HAL open science

Strategy Reformation? Materialization of Social Media in Telecom Industry

Shirumisha Kwayu, Banita Lal, Mumin Abubakre

To cite this version:

Shirumisha Kwayu, Banita Lal, Mumin Abubakre. Strategy Reformation? Materialization of Social Media in Telecom Industry. 15th Conference on e-Business, e-Services and e-Society (I3E), Sep 2016, Swansea, United Kingdom. pp.31-41, 10.1007/978-3-319-45234-0_3 . hal-01702154

HAL Id: hal-01702154

https://inria.hal.science/hal-01702154v1

Submitted on 6 Feb 2018

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Distributed under a Creative Commons Attribution 4.0 International License

Strategy Reformation? Materialization of social media in Telecom Industry

Shirumisha Kwayu, Banita Lal, Mumin Abubakre

PhD Student, Nottingham Trent University, Nottingham, UK
Shirumisha.kwayu2014@my.ntu.ac.uk
Senior lecturers, Nottingham Trent University, Nottingham, UK
{Banita.lal, Mumin.Abubakre}@ntu.ac.uk

Abstract
The pervasive use of social media is influencing change within organization. This paper uses sociomaterial lens with agential view to understand how social media is reforming strategy in Telecom organization through exploring changes brought by social media to organization, evaluating the changes with selection of strategic theories as well as providing insight on adoption of social media by telecom organizations. Following an interpretivist philosophy with exploratory purpose the study uses case study methodology employing secondary data and observation to explain how social media practices are shaping strategy at Vodacom. Social media is reforming strategy within telecom industry by exerting influence on organizational process for instance product development and marketing strategy

Keywords: Social media, Strategy, Sociomateriality

1 Introduction

There are significant changes within organizations as result of widespread use of social media application such as Facebook, Twitter, WhatsApp, Instagram, Snapchat, YouTube and Viber. For instance, social media has influenced marketing strategy of organizations (Gallaugher and Ransbotham 2010, Culnan, Mchugh and Zubillaga 2010), where the wide use of these social media applications has had implications on how organizations and customers interact with one another (Culnan, Mchugh and Zubillaga 2010). (Dabner 2012) defines social media as Internet and mobile-based applications that integrate technology, telecommunication and social interaction to facilitate creation and dissemination of words, videos images and audio. According to Mangold and Faulds (2009, p.358), "the 21st century is witnessing an explosion of Internet-based messages transmitted through these media". Despite the fact that it is becoming a major factor for consideration for both businesses and consumers, the impact of social media for organizations is not yet clearly identified. Thus, it is difficult to determine the extent to which the transformation-taking place in organizations results from so-

cial media (Treem and Leonardi 2012). For the purpose of this study, focus of this paper is on the telecommunications sector in Tanzania with the following objectives:

- To Investigate what changes social media brings into an organization
- To evaluate the selection of a theory that will provide a specific research angle to study social media within the Tanzanian telecommunications sector
- To understand social media adoption in Tanzania

2 Literature review

2.1 Sociomateriality

Sociomateriality, which is a new way of investigating and theorizing information system (IS) phenomena within organization and society at large, is appealing to Information System (IS) scholars. It has stirred an interesting and enriched discussion on how it could be used to study IS phenomena and its implication on studies undertaking this perspective. Significantly sociomateriality has extended and challenged the prevailing knowledge among IS scholars and practitioners on the ontological relationship between technological and social (Kautz and Jensen 2013). (Orlikowski 2007) defines sociomateriality as a recursive intertwining of human and technology in practice. (Orlikowski 2007) further argues that for years IS scholars have been struggling to figure out the recursive intertwining of human and technology in practice: as means of moving from the usual framing of social and material as a separate factors even when they interact. (Orlikowski 2007) then proposes to view organization practices as sociomaterial - an approach that views an inherent inseparability between technical and social. Thus, given the high level of human involvement and dependency of technology within social media, the sociomateriality approach appears to be a suitable angle from which to investigate this phenomenon.

