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Maxim Wolf

Birkbeck College, mwolf03@mail.bbk.ac.uk

Julian Sims

Birkbeck College, j.sims@bbk.ac.uk

Huadong Yang

University of Liverpool, huadong.yang@liverpool.ac.uk

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LET'S TALK – SOCIAL MEDIA USE IN MANAGEMENT – EMPLOYEE DIALOGUE

M. Wolf (mwolf03@mail.bbk.ac.uk), J. Sims and H. Yang

Abstract

This paper analyses social media use in the setting of Human Resource Management. A comparative analysis technique: crisp set Qualitative Comparative Analysis (csQCA) is used to analyse and juxtapose four qualitative case studies to identify conditions which lead to creation of dialogue between management and employees on social media. Value Co-Creation theory and HRM theory is then used to explain the findings which suggest that strategic approach to social media needs to be combined with bottom-up use in order to successfully create dialogue. This findings are relevant for current theory, practice and further research. In addition, this paper provides an analysis of challenges when using csQCA in Information Systems research.

Keywords: social media, case study, crisp set qualitative comparative analysis, strategic HRM

1 Introduction

Social media have been a focus of research in a variety of areas, including marketing, human resource management, political science, technology and communications (Hanna, Rohm, & Crittenden, 2011; Howard & Parks, 2012; Huang, Baptista, & Galliers, 2013; Leonardi & Barley, 2010; Leonardi, Huysman, & Steinfeld, 2013). This paper utilizes theories from Human Resource Management perspective (Bowen & Ostroff, 2004), Value Co-Creation (Prahalad & Ramaswamy, 2004), and Communication streams (Huang et al., 2013) to investigate how organisations can create dialogue between managers and employees on social media. Crisp Set Qualitative Comparative Analysis (csQCA) technique (Rihoux & Ragin, 2009) is used to analyse and juxtapose four qualitative case studies to identify conditions which lead to creation of dialogue between employers and employees on social media. The paper concludes with placing the findings within existing theoretical frameworks, suggestions for the practitioners and outlook for further research.

2 Literature overview

Many of the today's internet-based technologies are built around the ideas of Web 2.0: openness, sharing and collaboration (DesAutels, 2011; Kaplan & Haenlein, 2010). Advances in web-, programming-, and computing-technologies enable and

encourage creation of more interactive and engaging software (DesAutels, 2011). Social media applications (including social networking sites, blogs, review sites, wikis, etc.) are a sub-set of modern web-based applications which are characterised by their support and encouragement of multi-way communication, provision of tools for simple and instantaneous content creation, and the ability for the user to combine several web-application and technologies into unique, valuable application based on individual needs of each specific user (Leonardi et al., 2013). Further, the ability to perform different activities, namely communicate, manage and visualize relationships, and create and edit content, in a single place combined with the fact that this information is stored and kept (semi-) publicly accessible over a long period of time is seen as a key feature of social media.

Participative behaviour and engagement from a broad community of contributors allowed a number of products to establish themselves in the world: Linux operation system, the apache web-server (<http://www.apache.org>) and MySQL (<http://www.mysql.com/about/>) – are tools created by the community for the community, Wikipedia (<http://www.wikipedia.org>) is another example of content co-creation project. Commercial organisations are trying to engage with their suppliers and consumers to create value (Gebauer, Johnson, & Enquist, 2010; Jussila, Kärkkäinen, & Leino, 2011), to innovate (Martini, Massa, & Testa, 2014), to engage with workforce (Tsai & Yang, 2010), and to enhance brand value (Nandan, 2005).

The “engagement” on social media takes different forms: content sharing (e.g. on YouTube), content co-creation (e.g. Wikipedia), collaborative innovation and product design (e.g. the apache webserver). This paper investigates the conditions under which engagement on social media happens within organisations.

Whilst individual users can generate value for themselves through the use of Web 2.0 technologies – for example by combining 4G internet connection in their mobile phone with GPS capabilities and checking into Facebook when arriving in a new town, to get travel tips from TripAdvisor and Foursquare (social media applications that allow users to review hotels, restaurants etc., and to leave “tips” for other users on places to go out, things to do and to see), this paper focuses on how organisation can use social media to generate value in the context of Human Resource Management. More specifically, the study is concerned with the question of how organisations use social media to create dialogue.

