

THE INSTRUMENT USED IN MEASURING EMPLOYEE PRODUCTIVITY BASED ON SOCIAL MEDIA USAGE: A REVIEW

Shahrulanuar Mohamed¹, Safiah Sidek², Norliah Kudus³, Mahadi Abu Hassan⁴, Siti Zakiah Izharrudin⁵

¹Centre of Languages and Human Development
Universiti Teknikal Malaysia Melaka, Melaka, Malaysia.

²Research Group IS3, C-Act
Universiti Teknikal Malaysia Melaka,
Melaka, Malaysia.

Email: shahrulanuar@utem.edu.my, safiah@utem.edu.my,
norliah@utem.edu.my, mahadi@utem.edu.my, sitizakiah9093@gmail.com

ABSTRACT

Social media has become necessity among organization in order to enhance the productivity or job performance among employee. It has been claimed as the effective communication channel among employee to corporate toward collaboration, knowledge sharing, etc. Nevertheless, as the social media become the most priority among individual and organization, it has also become one of the factors that contribute to the disruption of work productivity. Thus, this review paper aimed to conduct comparison analysis in the methodology used and the instrument adopted or developed by researcher in measuring the social media usage and employee productivity. There are 32 studies being selected and majority of the study has been conducting quantitative approaches through online survey in identifying the frequency of social media usage. From 32 studies only 5 studies have been applicable in measuring work productivity based on the impact of social media usage. The finding presented in this review paper will provide a deep understanding in designing new instrument in measuring the productivity of employee based on the social media usage rather than any negative factors that contribute to the lowest productivity at workplaces.

KEYWORDS: *comparison analysis, social media usage, instrument, employee productivity*

1.0 INTRODUCTION

Social media have enriched organizations by its capabilities to enable a multitude of uses in creating business marketing techniques and its models (Hassan *et al.*, 2015). This technological innovation has been increasingly adopted by most of the organization as it can improve the demands prediction, allowing the excellent management and learning practices, increasing the innovation, collaboration, knowledge sharing and communication. Employees have been regarded as assets with big roles to survive and succeed in challenges organization environment. Thus, the productivity produced by the knowledge employees is become the main priority needed by the organizations as it was claimed to have greater account more than to-thirds of the workforce (Munene and Nyaribo, 2013). The connections between social media and employees in working places have become mandatory skills in organization and their life too. Indeed, it is not surprising the higher implementation and adoption of the social media during working hours as it provides new valuable skills, practices and communication among employees. Social media can be categorized in many types such as social network, email, text-messaging and interest based network (music, etc.), media sharing network (YouTube, Vimeo, etc.) and search engine (yahoo, Google). The platform provided by social media has been claimed as a fundamental tool that change people life tremendously. The social media has been broadly changing the human behaviors as it is claimed as a focus for every human interest and activity (Munene and Nyaribo, 2013). However, massive adoption of social media in the organization has directly disrupted the employees and organization productivity. The evolution of social media in organization has brought the disadvantages towards the employees. Not only the productivity is disrupted, they can also be addicted toward social media usage which exerts many negative influences toward employee and organization. Many organization were facing dilemma in letting the adoption of social media usage in working places as it have the both sides of advantages and disadvantages toward the company.

The critical of the issues has raised concern from some researcher to measure the productivity or job performance among employee based on the adoption of social media usage during working hours. Furthermore, recent study only focuses on the impact of Internet usage toward employee's productivity rather than the impact of social media usage. There are diverse instruments used in measuring the productivity or job performance of employees in

workplaces. They have also conduct different methods in measuring the productivity among employees in regard with the utilization of social media. Most of them would use social media usage criteria that involve the frequency, location, purpose, devices and type of social media used to link with their job performance in organizations. The finding from the measurement contributes to unique finding which gain a lot of interest from other researchers as well. The instrument of measuring the productivity can be build based on the growing body of literature. In addition, it can be referring as an initial action to curb the disruption of productivity due to the massive usage of social media in working places. Thus, it is important to have deep understanding on the method conduct and the criteria being used in the instruments based on primary studies conduct in systematic way.

