ORGANIZATIONAL ADOPTION OF SOCIAL MEDIA IN THE USA: A MIXED METHOD APPROACH

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Abstract

Current literature about organizational adoption of social media mainly focuses on how organizations are using these technologies to interact with customers and other stakeholders. In this paper, we expand this line of research by exploring the internal processes that organizations put in place to support their social media initiatives. Using a mixed methods approach that combines data mining and content analysis techniques, we examine the adoption of social media across multiple industries. To avoid limiting our sample to a specific social media technology, we analysed 20,285 web-based job postings related to social media job, and identified around 9000 companies from those job postings representing all 20 main industries in the USA. Results provide a broader view of social media diffusion across industries, highlight new organizational uses of social media (e.g., social media listening, using social media to engage with industry and media influencers) and provide deeper insight into the internal processes employed by organizations to support their social media initiatives (e.g., develop social media strategies, managing social media platform, developing social media metrics).

Keywords: Social Media, Organizational Adoption, Mixed Methods.
1 Introduction

There is no doubt that organizations are increasing their presence in the social media sphere. Between 2007 and 2008 the number of Fortune 500 companies with active blogs doubled from 8% to 16% (Barnes and Lescault, 2012). In 2011, 73% of the 500 fastest-growing private companies in the U.S were active on Facebook, and 64% were active on Twitter (Barnes and Lescault, 2012). To better understand this increase on organizational adoption of social media, researchers have studied how organizations use these tools to support different business functions such as corporate communication (El-Haddadeh et al., 2012) or marketing (Hong, 2012; Nassar, 2012). Researchers have also examined the extent of adoption of social media in specific economic sectors (e.g., Brennan and Croft, 2012). Finally, research has focused on the diffusion of a specific social media tool (e.g., LinkedIn) across different organizations and industries (e.g., Witzig et al., 2012). Overall, these studies indicate that organizations use social media to better promote their product and services (Hong, 2012), to have a closer relationship with their customer and stakeholders (Brennan and Croft, 2012; El-Haddadeh et al., 2012), to respond quicker to new competitive threats (Kiron et al., 2012) and to develop massive brand awareness and marking campaigns at lower costs (Sinclaire and Vogus, 2011).

Although these studies provide important insights on organizational adoption of social media, the majority of these studies are limited to data collection on a specific economic sector. As well, their analysis is restricted to the adoption and use of a reduced set of social media tools (e.g., Blogs, Facebook, Twitter, LinkedIn). For example, Sinclaire and Vogus (2011) study organizational use of social media but limit their attention to Facebook, MySpace, YouTube and Twitter. Likewise, the same authors collect data from 72 large global companies representing only ten industries. Thus, their findings about organizational use of social media may not generalize to small or medium-size organizations, to organizations in other industries, or to organizations using different tools. Thus, the first objective of this paper is to design a study that includes the collection of a large-scale dataset that allows us to answer the following research question without limiting our scope to a specific set of social media tools: what is the level of diffusion of social media across industries?

Secondly, most of the current literature suggests that organizations adopt social media to support different business functions expecting to gain competitive advantages (Brennan and Croft, 2012; El-Haddadeh et al., 2012; Hong, 2012; Sinclaire and Vogus, 2011). Whether the adoption of a particular technology brings organizational value and competitive benefit depends on the organization’s ability to define and deploy business strategies and work processes to support the new IT platform (Bhatt and Grover 2005; Mata et al., 1995). Thus, the second objective of this paper to explore the following research question: what are the internal processes that organizations put in place to support their social media initiatives?

