

Translating emotional insights from hospitality employees' comments

Using sentiment analysis to understand job satisfaction

Translating
emotional
insights

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Lisa M. Young and Swapnil Rajendra Gavade
School of Hospitality Leadership, DePaul University, Chicago, Illinois, USA

Abstract

Purpose – The purpose of this paper is to use the data analysis method of sentiment analysis to improve the understanding of a large data set of employee comments from an annual employee job satisfaction survey of a US hospitality organization.

Design/methodology/approach – Sentiment analysis is used to examine the employee comments by identifying meaningful patterns, frequently used words and emotions. The statistical computing language, R, uses the sentiment analysis process to scan each employee survey comment, compare the words with the predefined word dictionary and classify the employee comments into the appropriate emotion category.

Findings – Employee responses written in English and in Spanish are compared with significant differences identified between the two groups, triggering further investigation of the Spanish comments. Sentiment analysis was then conducted on the Spanish comments comparing two groups, front-of-house vs back-of-house employees and employees with male supervisors vs female supervisors. Results from the analysis of employee comments written in Spanish point to higher scores for job sadness and anger. The negative comments referred to desires for improved healthcare, requests for increased wages and frustration with difficult supervisor relationships. The findings from this study add to the growing body of literature that has begun to focus on the unique work experiences of Latino employees in the USA.

Originality/value – This is the first study to examine a large unstructured English and Spanish text database from a hospitality organization's employee job satisfaction surveys using sentiment analysis. Applying this big data analytics process to advance new insights into the human capital aspects of hospitality management is intriguing to many researchers. The results of this study demonstrate an issue that needs to be further investigated particularly considering the hospitality industry's employee demographics.

Keywords Job satisfaction, Sentiment analysis, Human resources, Hispanic employees, Hospitality employees, Latino employees

Paper type Research paper

Introduction

With the blurring of geographical boundaries, international labor mobility and employee demographic shifts, diversity management has assumed an important role in hospitality operations (Manoharan and Singal, 2017). In this study, sentiment analysis is used to explore an important but overlooked stakeholder group, Latino hospitality employees. US inhabitants whose origins are from Mexico, Puerto Rico, Cuba, Central and South America and other Spanish-speaking countries are referred to as Latinos (Pew Research Center, 2016). The term Latino is thought to be more encompassing than the term Hispanic, as it considers the indigenous cultures of those countries, people of different racial groups, and people from Portuguese-speaking countries, such as Brazil (see Leiva, 2012 for a detailed discussion of



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the nomenclature of Hispanic and Latinos in the USA). For the purposes of this study, the term Latino is used to describe male and female members of this group. Immigrant Latino is used to describe those who were not born in the USA and have migrated to the USA.

The sentiment analysis approach to collecting and analyzing a large data set of text to gain insight into real-life problems is now at a new level of breadth, depth and scale (Xiang *et al.*, 2015; Ye *et al.*, 2009). Analyzing large amounts of text data has opened the door to numerous opportunities for developing new knowledge that reshapes our understanding of the hospitality industry and the ability to support improved decision making in the field. Prior academic studies on text mining of hospitality companies have been based on consumer comments from blogs and/or social media feeds (Kasper and Vela, 2011; Xiang *et al.*, 2015; Ye *et al.*, 2009). Yet, applying a sentiment analysis approach to analyzing hospitality employee comments has yet to be attempted in academic research. Therefore, to bridge this gap, sentiment analysis was chosen as the method of analysis to analyze a large data set of employee satisfaction comments in this study.

The top hospitality human resources research topics include training, job satisfaction and employee development (Singh *et al.*, 2007; Thomas *et al.*, 2014). There is, however, a dearth of research on the topic of diversity management in the hospitality academic literature even though diversity is an increasingly important issue to the hospitality industry (Madera, 2013; Manoharan and Singal, 2017). Additionally, US immigration reform is on center stage and has been elevated to one of the top contemporary issues in human resource management (Hass, 2013). The purpose of this study is to examine employee job satisfaction comments from a hospitality resort organization to explore which factors impact job satisfaction, with an in-depth analysis of comments written in Spanish from employees working in a primarily English-speaking hospitality organization. Therefore, the current study contributes to the existing literature by better understanding important job satisfaction factors from the viewpoints of all employees, not just those who communicate in English. The findings of this study will increase awareness of the challenges that Spanish-speaking employees have in the US workplace and spur future research in this important and under researched topic area.

Literature review

Employee job satisfaction factors

Job satisfaction is an emotional state that results from an employee's appraisal of his or her job and the related job experiences (Madera *et al.*, 2013). High levels of employee job satisfaction have been linked to increases in job performance and job commitment, which in turn are significant predictors for positive hospitality financial results. Low levels of job satisfaction have been associated with negative outcomes, such as reduced job motivation and job performance. Madera *et al.* (2017) identified six research streams from two decades of strategic human resources research in hospitality and tourism, which was used to form a conceptual model for future research on strategic human resources management. The model addresses how human resources strategy influences employee measures (such as employee satisfaction) that in turn influences operational measures (such as workforce turnover), and lastly influences financial measures (i.e. profit).