Using the sociomaterial perspective, this paper uses the agential realism as theoretical foundation. Agential realism views actors and objects as self-contained entities that influence each other to composite and shifting assemblages (Barad 2003). Thus, with agential realism actor (social) and objects (material) are relational and ontological. Hence sociomaterial view fits in agential realism belief that social and material are inherently inseparable. Holding to this view, reality is not given but performed through relations in practice. Further, this paper has decided to adopt sociomaterial perspective as (Scott and Orlikowski 2014) argue that it's a more sensible approach for studying technology such as social media to understand a reality that is dynamic, multiple and entangled. Sociomaterial perspective is going to enrich the analysis in this by examining the relationship between social media practice (usage) and what happens in strategy within organization.

Currently, there are two studies on social media that have used sociomaterial lens footed on agential realism, both studies are done by same scholars (Scott and Orlikowski 2012, Scott and Orlikowski 2014) and are on the travel sector. The first study explored the materialization of social media in the travel sector and the other one performing anonymity through social media. Starting with the latter, they explored en-

tanglement in practice by comparing the production of anonymity between the institutionalized accreditation scheme offered by the AA and an online social media website hosted by TripAdvisor. The use of sociomateriality aided the focus from perceiving technology as a distinct object influencing human being to examining how actions and relations are materially constituted in practice. (Scott and Orlikowski 2014) perceive social media as interesting area to study sociomateriality in practice as they are characterized with active engagement and online contribution producing novel form of knowledge that provides deep entanglement of meaning and materiality. Sociomateriality centers the empirical interest on how and when specific characteristics and consequences of practice are produced through particular material enactment. In simple terms, material enactments is an emphasis on practices that draw focus on how everyday activities constitute reality, which supports the analysis of emergence, dynamism and multiplicity of organization context. The study of Orlikowski using sociomateriality was able to challenge the literature that viewed anonymity as single attribute of some agent or system to find that anonymity is multiple dynamic and sociomaterial as its not fixed or binary in state (Scott and Orlikowski 2014).

The former study of (Scott and Orlikowski 2012) explored the moral and strategic implication of social media using sociomaterial perspective to examine online rating and ranking mechanism by analyzing how their performance reconfigures relations of accountability. Their study focused on the use of social media in particular TripAdvisor. The relationship between online rating and ranking mechanism with social media is the boost provided by social media. The power charging of online rating and ranking perform a redistribution of accountability. The study was done with a case of Village Inn hotel, which is located in remote part of England. TripAdvisor transformed the business in fundamental ways for instance; sales increased nine fold, it instituted a weekly practice of reflecting customer reviews. It also changed the marketing practice from traditional ways like magazines to online and social platform like TripAdvisor.

This brief review highlights power of sociomateriality as a theoretical foundation of exploring the complexity of social media and its implication in organization. It also shows the importance of focusing on practice rather than on distinct technology in understanding the impact of technology which can be multiple, dynamic and complex to organization. Further, despite the theoretical power of sociomateriality that footed on agential realism there is inadequate of social media literature conducted by this theory, as it is evident from the two studies explained above. Thus the use of this method will contribute to our understanding of the use of social media in organization as well as adding knowledge of sociomaterial perspective in IS.

3 Methodology

This paper follows an interpretivist philosophy, which believes there are many interpretation of reality and these interpretations are part of the scientific knowledge(Hammersley 1993). Following the interpretivist philosophy the paper is exploratory, as (Saunders, Lewis and Thornhill 2009) suggest it provides a valuable means of finding out what's happening, to seek new insights, to ask questions and to

assess phenomena in new light. The paper intends to give insight on the possible effects of social media on strategy formation within organization.