To examine our two research objectives we draw on literature about IT value (e.g., Agarwal and Sambamurthy 2002; Bharadwaj, 2000). This literature indicates that the adoption of a new technology leads to higher organizational value when organizations effectively engage in three main activities. First, organizations should adopt a new technology to support key activities in the firm’s value chain. Examples include using enterprise resource planning systems to support supply chain management processes (Rai et al., 2006; Zheng et al., 2000) and adopting an e-business platforms to support customer-related processes (Brynjolfsson and Kahin, 2000). Secondly, organizations need to maintain an adequate IT infrastructure. This includes supporting the current technological platform, as well as proactively searching for ways to embrace new IT innovations or exploit existing IT resources to create new business opportunities (Bharadwaj, 2000). Finally, the firm should develop a clear strategic vision for the role that the adopted technology will play on the organization (Agarwal and Sambamurthy, 2002; Bharadwaj, 2000). Defining an IT vision includes defining an IT strategic plan.
that integrates business objectives with IT, and that provides a clear understanding, for mangers and stakeholders, of the value that the IT investment is creating.

To achieve our two objectives and answer our two research questions, we conduct a mixed-method study in which data mining and content analysis were used to analyse 20,285 descriptions of social media related jobs obtained from a large online job board. From this dataset, we were able to identified 9304 companies across 20 industries in the USA. First, we automatically extracted meta-data about each job description (e.g., job title, company information, geographic location), which allowed us to capture evidence of diffusion of social media across industries. Secondly, we applied text-mining algorithms (Blei, 2012) to discover topics that are predominant in the job descriptions. Finally, we conducted a traditional manual content analysis on a random sub-sample of jobs to better understand the topic models developed through automated topic analysis on the large dataset and to discover new topics not identified by the automated topic analysis. Thus, beyond the investigation on diffusion and adoption of social media cross borders, a key contribution of the study is also its mixed methods approach.

2 Method

Studies of job advertisements have long been used to investigate a number of different questions, from assessing economic indicators of occupational demand (Saketkhoo et al., 2003) to investigating changing skill sets on professional groups (Mathews and Pardue, 2009; Tood et al., 1995). Job advertisements are a rich source of information because they are expected to inform the reader about the hiring company and the opening positions. Although there are no universal rules about how to structure a job advertisement, the documents tend to provide the job title of the opening position, describe the position itself, as well as the responsibilities associated with that position, and the skills and qualifications expected for those fulfilling that position. An example of the structure of two social media related job advertisements is presented on Table 1.

Table 1. Examples of the structure of two social media related advertisements.

Given that job advertisements describe organizational functions, it is possible to make inferences from them about the recruiting organization. This includes information about organizational values and objectives (Barber and Roehling, 1993; Feldman et al., 2006); and the responsibilities and expected skills for the announced role (Bennett, 2002; Roberson et al., 2005) Thus, we believe that the analysis of postings related to social media jobs is a valid source of information to understand organizational use of social media and how organizations are developing social media initiatives.

2.1 Data Collection

We collected data from Indeed.com, a job-posting website that aggregates job announcements from thousands of sources, including job boards, newspapers, associations, and company career pages, making Indeed.com the most popular (Schonfeld, 2010) and comprehensive online job board in the USA (Taylor, 2003). We used Indeed.com’s advanced search option to look for job advertisements in the United States that include any of the phrases ‘social media’, ‘social computing’, ‘social software’, ‘social application’, ‘social platform’, ‘social collaboration’, ‘social technology’, ‘social technologies’, ‘social business’. We used an automated process to collect all job ad postings in html format on a daily basis for 30 days. Postings that appeared on multiple dates were removed prior to analysis. Final sample consisted of 20285 job advertisements.

From each job advertisement we extracted the job title, company name, and company location. We used Dun and Bradstreet (D&B) services, a world-leading source of commercial information, to obtain the industry, number of employees and revenue of the employing company. Due to missing data, we
were able to extract this information from approximately 45% of the job advertisements, representing 9304 companies across 20 industries. Our industry categorization is based on The North American Industry Classification System (NAICS).

2.2 Text Mining and Topic Models

Considering the large amount of information captured from Indeed.com, we employ text mining and topic modelling to automate part of our analysis. Topic modelling seeks to discern the hidden structure of topics in a document collection (Blei, 2012). In text mining, a document is treated as a “bag of words” without considering the order of word occurrence. A document is represented as a vector defined by the terms occurring in the document and their occurrence frequency. A document-term matrix represents the collection of documents where each row corresponds to a document vector and columns represent terms.