Considering the employees have been regard as assets to organization and country, it is the right time to examine a widely and efficient instrument to measure their productivity. Hence, their productivity level can be improved and encourage them to use the social media in right manner during working hours which can boost their job performance at workplaces. This review paper aimed to identify the broad instrument used in order to measure the employee productivity based on the social media used by comparing the methodology and the instrument adopted by previous research. The review is structured according each of section: first section starts with introduction, following next section the synthesis of the review. The other two sections will present the methodology and discussion of the study. Finally, the paper section will be ending with a conclusion.

2.0 LITERATURE REVIEW

The usage of social media has become necessity in some of the organization. The organization has increasingly adopted and encourages the social media usage among employee with aim to increase the profit of the company and enhance the productivity of employee in work places. Gallup organization has conducted a survey on 2013 and 2014 in identifying the percentage of workers who disengaged with their task at work. They found that more than 70 percent of employees in United States have been disengaged with their task related work because of the distraction of social media and personal email during working hours (Adkins, 2015). It does show that only 30 percent of U.S employees were concentrated and committed to their work and workplaces. The wide usage of social media on workplaces has raised concern among managers and employer in organization. The study on social media usage among employee has been extensively conducted by many researchers worldwide. However, only few researcher was interested in measuring the impact of the social media usage on the productivity. Thus, this review paper aimed to identifying the various type of instrument used to measure the employee productivity regarding to the social media usage. Due to the high interest on instrument used in measuring the productivity, this study mainly focuses on two aspects of study such as the comparison analysis of the methodology used by previous study and the various instrument used based on frequency of social media usage and employee productivity.

2.1 Comparison Analysis of the Methodology from Previous Related Study

After conducting systematic literature review in order to choose the relevant primary study, we have found that majority of the researcher are conducting the quantitative methodology in identifying the impact of social media usage toward employee productivity. They have conducted the study based on self-report survey or asking them to answer the question based on online platform. Seman (2014) has conducting the study based on self-report survey between the social network site usage and work productivity among employee in three different organizations. There are also different approaches of conducting self-administered questionnaire among researcher by which Brooks (2015) has conducting a quantitative approach but two surveys were created before and after a specific task was provided to measure self-reported information

on the constructs of interest. There are many researchers who conducted the quantitative approaches using online platform as to identifying the usage of social media and the impact of usage toward employee productivity. These platforms are very efficient in conducting this topic of study. This is because social media usage is prevalent and familiar among these demographics like employee in organization. However, the quantitative approach is less likely to contribute to the real measurement of employee productivity which can give deep understanding on the real impact of the usage toward the employee productivity. Thus, this paper suggest that the quantitative approaches should be combine with other method in order to give a unique and high contribution from this study toward the organization and individual.

There is also some researcher who conducted their study using single longitudinal case study. The researcher has been using these approaches in order to focus on the understanding on how the use of social networking technologies facilitated or hindered the knowledge exchange among employees (Chun, 2013). He found that there were gender differences in the frequency by which the social networking were used within their work environment. Some of the researcher has also conducted mixed method in identifying the impact of social media usage toward employee productivity or job performance. The researcher has been using an exploration in sequence of conducting mixed method by which it started with qualitative analytical phase and followed by quantitative measurement (Ferreira and Plessis, 2009). He carried the empirical study by performing interviews with selected individual and later he conducted the survey in measuring the group knowledge and the various usages of online social network sites. Skeels and Grudin (2009) have earlier using social networking software like company's (Social Computing) and (Facebook Discussion) distribution lists among 525, 170 and 210 employees respectively. However, the range of attitudes among employees was ultimately differed and unpredictable. That's why he then supported his study using mixed method by performing a survey among 1000 respondent in company address book followed by semi-structured interviews with 30 people (Skeels and Grudin, 2009). This approach has been familiar among researcher in getting the understanding on the impact of the social network usage toward employee productivity with strong perspectives. The quantitative measurement will give understanding about the frequency of and impact of the usage toward employee productivity. But qualitative approaches

have given a unique keyword in finding the real measurement in measuring the outcome or the productivity of the employees in organizations. However, this method is more focusing on the social network usage rather than a wide scope like social media usage.