2.1 HRM as setting

This paper is focusing on one specific area of organisational activity namely Human Resource Management. There are several models to explain and frame HRM from variety of perspectives: focusing on HR practices, applying the resource based view to HRM, or identifying implementations of sets of HR practices (Guest, 2011). The common denominator of these approaches is the search for the source of a competitive advantage (Barney, 1991; Guest, 2011; Miles & Muuka, 2011; Wright, Dunford, & Snell, 2001). This paper theorises HRM as a process of communications between the “organisation” (i.e. management) and the employees, as suggested by (Bowen & Ostroff, 2004). HRM as a communication system negotiates expected employees behaviours and contributions and corresponding sets of psychological and economic benefits offered in exchange (Edwards, 2010; Mosley, 2007). Bowen and Ostroff (2004) define a “strong communication system” as a distinctive, consistent and high in consensus.

In a communication system messages are sent by the sender (rhetor) and are interpreted by the recipient (audience) (Huang et al., 2013; Kent & Taylor, 1998). A communication system gains its strength from facilitation and encouragement of a *symmetric two-way communication* (Kent & Taylor, 1998) – allowing the sender and the recipient to switch roles and providing level access to communication media. This paper defines the creation of such symmetric two-way communication as a positive outcome and investigates organisational settings in which two-way communication (read “dialogue”) takes place.

2.2 Value co-creation and dialogue

Web 2.0 technologies appear to open new sources for value creation (Kaplan & Haenlein, 2010; Kietzmann, Hermkens, McCarthy, & Silvestre, 2011) and to provide potential for involvement of new audiences in the process of value (co-) creation (Laroche, Habibi, Richard, & Sankaranarayanan, 2012). Prahalad and Ramaswamy (2004) use the DART-framework to explain co-creation of value through Dialogic communication, Transparent Access to information by all parties, and Risk-benefits balance (added value for all participants).

Dialogue is a conversation in which a power balance between all participating parties is maintained (Kent & Taylor, 1998). Dialogue, according to Habermas’ ideal speech situation, requires all parties to be true to themselves, have the same opportunity to

participate and equal power to influence others, and allows every statement to be questioned and debated (Leeper, 1996).

Access to social media is fairly unregulated and egalitarian – firms and individuals often have access to the same set of technologies (Boyd & Ellison, 2008), however the organisations (as well as individuals) can often control access to “their” pages; platform providers further limit access through terms and conditions of service (Stein, 2013). In addition to that, not all social networks are equal, and in case of enterprise social networking sites (SNS) the organisation has a far higher level of access control (Leonardi et al., 2013).

The balance between *Risk and Benefits* is closely linked to the balance of power and dialogic communication – the ability to “influence” products and brands is valued by consumers (Hanna et al., 2011), and at the same time presents organizations with the risk of being “relegated to the side-lines” (Kaplan & Haenlein, 2010, p. 60). An engaged and continuous conversation between all participants helps to maintain the risk/benefit balance.

Transparency is related to access and dialogue. Allowing transparent access to information levels the knowledge/power field and contributes to dialogue. Positive effects such as leaky pipes when users for whom the content was not initially intended become aware of it and discover valuable information are another result of increased transparency (Leonardi et al., 2013).

The better performing organisations within the DART-framework have (1) a higher level of dialogue and access, (2) higher transparency through ongoing open exchange and (3) few exclusions and more active participants from all parties.

3 Social Media as Platform for Dialogue – comparative case study

The research presented in this paper has been carried out in three phases. The first phase involved two exploratory case studies which were used to identify who is using social media in organisations (Wolf, Sims, & Yang, 2014) and so to define potential participants in the management-employee dialogue; The second stage looked into engagement levels of 39 organisations which all participated in a closed social media platform for the London 2012 Olympic Games and so were known to have some degree of exposure to using social media in the context of recruitment, attraction and selection. The activities of these organisation on public social media sites such as

LinkedIn, Facebook, twitter and YouTube were investigated and a taxonomy of employers based on the engagement levels of each organisation and its employees was created (Wolf, Sims, & Yang, 2015). Based on the level of engagement / not engagement of employers and employees, all thirty nine potential organisations were placed into one of the four categories: (1) engaged organisation (employees and employers are engaged), (2) engaged employees (employees engage, employer does not), (3) disengaged organisation (neither employees, nor the employer engages), and (4) engaged employer (employer engaged, employees do not) as depicted in Figure 1 - Social Media Engagement: Selection Matrix.