We used a Latent Dirichlet Allocation (LDA), a well-validated method for obtaining topic models, to extract the latent topic structure from the document-term matrix (Blei, 2012).

Topic models assume that documents may discuss multiple topics, and each topic is described by a probability distribution over the set of words (Lee, Song and Kim, 2010). It is up to the researchers to interpret the words describing a topic in order to give meaning to that topic. The result of the LDA method is the document – topic matrix, where each row corresponds to a document vector and columns represent topics with their assigned probabilities of occurrence in that document. The number of topics is a user-specified parameter. We conducted analysis for 10, 20, 30, 40, and 50 topics. After comparing results, we chose the model for 50 topics because it had the best ease of interpretation (words within each topics were related to each other) and it presented the higher discriminant validity (topics were clearly different from each other).

2.3 Content Analysis

To complement the list of topics that emerged from the text mining analysis, we conducted content analysis of a random sub-sample of the collected job postings: around 1% of the job advertisements analysed through data mining. Our objective was to validate whether the text mining analysis identified all relevant topics as well as to develop a better interpretation of results from the text mining analysis.

Our content analysis incorporated three main steps. First, we took a grounded approach (Strauss and Corbin, 1998) where coding was done line-by-line without using any predefined schema. We let the concepts and codes emerge from the data, emphasising our research objective: the use of social media and associated jobs responsibilities. We started our content analysis with a random subsample (10) of job postings. After analysing the codes from this first round, another random subsample of 10 jobs postings was examined. The objective of this second round was to identify new themes, and validate the one already identified. After reviewing 70 job postings, no new themes emerged from the data meaning that we reached theoretical saturation (Strauss and Corbin, 1998). However, we considered 70 job advertisements to be a small percentage of our total sample (20285 job advertisements). Thus, we coded 130 more job advertisements to reach approximately 1% of the total dataset. Two new themes emerged. From our analysis, 167 codes were identified representing 935 text segments.

The second step of the analysis involved axial coding, in which our first-order codes were grouped to create higher-level conceptual themes. This phase requires making adjustments by combining similar codes into mutually exclusive themes. The result was a set of 16 broad themes and associated concepts that described and explained organizational adoption of social media. The third step involves looking for dimensions underlying our second order categories in an attempt to understand how different categories fitted together into a coherent framework. For example, some categories seemed to be
related to organizational use of social media, but other were more like to describe organizational efforts to develop an organizational social media strategy.

3 Results

This paper is part of a larger research project that examines organizational adoption of social media; in this section we describe the results relevant to this study.

3.1 Social Media Adoption by Industry

Table 2 presents the result of our analysis of social media adoption across industries, which was obtained from approximately 45% of our total sample (N= 20285 job advertisements), representing 9304 companies across 20 industries in the USA. We compare the percentage of social media jobs per industry from our sample, to the percentage of the total number of USA employees and the percentage of the total number of USA companies, both per industry.

In our sample, the Professional, Scientific, and Technical Services industry had the most social media job advertisements (27%), and has the second highest concentration of business in the USA (13%). The Manufacturing industry had the second highest percentage of social media job advertisements (18%), but includes only 4% of the total business in the USA. Finally, the Information Industry was number three with 14% of the social media jobs advertisements. This industry represents 3% of the workforce in the USA, and 2% of its total businesses.

Six industries contain 78% of the job advertisements. These industries are the Professional, Scientific, and Technical Services industry; the Other Services industry; the Health Care and Social Assistance industry; the Manufacturing industry; the Information industry; and the Education Services industry. However, overall, these industries include 48% of the active workforce in the USA, and 38% of the business in the USA.

It could be argued that industry size based on the number of businesses will influence the number of social media jobs in that industry since there are more potential employers. However, our findings do not support this statement. The Administrative and Support and Waste Management and Remediation Services industry, and the Retail Trade industry, which are the top 1 (16%) and top 3 (11%) industries in size by number of business, contain only 7% of the social media jobs in our sample.