Research that reviewed three decades of hospitality employee job satisfaction studies identified four categories of factors that impact job satisfaction: financial rewards, job training and career development, supervisor support and working conditions (Thomas *et al.*, 2014). Because of the multiple variables involved and the context of the hospitality firm within the economy at micro and macro levels, a consistent list of individual job satisfaction variables or a consistent scale for assessing job satisfaction levels has not been identified that ensures hospitality employee satisfaction (Thomas *et al.*, 2014). Yet researchers continue to search and identify job satisfaction variables and how to quantify them in hopes of finding a dependable formula to improve workplace performance.

Employee diversity's impact on hospitality organizations

Manoharan and Singal's (2017) review of 20 years of hospitality research advanced the notion that a diverse workforce is a meaningful variable necessary for profitable financial performance. Diversity management is a human resources strategy used to create an inclusive and diverse workplace. Diversity management initiatives enhance an organization's culture and recruitment efforts, primarily through elevated rates of employee morality and retention. Consistent with this rationale, gender and ethnic discrimination has been correlated with lower job dissatisfaction (King *et al.*, 2012). Yet academic publication trends point to fewer diversity management studies in the hospitality and tourism literature when compared to the general management literature (Manoharan and Singal, 2017; Singh *et al.*, 2007), an obvious gap where additional research is needed. More specifically, most academic studies tend to focus primarily on the gender aspects of diversity and do not address aspects of ethnic diversity (Singh *et al.*, 2007; Sourouklis and Tsagdis, 2013). With immigration reform a hotly debated issue in American politics, immigration-related employment discrimination, an area that was traditionally overlooked by human resources managers, is becoming a more closely monitored issue (Hass, 2013). Therefore, it is vital for academics to study and address this issue in order to determine and support best practices in this area.

While diversity management may be lacking in academic hospitality research, it is in the forefront for many hospitality organizations as revealed in an investigation of best practices from top service organizations identified by Diversity (Madera, 2013). The seven major diversity management initiatives that all top-ranking service corporations used were: a corporate diversity council, cultural awareness programs, supplier diversity, support for women's development and retention, same-sex benefits and programs for lesbian, gay, bisexual and transgender employees, diversity training and employee networking and mentoring. Diversity, top award for 2010 went to the hospitality organization Sodexo. Additional award-winning hospitality organizations identified were Marriott International, MGM Mirage and the Walt Disney Company, adding to the evidence that the hospitality industry has the potential to be the leading industry in diversity management practices. In 2018, Marriott, Hilton, Aramark and the Walt Disney Company were the hospitality companies awarded in the top 50 organizations for diversity (Diversity, 2018). These companies' diversity practices were found to improve employee job satisfaction rates, decrease workforce turnover rates and increase the workforce's diversity companywide (Madera, 2013).

The 2017 issue of the Latina Style 50 Report of the 50 best companies for Latinas to work for in the USA included Marriott International (ranked #3), Wyndam Worldwide (ranked #18) and Hyatt Hotels (ranked #30) (Martinez, 2017). The principle areas of evaluation are the number of Latina executives, Latina retention, mentoring programs, educational opportunities, alternative work policies, employee benefits, women's issues, job retraining, affinity groups and Hispanic relations. This annual report, which involves an exhaustive search of the most prominent US corporations, sets the standard for identifying corporations that are providing the best career opportunities for Latinas in the country (Martinez, 2017).

Noting that the hospitality industry is one of the largest employers of minority and immigrant employees, Madera *et al.* (2013) posited that most hospitality managers would have superior skills for managing a multicultural workforce, yet the researchers discovered that there was an absence of studies examining the topic. Therefore, they investigated the impact that role ambiguity and role conflict had on 130 hotel managers' job satisfaction. A key finding was that role conflict occurred when incompatible expectations from work colleagues made it difficult to complete a job role. Role ambiguity arose when vague, unclear and/or uncertain expectations were associated with completing a job role. Role conflict and role ambiguity obstructed employees' ability to successfully complete work tasks, resulting in anxiety, stress and negative emotions that threatened the employees' perceptions of self-efficacy (i.e. the workers' belief in their ability to successfully complete their work tasks).

Further, Madera *et al.*'s (2013) investigation revealed that managers who perceived negative, hostile or indifferent diversity climates from their multicultural workforce often reported higher levels of role ambiguity and role conflict combined with lower levels of job satisfaction for several reasons. First, manager-to-subordinate miscommunication often transpired due to multicultural language barriers or subtle cultural cues. Second, this language and cultural miscommunication led to role ambiguity for managers because they were concerned that their expectations were not fully understood by their subordinates, particularly when managers relied on coworkers to translate job information to subordinates. Third, a perceived negative diversity climate often resulted due to distrust, conflict and lower levels of organizational commitment among employees, which decreased managers' job satisfaction. Managers who created a positive diversity climate by communicating in their employee's native language and were knowledgeable in multicultural skills reported less role ambiguity and role conflict, resulting in higher job satisfaction levels. Although the Madera *et al.* (2013) study only examined this issue from the managers' perspectives, it can be assumed that the issues of role ambiguity and role conflict affect non-managerial employees as well.