The paper adopts a case study method as it intends to provide in depth knowledge on a real life phenomenon (Yin 2013). It uses Vodacom Tanzania as a case organization. Vodacom is a leading Telecom company in Tanzania. It owns 35% of subscription market share as of September 2015 (TCRA, 2016). Vodacom is a representative sample of Tanzanian telecom organization. The rationale for choosing case method is its ability to explain a decision(s), why they were taken and the way they were implemented. Furthermore, this paper makes use of secondary data and observation of social media practices to explain the reformation of strategy that (Mutch 2008) explains as concerned with external face of organization and how it translates into imperative for internal activities. Thus the paper intends to explain the external face of telecom organization in Tanzania using the case of Vodacom by linking it with social media practices.

4 Analysis

The prolific use of social media in the world is also experienced in Tanzania (Pfeiffer, et al. 2014). Most of social media users in Tanzania use them for communication purposes. The access to social media in Tanzania is through mobile phones. Thus use of social media in Tanzania has direct effects on telecom industry. These effects are in two ways: 1) Social media substitutes the generic service provided by telecommunication industry by enabling text and verbal communication; 2) Telecommunication companies are using social media to advance their business process for instance they provide Internet to majority of social media user in Tanzania, and in addition they use social media platform for marketing and maintaining customer relations. These two factors make the relationship between social media use and telecommunication organizations an interesting area to explore especially in the context of Tanzania. Without telecommunication companies in Tanzania, majority of social media users cannot access the Internet with the current state of infrastructure. Profoundly, the telecom companies continue to support the use of social media although it substitutes their generic service. The relationship between social media and telecom companies that seems to influence the development of each other creates the rationale to explore and understand how social media impacts the telecom industry in Tanzania and how telecom industry perceives strategy on social media.

Internet user in Tanzania have increased tremendously in the recent years, they have increased from 5 million in 2010 to above 11 million in 2014 (TCRA, 2015). The increase in Internet usage attributed by the increase of mobile service that has increased from 20 million in 2010 to 34 million in 2014 whereas there has been a decline in fixed phone service from 174,511 to 142,950 (TCRA, 2015). It is arguable that the increase use of Internet service is associated with the use of social media because most of social media users in Tanzania access them through their mobile. The increasing use of social media has exerted pressure on the telecom industry. Strategic literature suggests that changes in external environment have great influence on internal

(operational) process of organization(Ben-Menahem, et al. 2013). The data above not only shows a shift in technological environment but also on social practice, which portrays a change in business environment for telecom organization. For instance using (Henderson and Venkatraman 1989) strategic alignment model, which aligns between external and internal environment of organization, motivates us to understand how the adoption of social media by the public in Tanzania is reshaping strategy within organization in this case Telecom Company. The analysis below examines how strategy is reformed with the influence of social media by exploring products of telecom industry and how they market their products.

4.1 Product/ service strategy

(Belasen and Rufer 2013) argues that new products is the lifeblood for firms that hope to remain competitive in high-technology industries such as telecommunication because they are faced with fast shrinking product life cycles thus developing new products that match with market needs is their secret for survival. (Belasen and Rufer 2013) research highlights the sensitivity of telecom organization to changes that occur in the market. This means that the product strategy of telecom industry reacts to changes that occur within the business environment. Thus it is highly expected the emergency of social media to influence the product strategy of the telecom organization.

Exploring the product offered by Vodacom, a significant influence of social media can be noted. First, they have reformed their packages to attract social media user. For instance, on their prepaid offer they have Facebook SMS, a service that allows individual to receive their Facebook notification on their phone (Vodacom, 2016). Another example from Vodacom that shows that social media has enormous influence on their product strategy is on their Value Added Services where several of the services are social media for instance SIMU.tv is YouTube channel that is dedicated to provide video clips and live broadcasts from several TV channels in the country. Furthermore the influence of social media in reforming product strategy of Vodacom cannot be overstated as some of their product such as Rafiki Chat are in-company initiated social media application that intend to lure their customers with taste of social media offered by external organization such as Facebook, Alphabet (Google+) Inc. There are other several products that can show the influence of social media on Vodacom new products.