<table>
<thead>
<tr>
<th>Industry</th>
<th>Percentage of social media jobs ads per industry (N = 14,842)</th>
<th>Percentage of the total number of USA employees per industry (N = 101,241,000)</th>
<th>Percentage of the total number of USA companies per industry (N = 20,876,214)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional, Scientific, and Technical Services</td>
<td>27%</td>
<td>8%</td>
<td>13%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>18%</td>
<td>12%</td>
<td>4%</td>
</tr>
<tr>
<td>Information</td>
<td>14%</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>Education Services</td>
<td>8%</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>Other Services (except Public Administration)</td>
<td>6%</td>
<td>5%</td>
<td>10%</td>
</tr>
<tr>
<td>Health Care and Social Assistance</td>
<td>5%</td>
<td>17%</td>
<td>8%</td>
</tr>
<tr>
<td>Finance and Insurance</td>
<td>4%</td>
<td>6%</td>
<td>4%</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>3%</td>
<td>5%</td>
<td>11%</td>
</tr>
<tr>
<td>Administrative and Support and Waste Management and Remediation Services</td>
<td>3%</td>
<td>8%</td>
<td>16%</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>2%</td>
<td>6%</td>
<td>4%</td>
</tr>
<tr>
<td>Others</td>
<td>2%</td>
<td>4%</td>
<td>3%</td>
</tr>
</tbody>
</table>

*Table 2. Comparative table of social media jobs per industry in the USA.*
3.2 Topic Analysis

Our topic analysis is based on a model that discriminates among 50 different topics. Our analysis indicates that there were topics that provide a general description of the position to be filled. This includes topics describing job titles, desired skills of the applicant, and job benefits (Table 3, topics 1-3), the type of job (e.g., full-time, internship), and compensations offered for that position (e.g., salary, bonus, other compensations) (Table 3, topics 4-5). There were another group of topics describing the functional area where social media will provide support, such as marketing, advertisement, branding, and customer service (Table 3, topics 6-10). There were also topics describing responsibilities related to the position, such as event coordination, traffic generation, data analysis, and software development (Table 3, topic 11-22). Finally, there were topics describing the type of organization where social media has been adopted such as education, healthcare, and non-profit organizations (Table 3, topics 23-25). An analysis of the distribution of job advertisements per topic also indicates that marketing and advertising are the functional areas with the highest number of social media related jobs (27%). Similarly, job responsibilities related to IT/IS (e.g., software development, software coding, system design) had the highest number of posting associated in their category, and on the overall dataset, 35% of the job advertisements were IT/IS related. It is worthy to notice that not all 50 topics are relevant to this study. There are topics related to the benefits provided by the hiring company (e.g., compensation, dental, health insurance) or the applicant requirements (e.g., managerial experience, service experience, bachelor degree).

3.3 Content Analysis

A summary of our content analysis is presented in Table 4. Three high level dimensions emerged from our data. These dimensions were related to: 1) organizational use of social media 2) social media platform management, and 3) the developing of social media strategy. Each of these dimensions is comprised of subcategories or themes. We now discuss the different sub-categories for each dimension, the percentage of job advertisements (N = 200) that discuss that category, and a supporting quote. We also indicate whether the themes identified in the manual content analysis were also identified in the topic analysis model based on data mining.

3.3.1 Organizational Use of Social Media

Social Media for Community Management (27%, N = 200). Our data mining topic analysis describes this topic with the following terms: community, editor, engage, manage; content, curate; journalist. Community management, generate content. Our content analysis indicates that organizations are constantly looking for new ways to increase the participation of their social media community members (followers, customers). Some of the job roles supporting this objective are community moderators, social media event coordinator, and community managers. These roles are expected to enhance community engagement, engage with followers, develop a presence on the selected social media platforms, and foster external communities. The social media account manager of a IT consulting firm is expected to “generate increased engagement, and to build outreach initiatives to engage the community actively and responsively, both in relevant outpost communities and existing resident channels.”