Latino employees in the US hospitality workplace

Despite Latinos ranking as the largest and fastest growing segment of the workforce in the USA, there is limited research on job satisfaction among Latinos specifically in the hospitality workforce (Cho *et al.*, 2013). The demographics of the American workforce have been steadily changing over the past 50 years. Using US census data, the Pew Research Center (2016) has identified that the Latino percentage of the US population has steadily expanded from 3.5 percent (6.3m) in 1960 to 17.3 percent (55.3m) in 2014. While the Latino population growth remained flat between 2016 and 2017, Latinos still represent the fastest growing ethnic group, accounting for 1.1m (51 percent) of the US population's growth of 2.2m people between 2016 and 2017. Their average age is almost a decade younger than the average age of non-Latinos; therefore, Latinos are on track to constitute over a quarter (28.6 percent) of the nation's workforce by 2060. If current population trends continue, future immigrants and their US-born children are projected to comprise 88 percent of the US population growth between 2015 and 2065, with Latinos playing a significant role in diversifying the future workforce of the USA (Pew Research Center, 2016).

Latino workers comprise 25 percent of the workforce in food preparation and service-related occupations, one of the largest occupational employment categories in the USA (Bureau of Labor Statistics, 2015). This is a higher percentage than the workplace average of a 16 percent rate of employees who are Latino out of the total 146m employed people in the USA. A study conducted in three rural US communities identified that 34 percent of the Latino respondents working were employed in physically labor-intensive line-level jobs for hospitality organizations, primarily hotels and food preparation (Valdivia and Flores, 2012). If, as noted above, ethnic discrimination is correlated with job dissatisfaction, then this growing Latino presence in the US hospitality industry suggests that traditional human resources employee behavior assumptions and expectations need to be adjusted for the growing workforce diversity, particularly in the hospitality industry.

Despite their growing presence to the makeup of America's workforce, when it comes to being identified as an American, Latinos are still perceived as less American than their Caucasian counterparts (Leiva, 2012). Some researchers have stressed that lower levels of English fluency, educational attainment and socioeconomic status often limit Latinos to working in lower-wage occupations (Eggerth *et al.*, 2012; Shinnar, 2007; Valdivia and Flores, 2012). In particular, lower levels of English proficiency act as the most significant barrier to improved employment positions, as the nonfluent employees are placed in back-of-house positions, such as hotel housekeeping and restaurant kitchen positions, where they do not interact with English-speaking guests. These back-of-house jobs are often difficult and

dangerous due to the strength of the commercial cleaning chemicals and heavy equipment, combined with needing to maintain a fast pace during the time constraints of an employee shift. Studies have identified an unacceptable range of discrimination, exploitation and harassment by employers but economic necessity and Latino cultural values push them to be resilient by adapting to their adverse work circumstances (Eggerth *et al.*, 2012; Guerrero and Posthuma, 2014; Shinnar, 2007; Valdivia and Flores, 2012).

Sentiment analysis as a research method for understanding employee satisfaction

Prior academic studies on text mining of hospitality companies have been based on text from consumer blogs and/or social media feeds, with the focus on the consumers' comments (Kasper and Vela, 2011; Xiang *et al.*, 2015). The text mining process of decoding subjective text uses the Natural Language Process and Artificial Intelligence concept known as sentiment analysis (Liu, 2012; Xiang *et al.*, 2015). Sentiment analysis examines subjective statements from user-generated content, with the goal of detecting the attitude expressed in the text by determining its polarity into positive, negative or neutral classification (Liu, 2012). An additional step sorts the text into different emotions based on the content in each sentence or comment. The results are then used to make informed decisions on real-life problems, such as predicting consumer behaviors and trends, from the comments gathered from the consumers' online content.

Sentiment analysis has expanded beyond marketing applications to workplace issues. Companies such as Twitter, IBM and Intel have recently started using sentiment analysis to take a pulse on how their own employees feel about their jobs, giving management the chance to pinpoint problems that they may not have known otherwise existed (Waddell, 2016). For example, Twitter sends employee surveys with several open-ended questions to a portion of its workforce monthly. Sentiment analysis is used to analyze answers, resulting in patterns that are shared with executives. IBM has been analyzing global employee posts on the company's internal social networking platform, which has similar functions to Dropbox, Facebook and Wikipedia, that allows employee group collaboration. IBM uses an internally developed sentiment analysis tool to monitor posts within the platform to identify trends and red flags, with results helping improve the workplace, such as an updated employee performance review system based on employee comments suggesting ways to make the review system a better tool for their employees' needs (Waddell, 2016).

Another popular sentiment-analysis application for the workplace is used to analyze potential employee turnover (Schrage, 2016). The sentiment analysis software identifies unusual words and/or communication frequency by employees to other employees or employees to key account employees. When the company gets an alert on individuals or employee teams who might be considering leaving, the company has the data to decide what might to be done to retain them or steps to improve the workplace, such as shifting deadlines or rotating out an incompatible colleague.