In addition, there is an indirect influence of social media on Vodacom's products. There is no social media without Internet. Internet has become a dear product of Vodacom. For instance on their *Cheka Bombastik* bundles they sell minutes and text but they also include internet (Data) that is significant product in the bundle the table below is the *Cheka Bombastic* package:

Table 1. Cheka Bombastik

All network Bundles					
Duration	**Price in**	**Minutes**	**SMS**	**Data**	**Validity**

	Tsh.			(MB)	
Daily	499	6	40	2	Midnight
	649	10	100	6	24Hrs
	999	19	200	16	24Hrs
Weekly	1,999	22	200	60	7 Days
	4,999	70	500	120	7 Days
	9,999	180	1,000	120	7 Days
Monthly	9,999	125	1,000	500	30 Days
	14,999	200	1,500	500	30 Days
	19,999	330	2,000	500	30 Days
	29,999	550	3,000	500	30 Days
	49,999	1,000	10,000	500	30 Days

Source: Vodacom Tanzania, 2016

Social media is a significant driver for mobile Internet consumption among other uses. In Tanzania with 11 million individual Internet users (TCRA, 2015), 2.7 million use Facebook (Internet World Stats, 2016). This is a significant amount as it accounts for a quarter of Internet usage. Thus social media usage has indirect influence on product strategy of Vodacom. For instance, on the monthly bundle the 500 MB of data service does not increase with price, this cap forces user to buy extra data service when already consumed the allowance thus the data services are included in the bundle to sustain the minutes and SMS service. If the cap on data service is not imposed it means that people will have more power to substitute the generic product of telecom that is SMS and the Minutes. Moreover competitors of Vodacom such as Tigo have exclusive data bundles that allow free WhatsApp within the *Minikabang* or *Tigo Xtreme bundles* (Tigo, 2016). The repacking of bundles is evidence of how use of social media is indirectly influencing product strategy within telecom industry.

There is probability that social media has influenced Vodacom to diversify some of their product services. This is difficult to measure. Since diversification is moving away from associated service, the methodology we are using cannot validate this claim but it raises a question whether there is any correlation between the diversification of Vodacom services or it is just an assumption. Vodacom has diversified to financial services such as *M-Pesa*, which helps to transfer, receive and borrow money, it has also moved to entertainment industry with music streaming services like *Mkito Plus*. This diversification could potentially be linked with social media usage. Consciously or unconsciously Vodacom may have diversified to escape or create resilience of the negative effects of social media to the company. The service such as *M-Pesa*, *M-Pawa* (Saving service) and *M-Kopa* (borrowing service) helps to retain customers, thus if the competition exerted by social media in different dynamics challenges Vodacom, Vodacom could resist the effects social media. For instance, if other telecom companies decide to reduce the price of Internet and influence a lot of customer to move, the M-Pawa service could still retain the customers. This scenario could be possible considering Tanzania is a low income country with only US Dollar 920 Gross National Income (GNI) per capita (World Bank, 2016) hence having customers who are extremely sensitive to price change. Thus the diversification to other

products can be a strategy of Vodacom to reduce the negative power of social media user to influence the performance of organization.

Exploring the products development at Vodacom with sociomaterial lens assists us in understanding how strategy is reformed in Tanzania telecom industry. Sociomaterial is interested with daily practice (Cecez-Kecmanovic, et al. 2014), looking at the daily use of social media by Tanzania public influences the product development in telecom industry, likewise telecom industry influences the use of social media. A user buys a bundle in order to access social media, the user can only use the bundle and finish the allowance or the allowance expires with time, the bundle controls the extent of using social media but also give the organization opportunity to manipulate social media usage for instance allowing a free WhatsApp while limiting other social media application. Likewise, the use of social media by the public goes beyond as telecom companies are learning and developing products such as Facebook SMS and Simu TV. Thus it is this relation in practice that influences reality which in this case is telecoms strategy of developing and delivering this products to social media user in Tanzania. Therefore, this paper argues that the existence of social media related products offered by telecom organizations provide evidence of how social media has influenced strategy. The reality of these products is not given but exists as a result of social media usage. This is in line with the Agential philosophy that reality is not given but enacted through practice (Scott and Orlikowski 2013)