Social Media to Engage with Influencers (13%, N = 200). Social media is also helping organizations to create, maintain, and foster relationships with individuals or other organizations that have strong reputation in the industry or in the social media sphere, so-called “influencers”. Influencers are not regular community members, or clients. Instead they are well-known representatives or spokespersons (e.g., famous bloggers, famous sport reporters). By engaging with influencers organizations expect to develop partnerships that may enhance their social media participation. For example, a global professional association expects from its social media coordinator
“Identify industry influencers to connect with on social media platforms and request blog posts. Identify top industry bloggers and maintain regular outreach.”

<table>
<thead>
<tr>
<th>ID</th>
<th>5 describing terms</th>
<th>Topic</th>
<th>Broader categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Director, manager, associated manager, assistant director, associated director</td>
<td>Social media director</td>
<td>General description of the position</td>
</tr>
<tr>
<td>2</td>
<td>Account manager, service, contract, account executive, account director.</td>
<td>Social media account manager</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Managerial experience, verbal-written skills, service experience, strong interpersonal, bachelor degree.</td>
<td>Applicant requirements</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Benefits, vision, competitive salary, bonus, competitive compensations.</td>
<td>Job benefits</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Intern, internship, unpaid, flexible, undergraduate</td>
<td>Internship</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Market, advertisement, marketing program, marketing strategy, marketing research.</td>
<td>Marketing.</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Marketing communication, communication strategy, corporate communication, external communication, audience.</td>
<td>Corporate communication</td>
<td>Functional area</td>
</tr>
<tr>
<td>8</td>
<td>Advertisement, broadcast, radio, commission, television.</td>
<td>Advertisement</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Brand, consumers, brand marketing, brand manager, purchases.</td>
<td>Branding</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Customer service, customer experience, quality, customer support, customer relationship.</td>
<td>Customer Service</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Twitter, social media, marketing campaign, campaign management, email campaign.</td>
<td>Online Marketing campaigns.</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Promotion, promoting calendar, promoting material, event management, event plan.</td>
<td>Event Coordination.</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Increase awareness, traffic, conversation, audience, viral.</td>
<td>Traffic generation</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Data analytics, analytics tools, statistics, business intelligence, analytic skills.</td>
<td>Data analysis</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Content management, writer, blog, editorial, audience.</td>
<td>Content creation</td>
<td>Job responsibilities</td>
</tr>
<tr>
<td>16</td>
<td>Community, engage, curate, content, community manager.</td>
<td>Community manager</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Software development, software engineer, cloud, server, build.</td>
<td>Software development</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Development, java, code, agile, ajax.</td>
<td>Software coding</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Design and development, architecture, platform, user interface, framework.</td>
<td>System design</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Creativity, visual, graphic design, photoshop, portfolio</td>
<td>Graphic design</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Strategy, strategic plan, budget, vision, align.</td>
<td>Strategy</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Technology, emerging technology, technology company, latest technology, technology trends.</td>
<td>Emerging technology</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Student, education, college, campus, faculty.</td>
<td>Education</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Support, healthcare, patient, support team, physician.</td>
<td>Health care</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Idealist, fundraising, community, advocacy, children.</td>
<td>Non profit</td>
<td>Sectors where social media is been adopted</td>
</tr>
</tbody>
</table>

Table 3. Sample of topics, and describing terms.
Social Media Listening (13%, N=200). Although social media helps organizations promote their brand and products, social media is also a space for competitors and user to provide negative comments on social media places that are not affiliated with the organization but that have high exposure. Thus, organizations now see a need to oversee and supervise activities that take place outside the organizational social media sites. This activities include monitoring social media sites that do not belong to the organization in order to understand what other are saying, monitor user's comments about the brand on different social media sites, and use social media to understand customers' sentiment toward the organization. In our example, a mobile marketing company expects from its marketing manager to “Monitor the conversations taking place about [the company] via social listening sites, survey tools and social analytics platforms.”