Instead of the methodology explained above, there are other methods used by certain researcher in identifying the impact of email interruption on worker productivity. He has been using a video recorder known as WinVNC to record the employee activities throughout the day (Jackson, 2001). The computer software was the last option in monitoring the employee activities and productivity. This type of computer software was set-up to monitored the employees machines remotely on both client and server side. This method was actually efficient in measuring the productivity based on the result from the computer software. The other researcher has been using data collected from multi-national electronic corporations in United States to measure the number of blog entries made by each employee. Blog usage has been famous nowadays among employee as it provides the support to daily tasks such as knowledge sharing, coordination, communication, locating information and expertise (Wattal *et al.*, 2009). The freely usage of email during working hours can lead to the productivity interruption among employees. Thus, he was using the easier way to measure the impact of blog usage toward work productivity by collecting the log data from an individual in different organization. Nevertheless, the methods used by previous researcher are not suitable to be used in generalized employee who working in higher learning institutions because of different job scope and demographic location. Thus, it is important to note that the other methods should be used in small company rather than large organization or institutions.

Based on the discussion above, researchers were trying with different approaches in identifying the impact of social media usage toward employee productivity. However, as to date there is limited number of study who conducted the qualitative approaches in examining the impact of social media usage toward employee productivity. Thus, the review paper aimed to conduct qualitative approaches regarding to the usage of social media on Malaysian employee productivity in future study.

2.2 The Analysis on the Instrument Used in Study

2.2.1 The Frequency of Social Media Usage

Based on the instrument used by previous researchs, majority of them would use the usage of social media on the working places. They would include the frequency of social media usage, the location of accessing the social media, type of devices used to use social media and the purposes of social media usage during working hours. Most of the researcher would using all the criteria or choosing either two to three criteria in the social media usage. They prefer to put the social media usage on the second part of survey (Yeshambel *et al.*, 2016; Martensen *et al.*, 2011; Brouns, 2009; Seman, 2014). Charles (2009) has explores the relationship between internet social network use and the dimensions of social capital. He has been using the Facebook Intensity Scale inside his web based survey among 2435 users.

However, some of study has focusing on the motivation of using social media in the working places. There are different motivation based on each study. Francois *et al.*, (2013) were using the instrument of Facebook Intensity Scale (FIS) build by Ellison (2007) in measuring the motivation of Facebook usage beyond simple measures of frequency. Instead of conduct the instrument using quantitative approaches, Norizah Aripin (2011) has determining the motive of using instant messaging in working places which slightly different from the survey by performing qualitative methodology in her study. They were using by motive of working instructions information from employer to clerk, colleagues, staff to colleagues, for reminder information, social information and emotion relationship. While, Ashraf and Javed (2014) has explore the motivation of employees in different perspectives by either showing an increase or decrease with the use of social networking.

2.2.1 Facebook Intensity Scale

Most of the researcher has also used the instrument Facebook Intensity Scale build by Ellison (2007) in identifying respondent attitude and behaviour toward the impact of online social network. It also incorporated the connection toward the emotional and individual's daily activities. The scale were provided in 5 Likert scale from strongly disagree to strongly agree. However, recent study more focus on student population compared to employee in adopting this scale into their study. Ferreira and Plessis (2009) has found that Facebook

was the popular social media that interact with changing of psychological well-being among people. It have provided the low satisfaction life and make the Facebook users experiencing low self-esteem.