4.2 Marketing Strategy

Literature (Gallaugher and Ransbotham 2010, Culnan, Mchugh and Zubillaga 2010) indicates how social media has influenced marketing strategy of organizations. Many organization use social media for marketing related purposes. Social media use in Tanzania has influenced Vodacom's marketing strategy to a significant level. A brief overview of Facebook pages statistics in Tanzania highlights the influence of social media on Vodacom marketing strategy.

Table 2. Facebook statistic Page

No	Page name	Total fans	Ratings	*Descriptions*	*Comments*
1	JamiiForums	1,318,938	10	*Social media Forum*	*Vodacom advertises on their forum*
2	Tigo Tanzania	1,085,577	8	*Telecommunication company*	*Vodacom's competitor*
3	Diamond Platnumz	1,071,953	8	*Artist/Musician*	*He's Vodacom's Brand ambassador*
4	Bongo Movies	924,685	N/A	*Tanzania movie industry*	

5	Airtel Tanzania	858,537	7	*Telecommunication company*	*Vodacom's competitor*
6	East African television (EATV)	803,486	10	*TV station*	
7	Vodacom Tanzania	735,128	8	*Telecommunication company*	
8	Fastjet	703,051	0	*Airline company*	
9	Midcom East Africa	499,235	7	*Telecommunication company*	*Vodacom's competitor*
10	Lady Jaydee	499,230	0	*Artist/Musician*	

Source; Social Baker, 2016

The above table shows the top ten Facebook pages in Tanzania with highest fans. The telecom industry dominates the list. This shows how social media has become a competition arena for telecom organizations. Furthermore, visiting the Facebook pages of this telecom industry, the companies use them to promote their service, to engage customers and also to respond to some of the queries of customers. The domination of the list by Telecom industry is by itself an explanation why social media is adopted by telecom organization in Tanzania. (Braojos-Gomez, Benitez-Amado and Llorens-Montes 2015) using a social competitor theory found that firms adopted and developed their social media competence once their competitors have done so. Thus the competition exhibited in the table above is an additional evidence to explain adoption and validate the social competitor theory. Also domination of telecom industry reveals that social media practice is key strategy within the telecom industry.

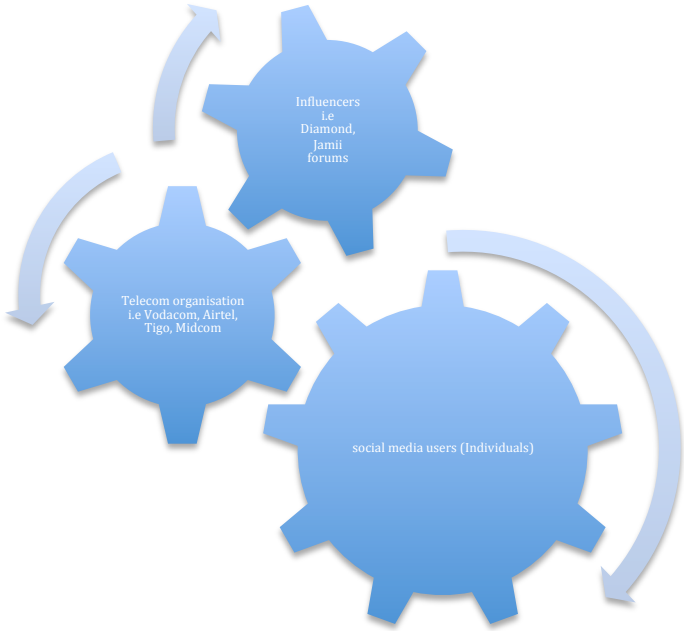
In addition, the table above signifies how marketing decision of telecom organization are influenced by social media usage. JamiiForums is a social platform and Vodacom advertises on the platform, in the list JamiiForums appears to attract a lot of social media users and thus attracting Vodacom to capitalize on their popularity to influence their user. Likewise, Vodacom hired Diamond Platnumz as their brand ambassador. The selection of Diamond Platnumz as their brand ambassador may have been influenced among other factors by the number of social media fans he has on his page. Thus, this shows that social media usage continues to influence the marketing strategy of Vodacom.

