



# A great place to work!? Understanding crowdsourced employer branding

Amir Dabirian<sup>a,\*</sup>, Jan Kietzmann<sup>b</sup>, Hoda Diba<sup>c</sup>

<sup>a</sup> Royal Institute of Technology (KTH), Stockholm, Sweden

<sup>b</sup> Beedie School of Business, Simon Fraser University, Vancouver, Canada

<sup>c</sup> Luleå University of Technology, Luleå, Sweden

## KEYWORDS

Crowdsourcing;  
Glassdoor;  
IBM Watson;  
Employer branding;  
Employee engagement;  
Employer attractiveness;  
Artificial intelligence;  
Human resource management

**Abstract** The benefits provided by employment and identified with a specific employing company are referred to as *employer branding*. We argue that when employees use IT to share and access work-related experiences openly across organizations, their expectations and assessments of workplaces change. We collected 38,000 reviews of the highest and lowest ranked employers on Glassdoor, an online crowdsourced employer branding platform. Using IBM Watson to analyze the data, we identify seven employer branding value propositions that current, former, and potential employees care about when they collectively evaluate employers. These propositions include (1) social elements of work, (2) interesting and challenging work tasks, (3) the extent to which skills can be applied in meaningful ways, (4) opportunities for professional development, (5) economic issues tied to compensation, (6) the role of management, and (7) work/life balance. We clarify that these value propositions do not all matter to the same extent and demonstrate how their relative valences and weights differ across organizations, especially if institutions are considered particularly good or bad places to work. Based on these findings, we show how employers can use crowdsourced employer branding intelligence to become great places to work that attract highly qualified employees.

© 2016 Kelley School of Business, Indiana University. Published by Elsevier Inc. All rights reserved.

## 1. Employer attractiveness: A matter of public opinion

Companies have always cared about what their employees think and say about them. Collective

employee opinions shape not only the loyalty, engagement, and retention of existing workers, but also how firms are seen publicly and how they are able to attract new talent. In this regard, firms both can benefit and suffer tremendously from the word-of-mouth their employees create and share (Kietzmann & Canhoto, 2013). However, until recently, managers did not have access to many of these stories as they developed; narratives were

\* Corresponding author

E-mail addresses: [amir.dabirian@indek.kth.se](mailto:amir.dabirian@indek.kth.se) (A. Dabirian), [jkietzma@sfu.ca](mailto:jkietzma@sfu.ca) (J. Kietzmann), [hoda.diba@ltu.se](mailto:hoda.diba@ltu.se) (H. Diba)

either naturally shared among peers behind closed doors or they were purposefully withheld by employees for fear of negative repercussions. In either case, a comprehensive, collective, experience-based, and easy-to-access account of employee opinions did not exist.

In the last few years, new technologies have brought these employment stories to the fore and shed a brighter light on *employer branding*, defined as “the functional, economic, and psychological benefits that are provided by employment and identified with the employing company” (Ambler & Barrow, 1996, p. 187). Not only can individuals tell and access these stories online at any time and from any location, but also because employees can now remain anonymous, they have no reason anymore to hold their tongues. And while such publicly available information can be beneficial for job seekers who want to learn about potential employers, the risk is that frustrated employees may start exaggerating or telling outright lies and that good businesses will end up being portrayed as terrible places to work.

To circumvent the spread of unreliable and unrepresentative data, specific social networks have been created. In line with the revised definition of crowdsourcing (Kietzmann, 2017), these social networks invite former and current employees to volunteer their employment-related stories. The advantage of these crowdsourced employer branding platforms is that they can rely on strength in numbers. If they succeed at attracting many employees and their stories, the voices of a few disgruntled employees will be silenced by the accounts of the many who praise the same company, and vice versa. When successful, these crowdsourced employer branding platforms enable job seekers to separate good employers from bad. The public nature of the information on these platforms also presses firms to listen to the stories of their employees, both former and current, or otherwise lose their best recruits to better firms without being able to attract new high-value individuals.