		Company engagement	
		More	Less
Employee engagement	More	Firm4 Firm10 Firm5	Firm3 Firm6 Firm1
	less	Firm9	Firm7 Firm2

Figure 1 - Social Media Engagement: Selection Matrix

From the list of initial thirty nine firms, ten firms displaying most prominent engagement / disengagement levels (being closest to the corners of the Matrix) were contacted and asked for interviews and participation in case studies. Unfortunately the response was unimpressive, with only three firms responding, so that the research was later expanded to include all of the initial firms. A total of nine companies responded and to-date two full case studies from the second and fourth quadrant are completed and fully analysed, and two further studies in organisations from the first quadrant are ongoing and partial data has been analysed. Open interviews from each case study have been coded using NVivo software package and then compared using crisp set qualitative comparative analysis.

The analysis of the cases is routed in the idea that by comparing similar cases with different outcomes and different cases with similar outcomes, the conditions under which certain outcomes occur could be identified. The foundations of this method are

routed in J.S. Mill's "canons" (cited in Rihoux & Ragin, 2009). Mill's method of agreement states that if two instances of the same phenomenon have only one circumstance in common, that circumstance in which both cases "agree" is the cause or the effect of the phenomenon. Similarly the method of difference looks at two cases which are similar in all but one circumstance. If the phenomenon occurs in only one of the instances, then the circumstance in which the instances "disagree" is the effect or the indispensable part of the cause (ibid p. 2). The method of qualitative comparative analysis used in this study is closely based on the crisp set qualitative comparative analysis (csQCA) as developed by Rihoux and Ragin (2009) and the following brief description is based entirely on their work.

3.1 Qualitative Comparative Analysis: csQCA

The csQCA method involves six distinct steps which ultimately lead to identification of necessary and sufficient conditions for the phenomenon to occur. A combination of conditions is referred to as "configuration", and conditions are coded in a binary format: 1 for present and 0 for absent. The identification of necessary and sufficient conditions follows Boolean logic and the symbols from Boolean logic representing the AND (*) and OR (+) operands are used to formally define and describe configurations and their outcomes. The arrow symbol (\rightarrow) is used to denote the expression "then". Finally the "not sign" denotes negation (i.e. " $\neg A$ " means "not A"). For example the statement "When A and Not B then C" is coded as $A * \neg B \rightarrow C$.

A necessary condition is a condition which must be satisfied for the phenomenon to occur, but the presence of that condition alone is not enough, so that one or more other conditions must be satisfied too. On the other hand, a sufficient condition (or set of conditions) is a condition under which the phenomenon occurs independent of presence or absence of any other condition.

The first step of the analysis is the identification of all possible conditions which describe the circumstances under which a phenomenon does (not) occur. In a second step a "truth table" is constructed, which lists all observed configurations and the outcomes in a single table. The outcome in this case is also coded as a binary 0/1 representing "not observed" (or negative) outcome or "observed" (or positive) outcome respectively. Contradictory configurations (when cases with same configuration led to different outcomes) are then resolved in the third step by dropping the cases, adding more conditions or replacing some of the conditions. The

forth step involves “Boolean minimization” – a process whereby conditions which are logically irrelevant (e.g. positive and negative outcomes are observable when a condition both is present and absent) are removed, and a more “compact” formula describing situations under which the phenomenon occurs is obtained. In the fifth step “logical remainders” – theoretically possible configurations which were not present in the empirical data are added to the truth table and final descriptions of configurations which lead to a “positive” or a “negative” outcome are obtained. Finally, the data is analysed and interpreted based on existing theories, frameworks and the research question. Each of these steps is addressed in detail in the analysis section of this paper.