Research questions

The main objective of this study is to use sentiment analysis to understand employee job satisfaction from the unstructured comments of a resort company's employee job satisfaction survey. Specifically, the following topic areas are explored:

- RQ1. What emotions are the most prevalent in all employee comments?
- RQ2. What are the emotion differences between responses written in English vs those written in Spanish?
- RQ3. What are the emotion differences between responses written in Spanish for:
(a) front-of-house vs back-of-house employees? (b) those employees having a male supervisor vs a female supervisor?

The current study is exploratory in nature, as no past studies were found that analyzed hospitality employees' job satisfaction comments.

Methodology

Data collection

Previous sentiment analysis and text mining studies in the hospitality and tourism field have focused on companies' social media feed and/or blogs to capture the organization's reputation from the perspective of the consumer stakeholder groups. This study examines the unstructured text responses from a US resort company's important stakeholder group, their employees. This annual company-created employee survey was distributed to the entire employee population to determine employee job satisfaction levels with their supervisor, department, resort and the parent company. At the end of the survey there was unlimited space for employees to leave comments on their satisfaction with their supervisor, department, resort property and/or the parent company. Similar surveys with this organization's employees had been administered internally in previous years. At the end of this survey period, 986 usable surveys were completed and given to the researcher with all individual employee identification removed.

Each of the three US resorts within the company contains 300–400 hotel rooms, several quick- and full-service restaurants, an extensive pool area, a full-service spa, an 18-hole golf course and event space. Further information about the hospitality organization and the individual resorts is not available for publication to ensure anonymity of the company and its employees. Access to a company's human resources data is traditionally difficult to obtain due to company restrictions that are put in place to protect employees and/or the company from information that could potentially attract negative public exposure or inadvertently put the company at a competitive disadvantage.

The hospitality resort company's goal for contacting the researcher was to increase insight into why the resorts had decreased levels of guest satisfaction ratings, occupancy rates and revenues. Due to the large number of individual employees responses, the hospitality resort company suggested that the researcher analyze the employee qualitative comments to identify problem areas along and to include suggestions for potential solutions. Because there were nearly 1,000 employee comments, with less than 10 percent of the comments written in Spanish, the company contact suggested that the researchers ignore the Spanish comments with the goal of saving time for the text analysis to be returned quickly. The company had not analyzed the Spanish comments in previous years and did not see the need to do so this year as the majority of their Spanish-speaking employees worked in the back-of-the-house and rarely interacted with the customers, and therefore, they felt did not directly impact their resorts' service levels.

Data analysis

Once the data were received from the company, the first step of analysis process was to identify and count all unique words contained in the text from all employee comments, both English and Spanish. This initial word bank contained words with high frequencies and decreased to multiple words with a frequency of one. Spanish words, such as "que" and "los," showed up as frequent words in the word bank (see Figure 1) with approximately; 10 percent of the employee comments identified as words in Spanish. Therefore, the researcher had the Spanish comments translated into English by a professor who is fluent in both Spanish and English. This word bank of translated Spanish comments resulted in 2,682 words. These Spanish comments translated into English were added back to create the final word bank that was now comprised of only English words. A new column in the data was created to designate employees whose comments were initially in Spanish to use in the comparison analysis. This combined word bank resulted in 27,716 words from all employee comments, both English and

Polarity of employees' comments

To conduct the polarity text analysis, a second word bank consisting of the Spanish comments translated into English combined with the English comments was used. From this second word bank, a word cloud was created to represent the negative and positive words expressed by the entire resort workforce, as seen in Figure 2.

Sentiment analysis of employees' comments

Next, bar charts were created to identify the frequency of each emotion category to gain a better understanding of the employees' sentiments. See Figure 3. Sentiments with less than 1 percent were not included in the figures. The strongest sentiment, by a large margin, expressed in the entire workforce word bank is "joy," represented by 82 percent of the comments, with employees sharing their appreciation of positive work experiences or providing positive suggestions to improve the customer experience at the resorts.

The second strongest emotion is "sadness," found in 10 percent of the comments with many employees somber about their pay and/or areas of the resort that needed repair. The remaining emotions are "anger" (3 percent), "disgust" (2 percent), "fear" (2 percent), and "surprise" (1 percent). This sentiment analysis bar chart serves as the baseline of the ranges of emotions experienced by the entire workforce.

Examples of employee comments from the open text section of the job satisfaction survey and how each comment was coded via the sentiment analysis process are included in Table I.

Analysis of Spanish comments

To identify differences between employee comments written in English and those in Spanish, further analysis was made using only the Spanish comments translated into English to create a bar chart identifying emotions over 1 percent (Figure 4).

For comparison, the sentiment percentage breakdown of the English-only comments is found in Figure 5.