In short, employer branding is changing. The resulting crowdsourced employer branding presents new opportunities for former and current employees to share their employment experiences, allowing job seekers to learn more about potential employers. This means that firms need to understand this brave new world of crowdsourced employer branding so they can provide the benefits that a current or prospective employee desires in working for a specific organization (Berthon, Ewing, & Hah, 2005).

With the goal of unpacking crowdsourced employer branding, Section 2 presents a brief review of the literature related to employer branding and

crowdsourcing. In Section 3, we describe our study of the employment attributes employees use when they talk about their workplaces. To arrive at a well-rounded conceptualization of crowdsourced employer branding, we needed to decide which companies to analyze. We also needed to select a crowdsourced employer branding platform from which we could access stories about these organizations. For both of these we turned to Glassdoor.com, a website via which current and former employees anonymously review companies and their management and which also ranks the best and worst employers based on the crowdsourced employee-generated data. In Section 4, we describe how we analyzed the stories we scraped from Glassdoor.com using Watson, IBM’s natural language processing and machine learning tool. In Section 5, we present our findings in the form of seven employer branding value propositions before discussing the importance of their relative weights and valences in Section 6. In Section 7, we deliberate the managerial implications of our work. Finally, the limitations of the study are acknowledged and avenues for future research are identified.

## 2. Employer branding: Then and now

Employer branding refers to an organization’s reputation as an employer and its value proposition to its employees (Barrow & Mosley, 2011). The term suggests that a firm benefits from employer branding when it is perceived as a great place to work in the minds of current employees and key stakeholders in the external market (Minchington, 2010).

Great work environments do not emerge by happenstance, but rather result from deliberate and strategic initiatives aimed at attracting, engaging, and retaining employees. Indeed, employer branding is the product of the “sum of a company’s efforts to communicate to existing and prospective staff that it is a desirable place to work” (Lloyd, 2002, p. 65). But, of course, an employer brand cannot be controlled by the firm; its beauty lies in the eye of the beholder. In this regard, the degree to which a firm’s intended employer brand matches its employees’ experiences with the company culture and values determines the employer brand’s impact in the market.

Much has happened since the term employer branding was first coined by Ambler and Barrow in 1996. The then-new IT choices, far superior to the analog alternatives they replaced, allowed interaction among people in altogether new ways. Memories of early technology advances remind us of just how big a difference IT did make, starting with the

Web 1.0 era and the arrival of dial-up service at home (e.g., through AOL), email (e.g., Hotmail), the first browsers (e.g., Mosaic), and early-model cellular phones (e.g., Nokia 1600). But on the much-lauded information superhighway of the 1990s, websites were static and mainly allowed firms to advertise and toot their own horns when it came to employer branding.

With the development of XML, a new, more interactive web emerged. Known as Web 2.0 (O'Reilly, 2007), people could easily post their own content. The web went social. Social media platforms and mobile devices took over the internet (Kietzmann, Hermkens, McCarthy, & Silvestre, 2011; Kietzmann, Silvestre, McCarthy, & Pitt, 2012). People began to value the opinions of strangers and rely on peer-review sites for all sorts of consumer decisions, including books (e.g., Amazon), restaurants (e.g., Yelp!), hotels (e.g., TripAdvisor), and movies (e.g., IMDB). Review sites became the norm for savvy consumers everywhere and, unsurprisingly, people started to talk about organizations online, too. On LinkedIn (2003), Facebook (2004), YouTube (2005), and Twitter (2006), people started sharing their work experiences and created electronic word-of-mouth related to firms, their brands, their offerings, and their roles as employers (Ventura, 2013). All of this often-public chatter had a tremendous impact on employer brands and the ability of firms to attract and retain good employees.

These significant changes in terms of IT and employee interaction raise a number of important employer branding questions: When employees know about one another's experiences, do they still care about the same values or do their expectations change? What should managers focus on to compete for employees? How should managers understand and manage the information available today on crowdsourced employer branding platforms? To shed light on these questions, and more, we analyzed the content of Glassdoor, the most popular employer branding platform.