Other uses of social media that were identified in our content analysis but are not included here for space limitations are: 1) organizational use of social media for customer service, which describes organizational intentions to use social media to solve consumer inquiries, reviewing customer feedback, and responding to client’s comments. Our data mining topic analysis describes this topic with the following terms: customer, customer service, customer relationship, customer experience. 2) Organizational use of social media for branding, which describes responsibilities related to the use of social media to enhance organization's name, identity and credibility. Our data mining topic analysis describes this topic with the following terms: brand, consumers, brand marketing, brand manager. And 3) organizational use of social media for marketing, which represents responsibilities related to the use of social media for the promotion, and distribution of ideas, goods, and services. Our data mining topic analysis describes this topic with the following terms: market, advertisement, marketing program, marketing strategy, marketing research.

3.3.2 Social Media Platform Management

Incorporate Social Media Trends (21%, N=200). Our data mining topic analysis describes this topic with the following terms: technology, emerging technology, technology company, latest technology, technology trends. In relation to how organizations are managing their social media platform, results from our content analysis indicate that organizations are attempting to stay up-to-date on new social
media trends including new social media sites, and emerging technologies and applications. We found a social marketing company requiring from its social media product manager to “diligently seek out and understand new and existing social platforms and their strategic and competitive positioning, along with their rules of engagement including Facebook, Tumblr, Twitter, Pinterest, native mobile apps among others.”

**Maintaining Social Media Technological Platform (17%, N=200).** Results also indicate that organizations are defining jobs that have responsibility for the maintenance of the technological platform that supports the organization social media infrastructure. Some of the job responsibilities related to this function are web page maintenance, improving social media technological capabilities, improving social media infrastructure, and manage multiple social media channels and platforms. For example, an associate brand manager for a marketing company is expected to “identify and deploy new capabilities to existing platforms to improve experience, engagement, content.”

### 3.3.3 Social Media Strategy

**Social Media Metrics and Analytics (58%, N=200).** Our data mining topic analysis describes this topic with the following terms: Data analytics, analytics tools, statistics, business intelligence, analytic skills. Results from the content analysis indicate that organizations are recognizing the need to analyze their social media data, and measure and evaluate their social media efforts. This includes conducting data mining to create profiles based on groups, using social media analytics for market segmentation, developing social media metrics, and measuring the impact on social media efforts. A social media advisor for a multinational organization in financial industry is expected to “track the success of emerging and social media initiatives, and provide weekly reports on key performance indicators. Create and monitor benchmarks for measuring the impact of emerging/social media programs and campaigns and report on their effectiveness”.

**Develop Social Media Strategies (54%, N=200).** Our data mining topic analysis describes this topic with the following terms: Strategy, leader(ship), manage, collaborate, strategic plan, partnership, stakeholder, budget, vision. It was clear from our content analysis that organizations are acknowledging the importance of developing a social media business plans and business strategies. Job functions supporting this objective include developing strategies to grow social media followers, identifying social media opportunities, and developing different business plans to enhance presence on the selected social media platforms. For example, a company in the hospitality industry is looking for a social media manager that can “develops a social media roadmap, objectives and strategy, and execute well-defined social media strategies that increase product/service/brand awareness and generate inbound traffic”.

**Align Social Media Efforts with Corporate Strategies (7%, N=200).** Given that social media is used to support key organizational functions (e.g., marketing), organizations are trying to assure that social media efforts are congruent with the overall organizational strategies. This includes aligning social media campaigns with corporate objectives, aligning social media initiatives with the corporate strategic technology plan, and match social media platforms with corporate needs. In our sample, a social media manager for a cruise company should “ensure alignment with and support of overall Marketing and Public Relations efforts with our social media campaigns”.

Other themes related to social media strategy that were identified through content analysis but are not presented for space limitations include: the development of social media best practices (17%), which includes examining competitor’s actions, auditing other websites, developing best practices, and understanding other organizations social media strategies; and, the implementation of internal rules, procedures and policies for the use of social media by organizational members (30%) which includes promoting internal social media cohesion by developing and enforcing social media standards, providing internal guidance about usage, and training on social media best practices for employees.
4 Discussion and Conclusions

