20.0 |
| Teaching Experience | 0-5 years | 12 | 6.7 |
| | 5-10 years | 40 | 22.2 |
| | over 10 years | 128 | 71.1 |

**Table II.** Descriptive statistics of variables

| Variables | Mean | SD | Cronbach's α |
|---|---|---|---|
| SMTW | 3.7 | 1.05 | 0.79 |
| UV | 3.9 | 0.91 | 0.92 |
| HV | 3.5 | 0.98 | 0.93 |
| INTSMT | 3.8 | 0.94 | 0.91 |
| SISMT | 3.2 | 1.10 | 0.91 |
| SMTLT | 3.7 | 0.99 | 0.88 |