3.2 Data collection and case description

Initial data have been collected in four case studies. All case studies were conducted within large UK organizations (following the definitions of a “large” organisation as one employing more than 500 people and with a turn-over of EUR 50 Million (OECD, 2005)). Each case study involved (1) data collection from public websites (the corporate website, corporate career’s site, LinkedIn, twitter, Facebook and YouTube) and (2) a series of 4-6 interviews with employees and managers. Two of the case studies are completed at the time of writing, in two other cases interviews are still being carried out and analysed at the time of writing. This paper focuses on comparative analysis of the case studies and only brief descriptions of qualitative data and the qualitative analysis process of coding of individual interviews, merged coding within-cases and cross-case coding and theme-identification is provided.

The four cases represent three quadrants of the selection matrix (Figure 1). The first quadrant (social enterprise where both the employer and employee are engaged) is represented by UKSoftware and UKConsulting; the second quadrant (engaged employees) is represented by UKBank; the fourth quadrant (engaged employer) is represented by UKOutsourcing; When referring to each firm in tables and formulae later in this paper, each is abbreviated to first three letters i.e. UKBank is coded as UKB and so on. The descriptions are provided in simple alphabetical order.

3.2.1 UKBank

Internationally operating financial services company with headquarters in London has operations in over 100 countries worldwide. A large number of employees are

employed in retail and outside the central office, however the majority of the interviews were conducted in and with employees from the head office. The relationships within the company's headquarters are segmented and more team-centric, with even teams sharing the same floor not knowing the other teams well. The main tools used within the company are Avature (a customer relationship management-like system focused on broadcasting targeted information to large groups of people) for selection and attraction and an internally developed chat client for internal group or individual instant communication. Externally, LinkedIn is used differently by recruiters, employees and alumni for attraction, broadcast and "socializing" (e.g. keeping in touch with former colleagues).

3.2.2 UKConsulting

A technology consulting firm which concentrates on consultancy services in HR technology space and is a part of a US-based group of companies. The case study focused on UK based part of the firm which was recently acquired by the mother-company, so that all of functions from IT to HR are still present in one London location. The corporate culture and tools are still those of a much smaller UK firm and are not yet adapted to the global US-corporate culture. However, the use of (in-house) social media tools and platforms has already been adopted by the employees and is representative of the firm-wide practice. Despite no active enforcement, the communication tools are available and are being used for sharing and intra-company communication. The main tools used are internal in-house Facebook-like tool and LinkedIn.

3.2.3 UKOutsourcing

Services company with contracts in security, maintenance and transport. The head office functions are distributed across the UK and employees from the south east of England, London and Birmingham were involved in the study. The company is operated as individual companies under a group umbrella with shared central services such as IT, HR, Finance. There is an explicitly stated sense of "comradery" and an actively encouraged atmosphere of "fun at work" even between different companies within the group. An internal communication platform – Yammer has been recently introduced, but is not being used for inter and intra-team communications to the

expected extent, with managers more active than employees. Externally, it is company's policy is to "monitor but not to engage" on twitter and co.

3.2.4 UKSoftware

This company is a publicly listed software company with European headquarters in London. However, following ownership structure changes, global headquarters have recently been relocated to the US. The London office covers world-wide operations with the exception of the Americas. Most of the company's different departments from admin, over finance and sales to implementations and professional services are present within the London office. The communication and participation in company's social media networks is encouraged by policy and in practice. Two main social media tools are being used most prominently – "chatter"- a Facebook-like chat/profile/news portal by Salesforce and "wiki" – a Wikipedia-like knowledge sharing portal. Access to the some parts of the Wiki is given to partners, customers and ex-employees, so that the system is being used as an open solution –forum.

3.3 Data Analysis

The data analysis focused on the identification of descriptive conditions of engagement/ non engagement and further on establishing links between these conditions and a reported or observed "dialogue" between the employer and the employee. The definition of a "dialogue", for the purpose of the analysis is binary (it either does or does not happen: 1 or 0) and is based on Kent and Taylor (1998) definition of a *two-way conversation*. Whenever there was a reported two-way conversation/exchange between employees and management or an official organisation's channel for example on twitter, the "dialogue as outcome" was coded as 1. In settings, where there was just one-way communication (e.g. employer broadcasting messages and employees not able or willing to reply), or where the exchange did not happen at all, the "dialogue as outcome" was coded as 0.