The selection of Diamond and JamiiForums is a strategic practice of Vodacom to influence social media user. (Kumar and Mirchandani 2012) suggests that identifying influential individual who can spread organization message is important for gaining success in social media. Organization can use data to identify influential individual. In the above case we see Vodacom practice of identifying individual using the Facebook statistics. While presenting Diamond to the press conference as a Vodacom brand ambassador, Ian Ferrao, Vodacom's Managing director acknowledged the power of social media in influencing people, stating, '*just as an example we going to think*

power of the internet and the power of social media and how that is creating use of this lads, diamond and Vodacom are both committed to one another we going to work together on this journey' (Vodacom Press, 2016).

The above table can be demonstrated on the diagram below where we see an intra action of activities that enact (reforms) strategy at telecom organizations in Tanzania. The bigger wheel represents the 2.7 million Facebook users in Tanzania, the other wheel represents Telecom organizations and the last wheel represents the influencer. Each of the wheels has its own practice but the practice of one group influences another group. Thus the relationship of these actors they reform strategy. For instance, a social media user can directly contact the organization and likewise the organizations can directly contact an individual user. However, there is a group of people that the organization cannot contact directly but can do so through influencers such as Diamond who can influence on behalf of the organization. It is through this relationship that the telecom organization is strategically advancing its marketing objectives.

Fig. 1. Facebook Intra-action



5 Conclusion

Adopting a sociomaterial lens in this paper has demonstrated the changes social media brought in telecom organization. With a framework of strategic theories the paper explained strategic practices which are influenced by social media as well as providing insight on the adoption and use of social media by telecom organization.

First, sociomaterial lens by providing focus on practice enables to correlate public usage of social media and organizational practices with each influencing the other. For instance, the public follows the influencer (for example Diamond) and the organization (Vodacom) uses influencer to reach the public. In other word the public is influencing the choice and the organization is responding rational (strategic) to the public. Second, with aid of theories like strategic alignment the paper was able to explain how changes in external environment are influencing internal (operational) practices of organization. For instance how the pervasive use of social media is influencing product development in telecom industry such as free WhatsApp, Facebook SMS and *Cheka Bombastick*. Lastly, with aid of social competitor theory, the study could interpret the intensity and dominance of telecom industry in the Facebook statistics page. Sociomaterial with agential perspective demonstrates how reality is performed through practice (Kautz and Jensen 2013). This lens provides a basis of explaining how strategy in Tanzania telecom organization is reformed through social media practices and how telecom organization conceive their strategy with social media in mind, the evidence of this can be obtained in product development and marketing processes of Vodacom.