### 3. Crowdsourced employer branding in action: Glassdoor

Glassdoor is a website that started collecting anonymous, employment-related data from current and former employees in 2008. Its goal—captured in the tagline, 'Get Hired. Love Your Job.'—relies on employee-generated company reviews, salary and benefits information, and interview questions that candidates post from millions of job talks. Glassdoor's many competitors offer similar services but are focused more on specific geographic

areas (e.g., RateMyEmployer/Canada, Jobines/Asia, JobAdvisor/Australia, TheJobCrowd/U.K., Kununu/Europe). With 30 million subscribers from 190 countries and 10 million company reviews of more than 500 thousand firms, Glassdoor was undeniably the most popular global company and CEO review site in 2016.

Glassdoor invites participants to use a five-point Likert scale (1-star to 5-star ratings) to judge a series of employment-related variables. These include an overall rating, a firm's career opportunities, compensation and benefits, workload, senior management, and the firm's culture and values. The site further welcomes employees' comments about the pros/cons of the job and the firm, and asks for advice to its management. Lastly, Glassdoor offers a three-point scale (negative, neutral, or positive) for participants to rate the CEO and the firm's 6-month outlook, and asks participants if they would recommend the firm to their friends.

To understand the types of attributes employees care about in their evaluation of an employer brand, we looked at the firms that scored highest and lowest on Glassdoor. These extremes—which we refer to as an employer attractiveness spectrum—are featured in Table 1. The organizations listed were mostly large multinationals, spanning such industries as travel and tourism, business services, IT, real estate, retail, healthcare, and food manufacturing. We then scraped all of the reviews for these firms from Glassdoor, which resulted in a data set containing more than 38,000 reviews. About 70% of all reviews were left for the worst places to work, which points to our human tendency to criticize rather than praise. In order to make sense of the many reviews across these datasets and to understand the employer branding attributes employees value most, we turned to IBM's Watson.

**Table 1. Employer attractiveness spectrum: Glassdoor's 10 best and 10 worst places to work in 2016**

Best places to work	Worst places to work
Airbnb	Forever 21
Bain & Company	Express Scripts
Guidewire	Family Dollar Stores
Hubspot	Sears
Facebook	Xerox
LinkedIn	Kmart
Boston Consulting Group	DISH
Google	RadioShack
Nestle Purina PetCare	Dillard's
Zillow	Kraft Heinz Company

#### 4. Analyzing huge datasets: IBM Watson

Named after IBM's first president, Thomas Watson, the artificial intelligence (AI) engine Watson has been in the news ever since its 2011 Jeopardy win against Ken Jennings and Brad Rutter, two of the game show's greatest champions. Watson is based on Natural Language Processing (NLP), which means it is designed to use human natural language to process phrases and dialogs (Demirkan & Delen, 2013). Unlike other computer applications that use 'shallow' natural language processing (High, 2012), Watson relies on a deep natural language processing system that can take apart human speech to "identify interferences between text passages with human-like accuracy, and a speed and scale that are far faster and far bigger than any person can do on their own" (High, 2012, p. 4). The results are remarkable. For instance, Watson built a corpus of medical intelligence from hundreds of thousands of pieces of medical evidence, millions of pages of research articles, and training cases. The AI system's decision accuracy was then fine-tuned with the help of tens of thousands of clinician hours. Watson showed its analytical prowess when it cross-referenced a patient's genetic data with 20 million cancer research articles. In only 10 minutes, Watson arrived at the proper diagnosis of a rare form of leukemia, after the patient's doctors at the University of Tokyo had been stumped for months (David, 2016).

The power of Watson offers tremendous value for content analysis in general, as it is able to process both structured and unstructured data, like human speech. It uses three different kinds of standard facets to search for concepts or themes. When we

uploaded our 38,000 reviews, Watson analyzed the content based on (1) parts of speech, including the nouns, verbs, and adjectives that employees used; (2) sequences of words in a sentence and phrase constituents; and (3) sentiment, separating positive and negative expression and phrases. Watson then computed correlations between each of the processed filters, and calculated the frequency of each. For example, when looking for a modified noun such as "great workplace," Watson showed the correlations and frequencies between "great workplace" and "great pay," "great environment," and "great benefits" across all user-generated reviews. Watson also looked at facet pairs such as "great pay" and positive sentiments, as well as many more combinations.