3.3.1 Step one: Identification of Conditions

The conditions were derived from the empirical interview data. Each interview was coded in NVivo. Within-case coding was then performed: codes were combined and the interviews were re-coded to reduce the number of codes (Silverman, 2013). Codes were then grouped within each case to form initial themes. Cross-case analysis was

performed with the reduced number of codes and reviewed themes (Eisenhardt, 1989) and codes from different cases (one-by-one comparison) were combined followed by another round of re-coding. Finally the themes were grouped to “conditions”, whereby diagonally opposing themes were attributed as positive and negative outcomes of the same “condition” (e.g. “no senior ownership”, “long term strategic view” were attributed as negative and positive instances of “Strategy”-Condition).

Following initial analysis of the case-interviews, four main themes/conditions have been identified: (1) engagement strategy, (2) usage policy, (3) top-down or bottom-up use, and (4) management beliefs about importance of engagement. The number of conditions has a significant impact on the analysis, as the number of possible configurations grows exponentially. The problem of the number of conditions is discussed in the Conclusions section of this paper.

Strategy: in all cases the expression “strategy” in combination with “engagement” or “social media” has been used. None of the UKBank interviewees could confirm existence of a social media strategy. On the contrary UKConsulting interviewees confirmed that the firm “definitely has a strategy”. In UKOutsourcing, the bluntest statement was “we don’t have a strategy around social media”. Finally UKSoftware has a “clear strategy regarding employee engagement”.

Policy: UKBank has no clear policy, or the employees are not aware of it. UKConsulting employees are not sure what the policy is either. UKOutsourcing “have some governance guidelines for people for employees in terms of how you operate on social media personally and professionally”. UKSoftware has “training on using chat and wiki [which] is mandatory for all employees”.

Top-down vs. bottom-up use: UKBank enforces and regulates social media use top down: “[my job was...] making sure that recruiters who have licenses this meant use this to you know level to its full level of functionality”; UKConsulting encourages the use, however the employees are free to use (internal) social media how and when they see fit. UKOutsourcing had a bottom-up initiative to start using social media for internal communications and LinkedIn for employee and candidate engagement. UKSoftware employees are encouraging each other to use internal wiki: “This is good, post it on Wiki, someone else might like it”.

Management beliefs: UKBank believes in strict managerial control of social media use: “in order to be able to effectively use social media you also have to have a decent administrative function there to control it and to feed through it”. UKConsulting’s

management does not enforce use: “Management think that people are interested, but if it is not followed through it makes you (...) sceptical”. UKOutsourcing is guided by the assumptions that employees must be “driven” to social media channels: “And we need to drive traffic to things like “Yammer”, because the only way to get that information is if you go there”. UKSoftware’s management puts out active messaging to drive social media use and is very active in doing so: “Our goal is to enable the community, so the preference (...) is to share it”.

3.3.2 Step two: Constructing a Truth Table

To construct a “truth table”, each case is written as a row listing all conditions as “present=1” or “absent=0” and the outcome as “observed=1” or “not observed=0” (Table 1 - Case Truth Table). Each unique set of conditions is referred to as a “configuration”. Each of the conditions identified in the previous step has been coded for each case based on the qualitative empirical data. The resulting table provides a structured representation of configurations/outcomes based on the available data.

Case	Strategy exists (S)	Usage policy public (U)	Bottom-Up Use (B)	Management enforcement (M)	Dialogue (D)
UKB	0	0	0	1	0
UKC	1	0	1	0	1
UKO	0	1	0	1	0
UKS	1	1	1	1	1

Table 1 - Case Truth Table

Based on the four case studies, four out of 16 possible configurations have been covered. If two or more cases have the same configuration and outcome, the rows are joined and the “Case” column is updated to contain all the case names. If the cases with same configuration show different outcomes, the contradictory configurations need to be addressed and resolved.

3.3.3 Step three: Contradictory Configurations

Contradictory configurations are cases with same conditions but different outcomes. There are different approaches how to deal with those cases (Rihoux & Ragin, 2009) . One possible approach is to “drop” one of the cases. Another approach is to re-visit the list of conditions and add new conditions, adjust the definition of conditions or the 0/1 coding. Finally, the assessment of the outcome as 0/1 can be reviewed. The elimination process can be repeated recursively until no contradictions remain.