The Spanish comments translated in English results (Figure 4) point to a higher percentage for sadness (66 percent) and anger (21 percent) and a much lower percentage for joy (13 percent) than the results of the English-only word bank (Figure 5). The majority of the Spanish



Figure 2.
Word cloud
of employees'
negative and
positive comments

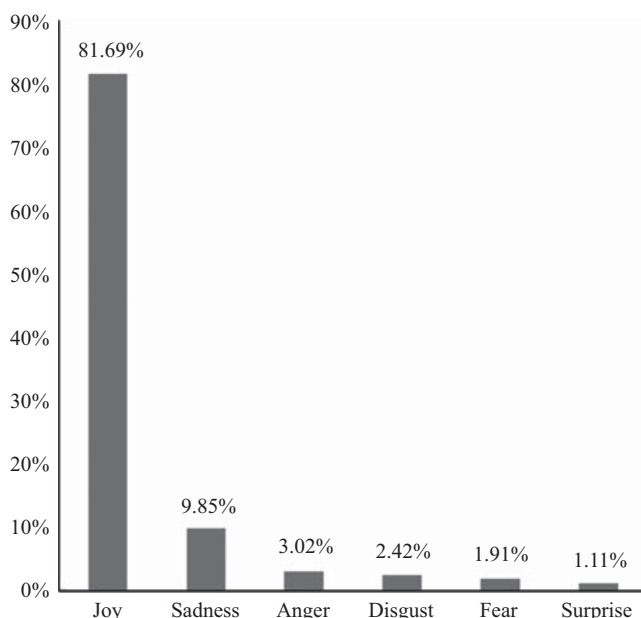


Figure 3.
Sentiment intensity by
emotion category
word count from all
employees' comments

comments are skewed toward the negative emotions of sadness and anger while the English comments are skewed toward the positive emotion of joy. Clearly, the Spanish-speaking employees have a completely different work experience than those who speak English.

For the comments written in Spanish (and translated into English), the comments categorized as sadness are requests for higher pay, calls for improved employee benefits (health, child daycare and employee dining room meals), and pleas to fix items seen as potential hazards to guests. Examples of comments categorized as anger refer to requests for supervisors to respect their work contributions and their frustration that past survey comments have been ignored as they have seen no improvements based on their previous years' suggestions from these annual employee surveys. Positive comments from comments written in Spanish relating to joy include positive teamwork with fellow department employees and suggestions for improving the resort's amenities and/or marketing promotions.

Analysis of front-of-house vs back-of-house employee comments written in Spanish

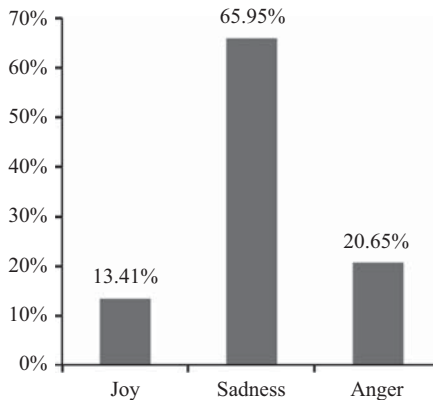
To identify differences between employee comments from front-of-house vs back-of-house that were written in Spanish, further sentiment analysis was conducted using the Spanish comments translated into English to create a bar chart representing the top three emotions of front-of-house (Figure 6) and back-of-house (Figure 7) employee groups.

The front-of-house employee (Spanish comments) results have three top emotions, in descending numerical order, as sadness (85 percent), anger (11 percent) and joy (3 percent). The back-of-house employees' (Spanish comments) top emotions are anger (54 percent), sadness (37 percent) and joy (9 percent). In comparison, the front-of-house employees express a higher percentage of sadness at 85 percent to the back-of-house employees at 37 percent, while the back-of-house employees express anger more frequently at 54 percent in comparison to 12 percent of the front-of-house employees. Joy ranks low for both groups with front-of-house employees having a lower percentage of joy at 3 percent in comparison to the back-of-house employees at 9 percent. The results for "joy" in Figure 6 are especially marked when compared with its prevalence in comments written in English at 86 percent (Figure 5).

Employee comments	Emotion
There are too many people doing nothing that causes other workers to work twice as hard for what little compensation they may receive. I want to work at a place where I have equality with my peers and am recognized for my accomplishments and not judged by my race or the practices of others who are less motivated	Anger
Our uniform shirts are hot and uncomfortable to wear. They look good but the material is 100% polyester. If a shirt were to catch fire, it would stick to the skin because it is basically plastic	Anger
Pay me more! Ten dollars and 25 cents is shit pay for all the manual labor I have to do [...] and I do my job with perfection!	Anger
Our hotel is still dirty, especially the rest rooms. They clean some of it, but not all. The carpet is really bad and the elevators in the parking garage are messy. In fact, I have seen the same mess stay for 3 days before it's cleaned	Disgust
The employee dining room is filthy and the food items look and taste cheap	Disgust
One of the supervisors is a pervert and makes unnecessary comments to female employees. This makes us feel very uncomfortable and unsafe	Fear
We should never have to be afraid of our head and asst. head chef when they do their walk through. We can't trust them even if they pretend to be nice, we still feel insecure. We have concerns about how employees are being treated unfairly on their work by their supervisors or managers. Recently there have been mysterious terminations that have me and a lot of people I work with questioning our job security	Fear
Randy is a great guy and excellent manager! I honestly think that he should be the example for the rest of the company. Thank you for allowing me to work with him. Also, I am proud to work for this company. I have seen this company grow in many directions over the last year and the work environment is still improving daily. Thank you!	Joy
All in all I just love the managers and co-workers. They are like family. They make all the work and stress worth it!	Joy
We keep doing these surveys and nothing gets fixed. It's really disappointing	Sadness
My manager doesn't care about her employees at all. She doesn't follow scheduling rules. She is not approachable and she doesn't listen to any of her employees. She has favorites and it is really unfair to the rest of us. She is immature and a bad example to her employees. Most of us in the department just feel down and out about our future with the company	Sadness
Customers are always complaining how employees are not properly trained. I was shocked to learn that a front desk agent could work a shift during a busy time slot and have no idea what he was doing	Surprise
Customers have questions about the hole in the roof and I can't really explain why it's a problem that has continued for the 6+ years that I've been here	Surprise