#### 5. Seven employer branding value propositions

Our Watson analysis confirms the original dimensions (i.e., functional, psychological, and economic) discussed by Ambler and Barrow (1996) and the five value propositions (i.e., social, interest, application, development, and economic) offered by Berthon et al. (2005). Our work further uncovers two additional value propositions (i.e., management and work/life balance) that employees on crowdsourced employer branding sites care about today. In other words, when employees on Glassdoor contemplated whether an organization was a great or a bad place to work, they generally considered a total of seven employer branding value propositions (see Figure 1). Each of these is discussed next.

Figure 1. Seven employer branding value propositions

SEVEN EMPLOYER BRANDING VALUE PROPOSITIONS						
SOCIAL VALUE	INTEREST VALUE	APPLICATION VALUE	DEVELOPMENT VALUE	ECONOMIC VALUE	MANAGEMENT VALUE	WORK/LIFE BALANCE
						
Is this a fun place to work with talented people and a great organizational culture?	Is this an interesting place to work, with challenging but achievable goals?	Is the work meaningful and does it invite the application of knowledge and skills?	Are there opportunities for employees to grow and advance professionally?	Is work rewarded appropriately through salaries, benefits and perks?	Are managers good, honest leaders who inspire, trust, protect, enable and respect employees?	Are work arrangements flexible enough to achieve success on and off the job?

### 5.1. Social value

Comments related to the social value of work were largely emotional. People care deeply about the enjoyment they gain from a positive work atmosphere; coworkers who are fun and collegial, and who share similar values; a team approach to problem solving; and a people-focused organizational culture.

### 5.2. Interest value

Reviewers assessed how interesting work is based on the degree to which it requires novel work practices and an innovative mind in order to complete challenging but achievable tasks.

### 5.3. Application value

Referring to application value, Glassdoor user comments suggested that employees desire to put their know-how and skills to meaningful and considerate use. Examples of this include teaching opportunities and providing superior benefits to customers.

### 5.4. Development value

User reviews addressing development value captured the degree to which an employer recognizes employees' contributions and provides opportunities for professional development and career advancement.

### 5.5. Economic value

Comments related to economic value were mainly concerned with compensation. Individuals focused on economic value were not only attentive to pay, but also to benefits such as healthcare, pension contributions, job security, and other quantifiable perks.

### 5.6. Management value

Comments related to the management value proposition suggested that employees do not leave or stay at a workplace because of their companies; rather, they leave or stay because of their bosses. The influence of good and bad superiors at work is tremendous. Truly positive and negative experiences spill into employees' leisure time and affect their relationships with friends and family.

### 5.7. Work/life balance

When people commented on work/life balance, they emphasized not only their desire to identify

with the organization, but also their identity as more than just an employee. They have 'outside selves' (Carroll & Levy, 2010). A proper work/life balance allows people to manage their work in harmony with all their other identities (e.g., parent, friend, traveler, club member) without conflict or stress.

## 6. Valences and weights of employer branding value propositions

While all seven value propositions matter to existing, former, and potential employees, not all matter to the same extent. In terms of their valences, employees posting on Glassdoor either praised how attractive value propositions were in their firms (i.e., positive valence) or shared their aversion through complaints (i.e., negative valence). Furthermore, the number of times the individual value propositions were mentioned across all 38,000 reviews—either in a positive or a negative light—indicated their relative weights, which in turn allowed us to rank them in order of importance. Figure 2 illustrates these results.

The first observation from this matrix is that each quadrant is unique. Employees cared about different values when they commented on the highest and lowest ranked places to work, and emphasized different value propositions when they praised or complained about them. The second observation is that the top two or three value propositions account for 65% to 83% of people's comments in each quadrant, suggesting that these values alone make up the lion's share of what employees care about in places of work. Together, these two observations reveal 'praise factors' (e.g., the social value proposition) that attract people and turn them into loyal employees. They also point to 'complaint factors' (e.g., the management value proposition) that are the main reasons people leave companies. This ranking process reveals that some value propositions are simply not regarded highly. Development, for instance, was hardly mentioned.