In the four cases reported in this paper there were no contradicting configurations, as all four cases were characterised by a different configuration. Additionally, the conditions were derived from the cases, so that the matching process was “reverted” – not the cases were matched to conditions, but conditions to the (data within the) cases.

3.3.4 Step Four: Boolean minimization

The process of Boolean minimisation is following the rules of Boolean logic to identify the most parsimonious truth formula based on the data, also called “minimal formula”.

The data coded in the truth table can be expressed in plain language or as a Boolean formula. Each of the case’s conditions can be described as present or absent. For example the UKS row can be described as “When conditions Strategy and Usage Policy and Bottom-Up Use and Management Enforcement were observed, Dialogue was observed”. For the shorter term, the conditions were abbreviated using the first letter of each condition. The formula for the UKC row in Boolean notation is thus $S*U*B*M \rightarrow D$.

Analysing rows with positive outcomes, it becomes clear, that there are two possible configurations which both lead to “dialogue”: UKC: $S*\neg U*B*\neg M \rightarrow D$ and UKS: $S*U*B*M \rightarrow D$. These expressions can now be joined with an “OR” expression (as we can say “dialogue was observed under conditions of case UKS or UKC): $S*U*B*M+S*\neg U*B*\neg M \rightarrow D$, this can be expressed as: $S*B * (U*M + \neg U * \neg M) \rightarrow D$. Which reads “Dialogue is observed when there is Strategy and Bottom-Up use and there is either both management enforcement and public usage policy, or neither management enforcement nor public policy.

Similar process is carried out for cases where the outcome was not observed. In case of UKB, the formula is $M*\neg S*\neg U*\neg B \rightarrow \neg D$. In case of UKO, the formula is $M*\neg S*U*\neg B \rightarrow \neg D$. Combined formula is $M*\neg S*\neg U*\neg B + M*\neg S*U*\neg B$, or shorter: $M*\neg S*\neg B * (\neg U + U)$. It is obvious, that the condition “ $U+\neg U$ ” is tautological and can be removed, leading to $M*\neg S*\neg B \rightarrow \neg D$ as the minimal formula for the absence of dialogue, reading “No dialogue is observed when there is Management Enforcement, but no Strategy and no Bottom-Up Use”.

3.3.5 Step Five: Logical remainders

The Number of possible configurations is greater than that of observed cases. With four conditions we expect $2^4=16$ configurations. It is possible to construct a list of all possible combinations (however unrealistic they are to occur in real life) and extend the truth table to cover all possible configurations. The outcome in such “theoretical cases” is not (yet) observed, therefore can only be coded as 0 based on the data available. The theoretically possible (if improbable) cases are referred to as “logical remainders”, and are coded in “Table 2 - Truth Table with Logical Remainders” as LR1 – LR12.

Case	Strategy exists (S)	Usage policy public (U)	Bottom-Up Use (B)	Management enforcement (M)	Dialogue (D)
UKB	0	0	0	1	0
UKC	1	0	1	0	1
UKO	0	1	0	1	0
UKS	1	1	1	1	1
LR1	0	0	0	0	0
LR2	0	0	1	0	0
LR3	0	0	1	1	0
LR4	0	1	0	0	0
LR5	0	1	1	0	0
LR6	0	1	1	1	0
LR7	1	0	0	0	0
LR8	1	0	0	1	0
LR9	1	0	1	1	0
LR10	1	1	0	0	0
LR11	1	1	0	1	0
LR12	1	1	1	0	0

Table 2 - Truth Table with Logical Remainders

The formulae for observed and unobserved conditions can now be re-written using the logical remainders. As we have not added any new cases with a “positive” outcome, the formula from step four cannot change. However the formula for “no dialogue” can now be extended, for example employing a Karnaugh Map (Karnaugh, 1953) as presented in “Figure 2 - Karnaugh Map of all configurations” to: $\neg S + \neg B + S*B*(U*\neg M + M*\neg U)$.