2.2.2 Social Capital Scales

Some study has been linking the social capitals functions among employee with social network sites. The technical and social affordance has allowed the interactions of employee with a larger network of social connections (Stenfield *et al.*, 2009). He found that the higher intense of the usage of social network sites among employees the higher their social capital scores in the instrument provided. However, when relate to the productivity the lower weak ties appear to show high productive compared to the stronger ties. Watanabe et al (2010) has also used the social capital scales into his study but the finding showed that the productivity are increased by using internet based on social network sites with both higher social capital and innovativeness in the company. Thus, the use of social networks sites has enhanced the productivity among employee in working places.

Skeels and Grudin (2009) has examine the attitudes and behaviour of employee in a large technologically savvy organization by adopting the Social Capital Scales in his study. He relate the usage of Facebook at work by the employees with the higher building of social capital in organization. However, this study more focusing on the adoption of social networking technology in the organization compared to the productivity of employee. This is because the productivity of each employees is very difficult to be measured through this Instrument.

Based on the review of the study above, there are gaps identified based on the Social Capital Instrument adopted. First of all, majority of the study who adopt this instrument were conducting their methodology quantitatively. Second, it is difficult to measure the productivity of employees based on the items involved in Social Capital Scales. Thus, it has provide an opportunity for future study to conduct this instrument qualitatively or by mixing the quantitative and qualitative approach for giving deep understanding toward the employee productivity.

2.2.3 Work Productivity Scales

There are various type of Work Productivity Scales being used by researcher in order to measure the employee productivity in working places. Endicott and Nee (1997) has been developed the Endicott Work Productivity (EWPS) in order to obtain the work productivity measurement. The items were developed based on the behaviours and attitudes of employee which tend to show the decline in their productivity and job performance. High reliable and validity of this measurement has made it become sensitive measurement in identifying the impacts of illness on their work performance. The measurement of the outcome of their efficiency in work activities is reliable and easy to use. However, the focus of the study is totally relied on the illness problem rather than impact of social media usage.

There are other measure of productivity such as the Work Productivity Activity Impairment Scale and Work Productivity Short Inventory. Goetzel *et al.*, (2003) has developed Work Productivity Short Inventory (WPSI) in order to assess the prevalence of medical problems that may influence work productivity. The items involved in the instrument mainly asking the respondent the amount of unproductive time spent at work which affected by health problem. The WPAI has exist in two version which is the general health and specific health problems. The WPAI has evaluated the productivity of employee based on their absenteeism and time missed from work due to other personal reasons. Hence, the researcher has been scoring the productivity in ten point scale from no effect on work to completely prevent me from working. However, most of the instrument has been measuring the productivity from the impact of health problem rather than social media usage in the working places.

While, there are other study who measuring the productivity of organization based on the factors that influences organization to use social network sites namely, connections and contact, knowledge sharing, learn new skills and stress relief (Seman, 2014). There are positive and significant relationship exists within each variables identified and work productivity in organization. Based on the instrument explained in measuring the work productivity, there are limited number of studies who conduct the real measurement of employee productivity based on the impact of social media usage in working places. Thus, it give high opportunity for future study in developing the instrument of measuring the employee productivity based on the impact of social media usage rather than health problem.

2.2.4 Job Performance Scales

Yusoff *et al.*, (2014) has adopting the Job Performance Scales that is developed by Goodman and Svyantek (1999). The instrument consist of 25 items that covered on three dimensions namely, altruism, conscientiousness and task performance among employee. He has found that the istrument adopted is high reliable in identifying the relationship between University teachers stress, performance and emotional intelligence (Yusoff et al, 2014). While, other study has also adopt the Job Performance Scale in conducting their research in investigating the effect of personal social media usage on task performance (Brooks, 2015). However, there is a little different from the items developed by Goodman and Svyantek as he have using different variables in designing the Job Performance Scale. The variables that are identified are attentional control, multi-tasking computer self-efficacy, happiness and technostress. He found that higher amounts of personal social media usage led to the decrease of performance on task as well as the identified variables such technostress and happiness were higher and lower respectively. Leftheriotis and Giannakos (2014) has measured the motivations of social media usage by measuring the utilitarian and hedonic values that incorporated along with Social Media Use for Work (SMUW) and Work Performance (WP). Work Performance were concluded as a sensitive measurement and suitable to be used among their respondent. Job Performance Scale has been used by many researcher in order to identify their performance on work. However, majority of the scales developed and adopted by previous research do not show the real measurement on how the performance were divided into three professional levels in order to identifying the level of productivity.