## 7. Managerial implications of employer brand intelligence

The purpose of our study involved detailing what current, former, and potential employees care about when collectively evaluating workplaces. The reviews/comments we collected from Glassdoor revealed that when people assess the attractiveness of companies, they rely on seven value

Figure 2. Valences and weights of employer branding value propositions

	Praises	Complaints
<b>Best places to work</b>	Social (35%) Interest (23%) Economic (16%) Application (14%) Work/Life Balance (9%) Development (3%)	Interest (31%) Economic (31%) Work/Life Balance (21%) Social (9%) Application (5%) Management (3%)
<b>Worst places to work</b>	Work/Life Balance (29%) Application (24%) Social (20%) Economic (13%) Interest (10%) Development (4%)	Economic (38%) Management (30%) Application (8%) Interest (7%) Social (7%) Work/Life Balance (6%) Development (4%)
	↑ This is why people come and stay!	↑ This is why people leave!

propositions of employer branding. Further, the importance of these value propositions differs vastly depending on whether employees are praising or complaining about their employers, and on whether the companies in question are the most or least attractive employers. We refer to these crowdsourced, data-driven insights as *employer brand intelligence*. For the employing firm, employer brand intelligence raises seven main managerial implications. These are detailed next.

### 7.1. Understand industry idiosyncrasies

The choice of the top and bottom employers in our study was deliberately industry-overarching. To show general priorities, it included companies from large multinationals, spanning such industries as travel and tourism, business services, IT, real estate, retail, healthcare, and food manufacturing; thus, the findings are general in nature. However, each industry has its own characteristics and employees likely possess industry-specific employment priorities. For example, companies operating in the IT industry, with its demand for highly skilled and loyal employees, probably treat their personnel differently than companies operating in the hospitality industry, with its churn and seasonal labor fluctuations. As such, managers are advised to collect data specific to their own industries and sectors. Glassdoor is the current market leader for this kind of information, but managers might need to consider other crowdsourced employer branding

platforms to capture what their employees value most.

### 7.2. Understand the value of employer brand intelligence

Data culled from crowdsourced employer branding sites can have a tremendous impact on solving existing personnel problems or even avoiding them in the first place. The importance of such data and employer brand intelligence, however, differs not only from industry to industry but also firm to firm. Companies that suffer from churn and that spend much of their time and money on hiring and training are often not seen as great places to work. The employer brand intelligence gathered from crowdsourced employer branding sites promises more value to these firms than to those companies that benefit from very loyal employees. Even for highly ranked workplaces, though, employer brand intelligence can provide important insights regarding what their employees like and dislike. In turn, this information can shed light on opportunities for improving working conditions further, attracting high-caliber employees, and creating a more productive work environment in general.

### 7.3. Create an employer attractiveness spectrum

Most companies do not score at the extremes; they are neither the best nor the worst employers, and

fall somewhere in between on the spectrum of employer attractiveness. Creating an employer attractiveness spectrum (like [Table 1](#)) based on crowdsourced employer branding data can generate previously unattainable insights into the scores all industry competitors receive from their employees. This not only shows which firms score highest and lowest, but also the relative positioning of all other companies on the spectrum.

#### 7.4. Use employer brand intelligence to build competitive advantage

Understanding an industry's employer attractiveness spectrum also allows managers to gain insight regarding which value propositions employees in their industry care about, and the relative weights of these. Comprehending the valences and weights of employer branding value propositions ([Figure 2](#)) yields awareness of what top performing companies in any given industry do well (i.e., what makes them the best places to work) and what bottom performers do so poorly (i.e., what makes employees no longer want to work for them). Computing relative scores for all companies on the spectrum permits managers to compare their firm's performance with that of its direct competitor(s). In other words, understanding the priorities of employer branding value propositions allows managers to better compete for employees.