Table I.
Examples of employees' job satisfaction survey comments and the corresponding emotion

Figure 4.
Sentiment intensity by emotion category word count from employee comments written in Spanish



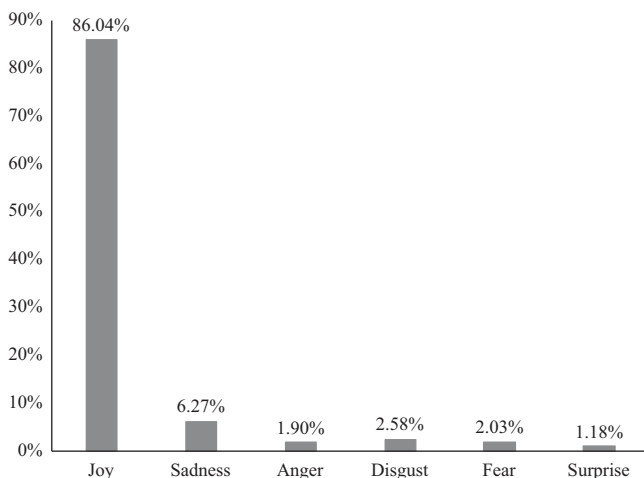


Figure 5.
Sentiment intensity by
emotion category
word count from
employee comments
written in English

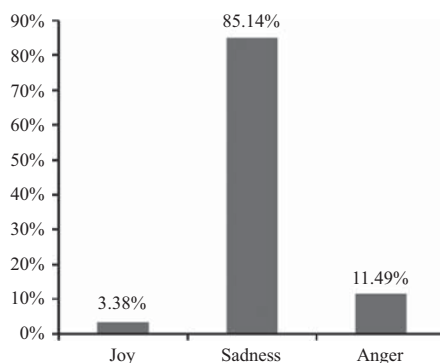


Figure 6.
Emotion intensity for
front-of-house
employee comments
written in Spanish

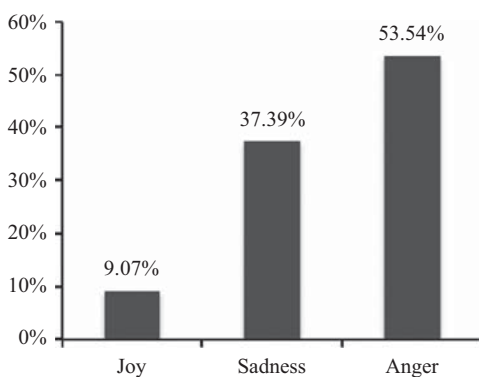


Figure 7.
Emotion intensity for
back-of-house
employee comments
in Spanish

Front-of-house comments on sadness include the topics of careless supervisors, requests for improved employee benefits and wasteful work procedures, while back-of-house employees focus on their desire to be treated better by their supervisors and that their suggestions to improve work procedures are ignored. Front-of-house comments on anger include the lack of

training and bosses that talk negatively about other employees and supervisors, while back-of-house employees comment on their anger toward the low rate of pay and resort room improvements that have been requested but have not been made. Front-of-house comments on joy focus on their happiness with their fellow coworkers while back-of-house employees focus on the giving nature of colleagues and their hope for a health clinic provided by the company.

Analysis of employees with male supervisors vs female supervisors from comments written in Spanish

The final comparison group was from employee comments written in Spanish by groups of employees who have male supervisors (Figure 8) vs employees with female supervisors (Figure 9).

The employees with male supervisors (Spanish comments) results have two emotions: anger (52 percent) and sadness (48 percent). The employees with female supervisors (Spanish comments) top emotions are sadness (73 percent), joy (15 percent) and anger (12 percent). Employees with male supervisors express a higher percentage of anger with 52 percent of their comments in comparison to 12 percent of the employee comments with female supervisors. Sadness is expressed more frequently in 73 percent of the comments from employees with female supervisors than the 48 percent of comments from employees with male supervisors. Joy is only expressed in 12 percent of the comments from employees with female supervisors and by none of the employees with male supervisors.