	S		-S		
B	1	0	0	0	U
	0	1	0	0	-U
-B	0	0	0	0	U
	0	0	0	0	-U
	M	-M	M	-M	

Figure 2 - Karnaugh Map of all configurations

Three alternative configurations describe a “no dialogue” outcome. The configurations for “dialogue” and “no dialogue” can now be analysed and interpreted.

3.3.6 Step six: Interpretation

How do organisations use social media to create dialogue? Under what conditions can dialogue on social media platforms such as blogs, forums, community-networks, etc. happen? The initial findings suggest that a top-down strategic approach is an enabler of dialogue (Kaplan & Haenlein, 2010). *Social media strategy is a necessary condition* for dialogue to happen. However, just having a strategy, enabling employees’ participation is not enough. Surely, top-down encouragement and *access* to social media platforms are important and necessary conditions, however not sufficient.

Another *necessary condition is the bottom-up use of social media* platforms. Bottom-Up use cannot be enforced or imposed, and relies heavily on the creation of *benefits* for individual participants or, as one of the interviewees in UKC described his motivation for using social media platforms in work: “it has to be relevant”. While Bottom-Up use is not a sufficient condition, it is a necessary condition for creating a dialogue.

The role of policy and management enforcement is not clear from the data available. Neither is a sufficient condition and both only appear to be relevant in interplay with each other. Both these conditions seem to be necessary, but mutually exclusive. Arguably, “policy” or “management enforcement” create a framework within which engagement on social media takes place. While policy is spelling out the rules, the management enforcement is the act of implementing the policy and pushing it through. Does too much or too little regulation (either conditions present or both

conditions absent respectively) create a setting in which there is no dialogue (DesAutels, 2011; Kaplan & Haenlein, 2010)? Further research into these settings would be required to provide more insight. The data from available four studies does not deliver explanations, but introduces more questions. It is also possible, that the policy and management enforcement are not necessary conditions in either case: existing research suggests that communication on social media can happen without regulation and oversight, so that neither enforcement nor regulation would be necessary (Huang et al., 2013). The cases LR9 and LR12 (Table 2) are the two cases which would empirically help understanding the role of Policy and Management Enforcement. If these cases lead to positive outcomes, Dialogue can happen independent of Policy or Enforcement. On the other hand, if either case leads to a negative outcome, the role of Policy and Management Enforcement becomes more complex and would warrant more attention, suggesting that Policy can influence participation and dialogue (Stein, 2013).

The findings assessed within the DART-framework of value co-creation (Prahalad & Ramaswamy, 2004) suggest, that *access* and a balance of *risk/benefits* are necessary conditions for the creation of dialogue. The absence of access or lack of (perceived) benefits for either employee or the management appears to inhibit dialogue, despite possible managerial encouragement and enforcement. Further, the findings contradict the “top-down” strategic HRM view presented by Bowen and Ostroff (2004) and suggest that dialogue and employee involvement cannot be enforced from the top.

4 Conclusions

This paper addressed a number of questions from theoretical and methodological points. First, how dialogue between the management and employees can be created or supported on social media. Second, how the communication on social media is linked to value creation. Third, how comparative analysis techniques can be applied to building theories in the context of Information Systems research.

4.1 Implications for theory and practice

The findings suggest that creation of dialogue on social media between the management and employees requires a strategic approach from the management. This is little surprising from the point of view of off-line employee engagement, where an

emphasis is made on management to encourage and support employee's ability to voice their ideas, concerns and critique (Morrison, 2011; Saks, 2006). On the other hand, these findings go somewhat contrary to social media use in other areas such as consumer engagement or political movements (Hanna et al., 2011; Howard & Parks, 2012; Kaplan & Haenlein, 2010), whereby the use of social media platforms for communication happened bottom-up, without support or encouragement from the producer or political leadership (and often times despite explicit opposition). At the same time, the strategic top-down approach of much of the HRM literature (Bowen & Ostroff, 2004) is challenged by the findings which highlight *Bottom-Up Use* as a necessary condition for the creation of dialogue. It could be argued, that when it comes to communication on social media, both approaches: top-down and bottom-up need to be combined to create a setting which allows dialogue to develop.