#### 7.5. Automate, automate, automate—or outsource

Scraping tens of thousands of reviews off Glassdoor is not an easy undertaking. The site currently does not allow bots to run automated tasks (i.e., scripts) with which one could simply copy employees' reviews. To overcome this hurdle, we developed a semi-automatic workaround that required us to subdivide the companies manually and start the automatic scraping processes by hand. Collecting all 38,000 reviews took approximately 8 hours, only because the main work was completed without human involvement. Likewise, we relied on IBM Watson for the content analysis of all reviews. Automating the processes of data collection and analysis is key to managerial understanding of what employees care about, as is automating when these processes take place. In comparison, following the rise of social media, dashboards (e.g., Hootsuite, Radian6) were developed that allowed managers to receive automatic alerts when people posted comments about their firms, brands, and/or offerings. While such a tool does not yet exist for employer brand intelligence, it is highly probable

that crowdsourced employer branding platforms like Glassdoor will soon offer value-added employer brand monitoring services to firms. It is also conceivable that consulting firms will use processes similar to the ones we employed to offer employer brand intelligence services.

#### 7.6. Trust the data, but verify

Using real-world data to rank all industry competitors and to reveal the relative weights of each of the seven employer branding value propositions ([Figure 1](#)) allows firms to focus on what truly matters to employees. It must be understood that the relative importance of value propositions is gauged solely on the basis of praises and complaints. Further analysis is required to discern which are true motivators that give positive job satisfaction and which are hygiene factors ([Herzberg, Snyderman, & Mausner, 1966](#)) that provide neither positive satisfaction nor higher motivation, but which create dissatisfaction if absent. For the former, increasing the praised elements of work and decreasing the ones employees complain about will likely improve job satisfaction. For the latter, this is not necessarily true. In our dataset, very few reviews focused on professional development, either positively or negatively. Rather than assuming this means employees do not care about their professional development, this relative score suggests further verification is required before any resource reallocation takes place.

#### 7.7. Make employer branding part of corporate strategy

The existence of crowdsourced employer branding platforms offers firms the tremendous opportunity to not only become better places to work, but also to market themselves as such. They allow today's managers to pay closer attention to what employees are saying about the company, and first movers are likely to benefit from the employer brand intelligence they gather. These firms will experience improved employee satisfaction and be able to attract high-quality candidates away from the competition. As with any competitive advantage, however, other companies are sure to follow suit. Firms will not only look at the performance of their own brand, but also keep track of competitors on the employer attractiveness spectrum. Of course, employee accounts of companies are dynamic rather than static assessments of how value propositions matter over time. Thus, monitoring one's own and the competition's employer brands should be more than a one-off exercise, and instead become part of the firm's

ongoing employment and competitive analysis strategies.

## 8. Summary

In the field of marketing, it is generally agreed that it is much more expensive to acquire a new customer than it is to keep an existing one (Blattberg & Deighton, 1996). The same logic applies to the field of personnel management: It is cheaper to keep an employee than to replace one. Writing job descriptions, posting positions, reviewing applications, interviewing, hiring, and training candidates all represent substantial investments of effort, cost, and time. Churn also negatively impacts employee collaboration, workflow, and morale (Shaw, 2011). To avoid such problems today's managers can make sense of the data available on crowdsourced employer branding platforms.

The study described herein contributes to the conceptual understanding of employer branding. In this article, we investigated crowdsourced employer branding platforms in light of new technological capabilities. We presented seven value propositions for employer branding (social, interest, application, development, economic, management, and work/life balance) that individuals care about when evaluating places to work. We outlined the important difference between true motivators and hygiene factors, which we believe will be an important area of future study to forward our understanding of crowdsourced employer branding. We demonstrated to practitioners how data mining of employer branding sites allows managers to understand how attractive their firms are to employees, especially vis-à-vis other firms in the industry. We also introduced important tools (i.e., the employer attractiveness spectrum in Table 1, the seven employer branding value propositions in Figure 1, and their relative valences and weights in Figure 2) that led to seven considerations for managers interested in using employer brand intelligence to develop competitive advantage.

## 9. Aims and further research

This article is intended to be thought-provoking and to alert managers to the rising phenomenon of crowdsourced employer branding. It does not aim to give specific advice on how to improve each value proposition (e.g., how a company could become more social, how to pay employees to increase job satisfaction). Other articles address these issues.