Based on the instrument used by previous study, there are many other instrument used such as Affective Commitmen Scale, Happiness Scale, Job Satisfaction Scale, Absenteeism Scale, Turnover Intention Scale, Return on Investment Scale, etc in order to measure the productivity of employee in organisations.

3.0 METHODOLOGY

The selection of paper were conducted systematically. There are two questions addressed in this paper. Firstly, what is the gaps found in the methodology conducted by previous researcher. Second, what is the major instrument used in order to assess employee productivity and social media usage. There are about 32 studies that meet the objective of this study after following the inclusion and exclusion criteria suggested by Kitchenham (2009) regarding to the social media usage with employee productivity. However, when we narrowed down to the instruments used in measuring the employee productivity based on the social media used only five studies are applicable to be used. Thus, only five study has been adopting the real instrument of measuring the employee productivity.

4.0 RESULT AND DISCUSSION

The social media usage nowadays has been explore and adopted by majority number of organization in order to improve their business profit and productivity. Some of the employee has used the social media in control manner as it brings the benefit toward the organization. However, some of them have been careless in using the social media for activities that are not beneficial toward the organization. Thus, this study will explore the methodology and instrument used by previous research in order to examine their social media usage and productivity at workplaces.

4.1 Comparison Analysis of Methodology used by Previous Study

The comparison analysis of the methodology used by previous study can be shown in Table 1.

Table 1: Comparison analysis of methodology used based on previous study

Number	Quantitative approaches		Qualitative approaches	Mixed methods	Others	Reviews
	Self-report	online				
1	5	-	-	-	-	-
2	-	10	-	-	-	-
3	-	-	1	-	-	-
4	-	-	-	5	-	-
5	-	-	-	-	2	-
6	-	-	-	-	-	10

Based on the table 1, there are 32 studies that conduct the social media usage among employee in the organization. There are 15 studies that conducted their research using quantitative approaches. The quantitative approaches can be separated into two types which are self-administered survey and online survey being conducted by researcher. There are 5 studies that conduct the quantitative approaches using self-report survey and 10 studies using online survey. Only 1 study is using qualitative approaches to perform his research. However, he has using the longitudinal study that incorporate the first and second step to conduct the study. Chun (2013) has to collect the multiple sources of historical data before going to second phase which is to interview the top executives. He has been using in depth interview in his study to strengthen the finding. Some researcher has been using mixed method in their study. There are 5 studies that conduct survey and interview in their study to improve the reliability of their findings on the instruments used among respondents. Only two studies were using different methods in identifying the productivity loss among employee based on the social media usage such as computer software known as WinVNC and blog entries (Thomas, 2001; Wattal, 2009). The other study has discussed the usage of social media and employee productivity in the organization through literature review.

Based on the number of studies searched, majority of the researcher would perform their study by using quantitative approaches compared to other methods. While, there is very limited number of study that explore the impact of social media usage on employee productivity. Thus, we concluded the qualitative approaches is the best method in identifying the social media usage on employee productivity at workplaces in future study.

4.2 The Instrument Used to Identify The Social Media Usage and Employee Productivity

Based on the number of study searched through SLR, major of the study has been identifying the social media usage among employee in organization. However, only few number of study has been measuring the employee productivity based on the impact of social media usage that are related in this study.