Figure 8.
Emotion intensity for employees with male supervisors from comments in Spanish

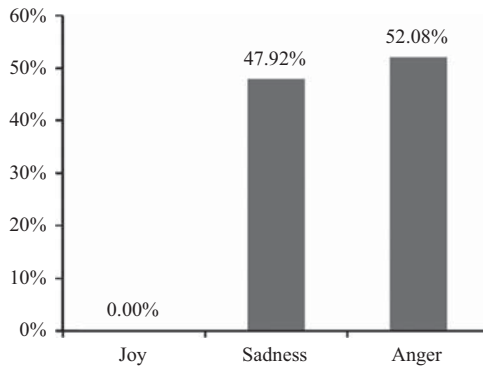
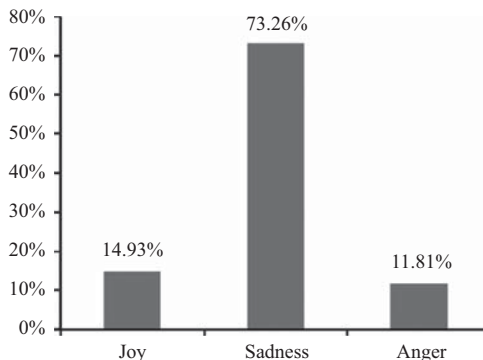


Figure 9.
Emotion intensity for employees with female supervisors from comments in Spanish



Comments on anger from employees with male supervisors include the topics of “us vs them,” lost hope, having to work too fast and department improvements that need to be made. Employees with female supervisors comments focus on their anger toward some coworkers and on their sadness related to their limited health benefits and careless colleagues, while employees with male supervisors share sadness comments that focus on the low salaries and items at the resort that need to be fixed. Employees with female supervisors include comments on joy that include applause for the giving people that comprise their department.

Discussion

The main goal of this study was the use of sentiment analysis, a fresh approach to analyzing large text databases, to understand employee job satisfaction from the unstructured comments of a companywide employee job satisfaction survey. The intention was to see if emotions from employee comments could be identified between the different groups and, further, if the emotions identified could give insight on what might be impacting the company’s customer service and occupancy levels. The study’s results add a new contribution related to employee job satisfaction from multiple hospitality employees’ viewpoints that complement the findings of Madera *et al.* (2013) who investigated hospitality managers’ job satisfaction in diverse hospitality workplaces. As Madera *et al.* (2013) identified, manager-to-subordinate miscommunication transpired based on multicultural language barriers and cultural cues. Findings from this current study also confirm Madera *et al.* (2013) results that the repercussions of a negatively perceived diversity climate include distrust, conflict and lower organizational commitment levels among employees. By using the process of sentiment analysis to analyze the emotional content of a large data set of employee comments, this study’s results generate new insights to add to job satisfaction in the existing hospitality literature in each of the research question’s findings:

RQ1. What emotions are the most prevalent in all employee comments?

The first research question explored the sentiments that were most prevalent in all employee comments. The prevailing sentiment expressed in the entire employee word bank is “joy” (82 percent) with employees primarily sharing their appreciation of positive work experiences such as empowering supervisors or giving positive suggestions to improve the resort’s customer experience. The second most prevalent emotion, “sadness” (10 percent), focused on somber employee comments regarding salaries or resort facilities needing repair. The third strongest emotion was “anger” (3 percent), with comments including “feeling like a slave” and having “strict supervisors.” Fewer comments fell in the categories of “disgust” (2 percent), “fear,” (2 percent) and “surprise” (1 percent). Overall, the employee comments fell into the same four job satisfaction categories that were identified from three decades of hospitality employee job satisfaction studies: financial rewards, job training and career development, supervisor support and working conditions (Thomas *et al.*, 2014). At this first look at the results, it appears that the majority of the employees have high levels of job satisfaction:

RQ2. What are the emotion differences between responses written in English vs those written in Spanish?

This study’s second research question identified the sentiment differences in job satisfaction between responses written in English vs those written in Spanish. The top three emotions identified in the Spanish comments were “sadness” (66 percent), “anger” (21 percent) and “joy” (13 percent). This is a sharp contrast to the emotions identified in the combined English and Spanish (translated) employee word bank of “sadness” (10 percent), “anger” (3 percent) and “joy” (82 percent). These findings identify that the Spanish-speaking subsection of the workforce experiences higher levels of negative emotions and lower levels of positive emotions than the overall workforce.

The comments from the translated Spanish words categorized as sadness include requests for higher pay, better employee benefits and requests to fix potential hazards to guests. Comments categorized as anger are suggestions for supervisors to respect their work contributions and their frustration that past survey comments have been ignored, as they have not seen improvements from previous years' suggestions. The 13 percent of the Spanish comments expressing joy focused on positive teamwork with department employees and suggestions for improving their resort. These findings are similar to those of Latino food service employees whose food safety behavior was motivated by their concern to reach high satisfaction levels for both management and customers (Cho *et al.*, 2013):

RQ3a. What are the emotion differences between responses written in Spanish for front-of-house vs back-of-house employees?