6 Reference

1. Barad, K., 2003. Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter. *Signs,* 28 (3), 801-831.
2. Belasen, A. and Rufer, R., 2013. Innovation Communication and Inter-Functional Collaboration: A View from the Competing Values Framework for Corporate Communication. *In:* Innovation Communication and Inter-Functional Collaboration: A View from the Competing Values Framework for Corporate Communication. *Strategy and Communication for Innovation.* Springer, 2013, pp. 227-240.
3. Ben-Menahem, S.M., et al., 2013. Strategic renewal over time: the enabling role of potential absorptive capacity in aligning internal and external rates of change. *Long Range Planning,* 46 (3), 216-235.
4. Braojos-Gomez, J., Benitez-Amado, J. and Llorens-Montes, F.J., 2015. How do small firms learn to develop a social media competence? *International Journal of Information Management,* 35 (4), 443-458.
5. Cecez-Kecmanovic, D., et al., 2014. THE SOCIOMATERIALITY OF INFORMATION SYSTEMS: CURRENT STATUS, FUTURE DIRECTIONS. *Mis Quarterly; MIS Q.,* 38 (3), 809-830.
6. Culnan, M., Mchugh, P. and Zubillaga, J., 2010. HOW LARGE U.S. COMPANIES CAN USE TWITTER AND OTHER SOCIAL MEDIA TO GAIN BUSINESS VALUE. *Mis Quarterly Executive; MIS Q.Exec.,* 9 (4), 243-259.
7. Dabner, N., 2012. 'Breaking Ground' in the use of social media: A case study of a university earthquake response to inform educational design with Facebook. *The Internet and Higher Education,* 15 (1), 69-78.
8. Gallaugher, J. and Ransbotham, S., 2010. SOCIAL MEDIA AND CUSTOMER DIALOG MANAGEMENT AT STARBUCKS. *Mis Quarterly Executive; MIS Q.Exec.,* 9 (4), 197-212.
9. Hammersley, M., 1993. *Social research: philosophy, politics and practice.* Sage.

10. Henderson, J.C. and Venkatraman, N., 1989. Strategic alignment: a process model for integrating information technology and business stategies.
11. Kautz, K. and Jensen, T.B., 2013. Sociomateriality at the royal court of IS: A jester's monologue. *Information and Organization,* 23 (1), 15-27.
12. Kumar, V. and Mirchandani, R., 2012. Increasing the ROI of Social Media Marketing. *Mit Sloan Management Review; MIT Sloan Manage.Rev.,* 54 (1), 55-+.
13. Mutch, A., 2008. *Managing information and knowledge in organizations: a literacy approach.* Routledge.
14. Orlikowski, W.J., 2007. Sociomaterial practices: Exploring technology at work. *Organization Studies,* 28 (9), 1435-1448.
15. Pfeiffer, C., et al., 2014. The use of social media among adolescents in Dar es Salaam and Mtwara, Tanzania. *Reproductive Health Matters,* 22 (43), 178-186.
16. Saunders, M., Lewis, P. and Thornhill, A., 2009. Research methods for business students.
17. Scott, S.V. and Orlikowski, W.J., 2014. Entanglements in practice: performing anonymity through social media.
18. Scott, S.V. and Orlikowski, W.J., 2013. Sociomateriality - taking the wrong turning? A response to Mutch. *Information and Organization,* 23 (2), 77-80.
19. Scott, S.V. and Orlikowski, W.J., 2012. Reconfiguring relations of accountability: Materialization of social media in the travel sector. *Accounting, Organizations and Society,* 37 (1), 26-40.
20. Treem, J.W. and Leonardi, P.M., 2012. Social media use in organizations: Exploring the affordances of visibility, editability, persistence, and association. *Communication Yearbook,* 36, 143-189.
21. Yin, R.K., 2013. *Case study research: Design and methods.* Sage publications.
22.
23. Internet World Stats (2016) http://www.internetworldstats.com/stats1.htm [last accessed 17/2/2016]
24. Social Bakers (2016) http://www.socialbakers.com/statistics/facebook/pages/total/tanzania/ [last accessed 17/2/2016]
25. TCRA (2015) Tanzania Communication regulatory Authority http://www.tcra.go.tz/images/documents/telecommunication/telcomStatsSept15.pdf [last accessed 17/2/2016]
26. Tigo (2016) http://www.tigo.co.tz/sw/personal/voice-sms/hot-offers [last accessed 17/2/2016]
27. Vodacom (2016) https://www.vodacom.co.tz [Last accessed 17/2/216]
28. Vodacom Press (2016) https://www.youtube.com/watch?v=j6fLJ453CGI (minute 3:40- 4) [Last accessed 12/6/2016]
29. World Bank (2016) http://data.worldbank.org/country/tanzania [last accessed 12/6/2016]
30.