There are about 32 studies that discussed the social media usage in the working places and about 5 studies that have relate the usage of social media toward productivity or job performance among employee. While other studies have been focusing on job satisfaction, job involvement, behavioral attention, social and cognitive factors, self-evaluation of employee, turnover intention, return on investment, etc. among employee and the organization. There are about 27 studies that have been incorporated the social media usage with the focus they need to study as explained above. However, the scope of the study not really meet the interest toward the aim of this study in measuring the employee productivity. Thus, we will only focused to the study that are adopting the instrument from previous research in assessing the employee productivity in workplaces. The summarization of the instruments used in order to identify the social media usage with employee productivity will be presented in Table 2.

Table 2: Summarisation the instruments used by recent study

Instrument	Focus of the instrument	Specific to work productivity	Specific to social media usage	Specific to impact of social media with employee productivity	Applicable to this study
Facebook Intensity Scale	-Attitude and behavior toward the impact of online social network	x	√	x	x
	-Emotional individuals				
Facebook Intensity Scale	-Relationship of Fb with the formation of social capital	x	√	x	x
Facebook Intensity Scale	-Motivation of FB usage	x	√	√	√
Social Capital Scales	-connections of social network usage with social capital	x	√	√	√
Social Capital Scales	-usage of social network with productivity	√	√	√	√
Social Capital Scales	-attitudes and behavior of using FB toward social capital	x	√	x	x
Social Capital Scales	-health and behavioral toward social capital	√	x	x	x

Social Capital Scales	-group and network, trust and solidarity, collective action and cooperation, information and communication, empowerment and political action	x	√	x	x
Endicott Work Productivity Scales	-health problem toward employee productivity	√	x	x	x
Work Productivity Short Inventory	-prevalence of medical problem that influence work productivity	√	x	x	x
Work Productivity Activity Impairment	-impact of health problem or diseases on work productivity (absenteeism, time missed from work)	√	x	x	x
Work Productivity Scales	-productivity of organization based on factors connection and contact, knowledge sharing, learn new skills and stress relief	√	√	√	√
Job Performance Scales	-altruism, conscientiousness and task performance	√	√	√	√
Job Performance Scales	-effect of personal social media usage on task performance (attentional control, multi-task computer self-efficacy, happiness and technostress)	√	√	√	√

Job Performance Scales	-usage of social media on work performance (utilitarian and hedonic values, social media use for work, work performance)	√	√	√	√
------------------------	--	---	---	---	---

Based on Table 2, we can see there are various instrument developed and adopted by recent study in order to measure the employee productivity in working places. As we can see, there are many dimensions for measuring the social media usage and the employee productivity. Some of the study above has been focusing on measuring the employee productivity alone without relate to the impact of social media usage. While some other study has discussing usage of social media without identifying the employee productivity. The focus of the study identified are not really applicable to the objective of this study. But it can be build by combining all those instrument between social media usage with employee productivity in one instrument. The rest of study that applicable to this study has been highlighted the social media usage with employee productivity or job performance in different dimensions of the items developed. However, none of this instrument has been showing the real score to separate the employee productivity according to ranking from lowest productivity to the highest productivity. The scores shown for measuring productivity alone is not enough as we want to relate with social media usage rather than health problem.

Furthermore some of the instrument used do not really show how the measurement of the productivity among individual has been done in order to separate them according to productivity level such as Work Productivity Scales, Job Performance Scales and Social Capital Scales. Based on the platform used by previous research it can be concluded that majority of the researchers has been using the quantitative approaches through online survey. Then, based on the comparison of the instrument adopted, few number of study has been identifying the social media usage and employee productivity based on Table 2.