Organizations adopt a new technology expecting to enhance their competitive advantage. Expected benefits include responding to competitor, customer or supplier’s pressure, reducing operational costs, or creating new revenue channels by exploiting new markets, marketing, or publicity opportunities (Aguila-Obra, Padilla-Meléndez, 2006). Whether the adoption of a new technology creates value for the organization depends on multiple factors including technological, organizational, and environmental factors (Tornatzky and Fleischer 1990). In relation to organizational factors, the literature indicates that the adoption of a new technology leads to higher organizational value when organizations effectively engage in three activities. First, organizations should use the technology to properly support key activities in the firm’s value chain. Secondly, the firm should be good at managing the IT infrastructure. Third, the firm is proactively search for ways to embrace IT innovations or exploit existing IT resources to create business opportunities, and finally, the firm develops a clear IT strategic and vision (Agarwal and Sambamurthy 2002; Bharadwaj 2000; Broadbent et al. 1999; Fichman 2004; and Hulland 2004).

In relation to organizational adoption of social media, current research has mainly focused on the first factor: the integration of social media with different business functions to gain competitive advantages. However, less is known about how organizations are managing their social media platforms or developing social media strategies.

Studies examining the integration of social media with different business functions to gain competitive advantages, indicate that organizations are successfully using social media to support their marketing efforts (Bughin, Byres and Chui; Sinclaire and Vogus, 2011; Hong, 2012), to have a closer relationship with their customer and stakeholders (Brennan, and Croft, 2012; El-Haddadeh, Weerakkody and Peng, 2012) and to quicker gain awareness of their competitors’ actions (Kiron et al, 2012; Sinclaire and Vogus, 2011). Our findings are aligned with this stream of research. For example, we found that organizations are recruiting individuals to serve as social media community managers. Individuals in this role are responsible for the development of social media campaigns to support marketing, branding, and public relationship initiatives. Moreover, our findings also extend previous research by identifying social media listening, and engaging with influencer as new ways of how organizations are using social media to support their marketing, branding, and public efforts.

Related to how organizations are managing their social media platforms, our analysis indicates that organizations are using multiple social media channels simultaneously to engage with their customer. Most of the job ads indicate that applicants should be knowledgeable of Facebook, LinkedIn and Twitter. Whether organizations use different social media channels for different purposes is out of the scope of this study, but definitely this is topic that requires future examination. Our analysis also indicates that individuals responsible for managing organizational social media platforms are expected to monitor emerging technologies in social media tools, applications, and trends, as well as to stay up-to-date on new media websites and modes of engagement. These findings suggest that organizations are aware that social media is a very dynamic environment. As new social media websites and social mobile applications become available to the public, organizations feel the pressure to be up-to-date of the latest social media technologies and trends. Related to the development of social media strategies, our findings indicate that organizations are allocating effort and creating organizational roles responsible for 1) developing a clear social media strategy and vision, 2) measuring the value of their social media initiatives, and 3) implementing guidance about the proper use of social media by organizational members. These findings suggest that organizations are putting efforts on aligning their social media initiatives with their overall goals, and formalizing and creating process related to social media adoption.

Another important contribution of this study is its mixed-methods approach. Combining automatic data extraction with data mining techniques and manual content analysis allows us to uncover information that otherwise will not be possible to capture with each method independently, as well to
validate, to some degree, the results that came from each method independently. First of all, using automatic data extraction techniques allows us to collect information from 20285 job advertisements for topic analysis, and collect information from 9304 companies across 20 industries. To our knowledge this is the largest sample so far used to understand social media adoption across industries. Given the size of our sample and considering that we did not focus on any specific industry or tool, our findings do not suffer from the bias found on previous studies that focus on a single tool or specific industry.

Secondly, some of the topics discovered in the data mining analysis (e.g., use of social media for marketing and branding, the development of social media strategies), also emerged in our content analysis. Moreover, the fact that the results from data mining are similar to results from previous studies based on surveys and interviews (Sinclaire and Vogus, 2011; Kiron et al 2012), providing additional validity for the use of data mining to identify themes and patterns within large sample of text. Finally, our manual content analysis revealed more detailed information and insight about some topics that the data mining analysis missed (e.g., social media listening, social media metrics, and the development of internal policies). The fact that the two methods share similar findings increases the validity of our results, whereas their complementary findings extend the reach of our results.

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References