Another goal of this article entails laying the foundation for a number of future studies. For instance, we used companies across industries to illustrate our points. Going forward, we recommend looking at specific employer types (e.g., those with requirements for rare skills, as in the IT sector) and those that need more readily available skills (e.g., in the hospitality industry). Likewise, we considered only large companies for this study, and it would be interesting to investigate how smaller companies compare. Further research should perform a more granular data analysis and determine which value propositions individual respondents praise and complain about. Finally, we encourage future studies to explore what motivates employees to provide feedback on crowdsourced employer branding sites; this may prove especially valuable to smaller firms and those that do not have enough reviews for a meaningful analysis of the employer brand.

We are optimistic that this article will inspire fellow researchers and practitioners to pay close attention to crowdsourced employer branding. Hopefully, our work will encourage other researchers to advance the understanding of what employees care about when they evaluate organizations and motivate employers to think more about what it takes to become great places to work.

## References

- Ambler, T., & Barrow, S. (1996). *The employer brand*. *Journal of Brand Management*, 4(3), 185–206.
- Barrow, S., & Mosley, R. (2011). *The employer brand: Bringing the best of brand management to people at work*. Hoboken, NJ: John Wiley & Sons.
- Berthon, P., Ewing, M., & Hah, L. L. (2005). Captivating company: Dimensions of attractiveness in employer branding. *International Journal of Advertising*, 24(2), 151–172.
- Blattberg, R. C., & Deighton, J. (1996). Manage marketing by the customer equity test. *Harvard Business Review*, 74(4), 136–144.
- Carroll, B., & Levy, L. (2010). Leadership development as identity construction. *Management Communication Quarterly*, 24(2), 211–231.
- David, E. (2016, August 5). Watson correctly diagnoses woman after doctors were stumped. Retrieved from <http://siliconangle.com/blog/2016/08/05/watson-correctly-diagnoses-woman-after-doctors-were-stumped/>
- Demirkan, H., & Delen, D. (2013). Leveraging the capabilities of service-oriented decision support systems: Putting analytics and big data in cloud. *Decision Support Systems*, 55(1), 412–421.
- Herzberg, F., Snyderman, B. B., & Mausner, B. (1966). *The motivation to work* (2<sup>nd</sup> ed.). Hoboken, NJ: Wiley & Sons.
- High, R. (2012). *The era of cognitive systems: An inside look at IBM Watson and how it works*. Armonk, North Castle, NY: IBM Corporation.
- Kietzmann, J. H. (2017). Crowdsourcing – A revised definition and an introduction to new research. *Business Horizons*. In this issue.

- Kietzmann, J. H., & Canhoto, A. (2013). Bittersweet! Understanding and managing electronic word of mouth. *Journal of Public Affairs, 13*(2), 146–159.
- Kietzmann, J. H., Hermkens, K., McCarthy, I. P., & Silvestre, B. S. (2011). Social media? Get serious! Understanding the functional building blocks of social media. *Business Horizons, 54*(3), 241–251.
- Kietzmann, J. H., Silvestre, B. S., McCarthy, I. P., & Pitt, L. F. (2012). Unpacking the social media phenomenon: Towards a research agenda. *Journal of Public Affairs, 12*(2), 109–119.
- Lloyd, S. (2002). Branding from the inside out. *Business Review Weekly, 24*(10), 64–66.
- Minchington, B. (2010). *Employer brand leadership: A global perspective*. Mile End, SA, Australia: Collective Learning Australia.
- O'Reilly, T. (2007). What is Web 2.0: Design patterns and business models for the next generation of software. *Communications and Strategies, 65*, 17–24.
- Shaw, J. D. (2011). Turnover rates and organizational performance review, critique, and research agenda. *Organizational Psychology Review, 1*(3), 187–213.
- Ventura, M. (2013). Which is the best employer review site? [Glassdoor vs. the Contenders]. Retrieved from <http://theundercoverrecruiter.com/employer-reviews/>