5.0 CONCLUSION

The study concluded that majority of the researcher has been conducting their study by using quantitative approach through self-administered and online survey among their respondent. Majority of them also has discussing the social media usage in their instrument that covered on the frequency of assessing the social media usage, the location and purposes of using social media and the devices used in organization to get access toward social media. There are various instrument used to measure the social media usage and employee productivity. The Facebook Intensity Scales were commonly used to assess the behavior and attitude toward the social network usage. While there are three instruments used to measure employee productivity or job performance namely Work Productivity Scales, Job Performance Scales and Social Capital Scales. However, only five study are really applicable in measuring the employee productivity toward the impact of social media used during working hours. There are limitations found in the instruments used as it has lacking in measuring the level of employee productivity. Thus, it give understanding and knowledge to future study in developing and designing new instruments based on the impact of social media usage toward employee productivity according to its level.

ACKNOWLEDGEMENT

We acknowledge the financial support from the Ministry of Higher Education, Malaysia and the Universiti Teknikal Malaysia, Melaka for their assistance in this research. All authors acknowledge the support of the grants PJP/2015/PBPI (5D)/S01460

REFERENCES

- Adkins, A. (2015, January 28). *Majority of U.S employees not engaged despite gains in 2014*. Retrieved from Gallup survey: <http://www.gallup.com/poll/181289/majority-employees-not-engaged-despite-gains-2014>.
- Ashraf, N. and Javed, T. (2014). Impact of social networking on employee performance. *Business Management and Strategy*, vol.5, no.2, p.139-150.
- Brooks, S. (2015). Does personal social media usage affect efficiency and well-being? *Computers in Human Behavior*, vol. 46, p.26-37.
- Choudhury, M.D. and Counts, S. (February 2013). Understanding affect in the workplace via social media. *Proceedings of the 2013 conference on computer supported cooperative work* (pp. 303-316). New York, USA: ACM.
- Chun, M. W. (2013). An exploration of gender differences in the use of social networking and knowledge management tools. *Journal of Information Technology Management*, vol.24, no.2, p.20-31.
- Das, B. and Sahoo, J.S. (2011). Social networking sites-A critical analysis of its impact on personal and social life. *International Journal of Business and Social Science*, vol.2, no.14, p.222-228.
- Ellison, N.B., Stenfield, C. and Lampe, C. (2007). The benefits of Facebook 'friends': social capital and college students use of online social network sites. *Journal of Computer-Mediated Communication*, vol.12, p.1143.
- Endicott, J. and Nee, J. (1997). Endicott work productivity scale (EWPS): a new measure to assess treatment effects. *Psychopharmacology Bulletin*, vol. 33, no.1, p.13-16.
- Ferreira, A. and Plessis, T. du (2009). Effect of online social networking on employee productivity. *Peer Reviewed Article*, vol.11, no.1, p.1-16.
- Francois, A. Hebbani, A. and Rintel, S. (2013). Facebook in the university workplace. *Media International Australia*, no.149, p.15-27.
- Grootaert, C., Narayan, D., Jones, V.N. and Woolcock, M. (2004). Measuring social capital: an integrated questionnaire. *The International Bank for Reconstruction and Development* (p. p.18). United States of America: The World Bank.
- Hakansson, P. and Witmer, H. (2015). Social media and trust-a systematic literature review. *Journal of Business and Economics*, vol.6, no.3, p.517-524.