Placed within the DART value co-creation framework (Prahalad & Ramaswamy, 2004), the findings support the theory that *dialogue* between employees and management relies on *access* to communication platforms by employees. The management plays a significant role by encouraging and allowing access to such platforms. Simultaneously, *risk/benefit* balance for the management (read strategic long term attitude towards social media use) and for the employees (read access to relevant information and resources) is required for the *dialogue* to take place, and for a *transparent* exchange of ideas and information.

The main finding relevant to the HRM practitioners is that dialogue requires both parties to be engaged. While HR managers might have influence over strategy and policy, the Bottom-Up use by employees cannot be enforced or imposed. Practically this suggests that employees would need to see benefits of using social media which are relevant to them. At the same time the findings once again highlight the importance of a top-down, strategic approach to enable and encourage social media use, which underlines the strategic role of HR management (Bowen & Ostroff, 2004; Guest, 2011).

The application of comparative qualitative analysis techniques, which initiated in the political sciences (Rihoux & Ragin, 2009) proved to be useful in the area of Information Systems research and allowed new insights into social media-in-use, as well as supported the process of building new theory on creation of dialogic engagement between employees and management on social media. Like any other

approach, crisp set Qualitative Comparative Analysis (csQCA) and its application is open to a number of critique points which are addressed in the next section.

4.2 Limitations, critique, and further research

Some of the limitations of the paper and findings are inherent in the csQCA method. First, to apply the method, all conditions which sufficiently and adequately describe a configuration must be known a priori. Contradictory configurations are a clear signal that not all conditions are known or that existing conditions have been attributed incorrectly, however, a lack of contradicting configurations does not remove the doubt that a significant or important condition has not been missed or that all attributions are correct. Closely related to this problem is the pure mathematical fact that the number of possible configurations grows exponentially with every new condition added. Not only does it become more difficult to produce parsimonious formulae which describe configurations, but it becomes virtually impossible to conduct all the case studies (or find existing cases) which would cover all the configurations. Already with a relatively small number of conditions, the number of cases reaches “statistical significance” (e.g. 7 conditions result in 128 theoretical configurations) and quantitative statistical data analysis methods might offer a better approach. Finally, the rich qualitative data and rich descriptions of the phenomenon under the review are reduced during the analysis process to binary variables and so lose their richness and qualitative essence. The reduction process of rich qualitative data to binary 1/0 outcomes is in itself problematic, as it does not allow any grading, shading or leeway: a condition or an outcome is either “there” or “not”. There remains an element of doubt whether the grading of any given condition as one or zero was correct, especially in “borderline” cases.

This research was able to secure empirical data for four out of theoretically possible 16 cases. Further research and specifically case studies in organisations which cover the “missing” 12 cases would greatly improve the theory and provide stronger evidence, as would additional cases in existing four configurations. The absence of contradictory configurations suggests that the conditions were correct for *this set* of data, however, further studies might call for a review of existing conditions. Adding more conditions to create more descriptive and complex configurations appeared problematic – available data did not yield more conditions, literature review would provide an alternative or extended set, however, for the purpose of analysis, these

conditions would have been all codes as zero in empirical data and would not contribute to creating a more parsimonious or reliable description. The coding of available empirical data and coding of “borderline” conditions as either zero or one was not encountered in the four case studies. It is possible to assume, that no borderline cases were found, as the conditions were developed inductively from the data. That is the data was the starting point and conditions were created to describe the data, as oppose to a deductive study, where conditions were developed based on a different set of data and the empirical data would be analysed based on these conditions resulting in a more or less good match.

While the findings provided useful results in relation to strategic approach to social media use and bottom-up use of social media, the role of policy and policing (management enforcement) are unclear, and the empirical data does not deliver clear insights. Further case studies and a review of these conditions and attributions is required to clarify the role of policy in creating dialogue between employees and management on social media.

Overall the study provided meaningful insights into dialogue creation through social medial use in the context of HRM. The results challenged some of the established theories of HRM and provided input for further research. In addition, the study offers an example of the application of crisp set QCA as analysis method in Information Systems research which would be helpful for other qualitative researchers. Finally, the findings of the study are helpful for HRM practitioners who are looking to use social media to engage with employees.

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