- Hassan, H.A., Nevo, D. and Wade, M. (2015). Linking dimensions of social media use to job performance: The role of social capital. *Journal of Strategic Information Systems*, vol.24, p.65-89.
- Herlle, M. and Caneda, V.A. (2012). The impact of social media in the workplace. *Proceedings of the 11th Annual College of Education and GSN Research Conference*, (pp. 67-73). Miami, Florida International University.
- Jackson, T., Dawson, R. and Wilson, D. (2001). The cost of email interruption. *Journal of Systems and Information Technology*, vol.5, no.1, p.81-92.
- Kaupins, G. and Park, S. (2010). Legal and ethical issues associated with employee use of social networks. *Advances in Business Research*, vol.1, no.1, p.82-93.
- Kitchenham, B., Pearl Brereton O., Budgen D., Turner M., Bailey J. and Linkman S. (2009). systematic literature reviews in software engineering- a systematic literature review. *Information and Software Technology*, vol.51, no.1, p.7-15.
- Leftheriotis, I. and Giannakos, M..N. (2014). Using social media for work: losing your time or improving your work? *Computers in Human Behavior*, vol.31, p.134-142.
- Martensen, M., Borgmann, K. and Bick, M. (2011). The impact of social networking sites on the employer-employee relationship. *24th Bled eConference eFuture: Creating Solutions for the Individual, Organisations and Society*, (p. 54). Bled, Slovenia.
- Moqbel, M. (2012). *The effect of the use of social networking site in the workplace on job performance*. Texas: Doctor of Philosophy in International Business Administration.
- Murphy, H. (2013). *Social media use among employees: influence of organizational climate, job involvement and organizational commitment*. Clemson, South Carolina: Psychology Commons.
- Pitichat, T. (2013). Smartphones in the workplace: changing organizational behavior, transforming the future. *LUX: A Journal of Transdisciplinary Writing and Research from Claremont Graduate University*, vol.3, no.1, p.1-10.
- Razmerita, L., Kirchner, K. and Nabeth, T. (22 Nov 2013). Social media in organizations: leveraging personal and collective knowledge process. Frederiksberg, Denmark: *Journal of Organizational Computing and Electronic Commerce*.
- Seman, S. A. (2014). Organizational member use of social networking sites and work productivity. *International Journal of Innovation, Management and Technology*, vol.5, no.1, p.30-34.

- Siddique, T. (2015). Use of social networking sites at workplace in Bangladesh: Employees' perspective. *Global Disclosure of Economics and Business*, vol.4, no.2, p.197-204.
- Skeels, M.M. and Grudin, J. (2009). When social networks cross boundaries: A case study of workplace use of Facebook and LinkedIn. *Group 2009* (pp. 1-9). Florida, USA: ACM.
- Stein, L. M. (2012). *The benefit of distraction: the effect of social and non-social distractions on boredom and performance*. United States: Phd Dissertations in Rutgers The State University of New Jersey.
- Steinfeld, C., DiMicco, J.M., Ellison, N.B., Lampe, C. (2009). Bowling online: social networking and social capital within the organization. *C & T'* (pp. 245-254). Pennsylvania, USA: ACM.
- Watanabe, R.M., Yoshida, M. and Watanabe, T. (2010). Social network productivity in the use of SNS. *Journal of Knowledge Management*, vol.14, no.6, p.910-927.
- Wattal, S., Racherla, P. and Mandviwalla, M. (2009). Employee adoption of corporate blogs: a quantitative analysis. *Proceedings of the 42nd Hawaii International Conference on System Sciences* (pp. 1-10). Big Island, Hawaii: IEEE.
- Yeshambel, T., Belete, M. and Mulualem, Y. (2016). Impact of online social networking on employees productivity at work place in university of Gondar- A case study. *International Journal of Computer Applications*, vol.135, no.3, p.18-24.
- Yusoff, R.M., Ali, A.M. and Khan, A. (2014). Assessing reliability and validity of job performance scale among university teachers. *Journal Basic Applied Science Research*, vol.4, no.1, p.35-41.
- Zhang, W., Bansback, N., Boonen, A., Young, A., Singh, A., Anis, A.H. (2010). Validity of the work productivity and activity impairment questionnaire-general health version in patients with rheumatoid arthritis. *Arthritis Research and Therapy*, vol.12, no.5, p.1-7.
- Zoonen, W.V., Joost, W.M., Verhoeven, Wim, J.L., Elving. (2014). Understanding work-related social media use: an extension of theory of planned behavior. *International Journal of Management, Economics and Social Sciences*, vol.3, no.4, p.164-183.
- Zyl, A. S. (2009). The impact of social networking 2.0 on organisations. *The Electronic Library*, vol.27, no.6, p.906-918. *Applications*, vol.135, no.3, p.18-24.