The third research question investigated the sentiment differences between responses written in Spanish for front-of-house employees vs back-of-house employees. The front-of-house employees express a higher percentage of sadness in 85 percent of the comments in comparison to back-of-house employees at 38 percent. Front-of-house comments on sadness include the topics of careless supervisors, requests for improved employee benefits and wasteful work procedures, while back-of-house employees focus on their desire to be treated better by their supervisors and that their suggestions to improve the workplace are ignored.

Anger is expressed more frequently by the back-of-house employees at a rate of 54 percent of the comments in comparison to 12 percent for the front-of-house employees. Front-of-house comments on anger include having bosses that talk negatively about fellow employees and the lack of training, while back-of-house employees focus on the low pay and improvements to resort rooms that have not been made. These comments run parallel to similar findings by Madera *et al.* (2013) that identified that role ambiguity created workplace stress for managers of Latino employees. Joy ranks low for both Spanish-speaking groups with back-of-house employees at 9 percent vs 3 percent of front-of-house employees. Front-of-house comments on joy focus on their happiness with their fellow coworkers while back-of-house employees focus on the giving nature of colleagues and their hopes for a health clinic provided by the company.

As described in the data collection phase, the resort's contacts suggested that the researchers ignore the Spanish comments, as the company had not analyzed the Spanish comments in previous years because of their perception that these employees rarely interacted with the customers and did not have an impact on service levels. Being ignored is pointed out in the Spanish comments categorized as anger as employees expressed their frustration that past survey comments had been ignored and they had not seen improvements from their previous years suggestions. This finding further underscores Leiva's (2012) findings that Spanish-speaking employees are seen as "less than" their English-speaking counterparts:

RQ3b. What are the emotion differences between responses written in Spanish for those employees having a male supervisor vs a female supervisor?

The final research question examines the sentiment differences between Spanish-speaking employees who have a male supervisor vs those who have a female supervisor. The group of employees with the largest number of negative emotions was found from employees who wrote comments in Spanish about their male supervisor. Those who had female supervisors had lower levels of anger but higher levels of sadness, with some comments registering the positive emotion of joy. There were not comments categorized as joy from the Spanish-speaking employees with male supervisors. These supervisor gender differences are a new finding in the literature regarding differences in how male and female supervisors are perceived by Spanish-speaking hospitality workers in the USA.

Implications and conclusions

The findings presented here are of value to hospitality organizations due to the insight provided into the experience of Latino employees, who are a valuable but understudied resource in today's workforce (Raghuram *et al.*, 2012). By identifying opportunities for increasing Latino worker job satisfaction, hospitality organizations can decrease the undesirable outcomes, such as stress and high turnover rates, and in turn create a productive work environment for all employees. This research advances the literature examining employee diversity, specifically referring to Latino hospitality employees who communicate in Spanish.

Academic implications

First, this study further examines employees working in a multicultural work environment. This is necessary because hospitality managers are responsible for leading their subordinates. When there are multicultural factors involved in the environment, particularly language barriers and cultural interactions, these factors can hinder a manager's ability to successfully manage their work team if they are not given the communication skills to do so (Madera *et al.*, 2013). Academic implications include addressing leadership, diversity and cultural skills in the hospitality curriculum, due to the growth in multicultural workforce within the hospitality industry. Requiring a foreign language and/or study-abroad could be additional course suggestions for hospitality and tourism undergraduate programs to better prepare their graduates who are embarking on their new hospitality management career.

Scholars and industry have argued that diversity programs are vital to improving financial performance for US hospitality organizations (King *et al.*, 2012; Madera, 2013; Madera *et al.*, 2011, 2013; Singal, 2014; Sourouklis and Tsagdis, 2013). Latinos working in the hospitality industry are an important factor of direct and indirect customer satisfaction levels that into how these factors impact revenues (Shinnar, 2007). Therefore, additional academic research should include delving into opportunities to increase employee job satisfaction, including best practices for empowering an organization's diverse employees in a work environment that is inclusive for all ethnicities.

Industry implications

Research that reviewed three decades of hospitality employee job satisfaction studies, four factors that impacted job satisfaction were financial rewards, job training and career development, supervisor support and working conditions (Thomas *et al.*, 2014). These four job satisfaction areas were also identified as key factors for job satisfaction in the current study of resort employees. A diverse workforce is a necessary component for human capital for US and global hospitality companies and, thus, a long-term strategy is necessary (Madera, 2013; Madera *et al.*, 2011). Additionally, investment in diversity management translates into superior financial performance (Singal, 2014). Therefore, strategies should include ensuring that policies and practices are in place to safeguard ethnic employees' rights and career opportunities. A key benefit of diversity training is the reduction of discrimination toward ethnically diverse individuals, which is a primary goal of most diversity programs, but is not included as a measured criterion for job satisfaction rates (King *et al.*, 2012). The negative results associated with discrimination in the workplace range from negative employee job satisfaction to expensive litigation costs (King *et al.*, 2012).

Employees, customers and society-at-large are encouraging diversity management in organizations (Singal, 2014). Recognizing these trends, several firms have proactively embraced diversity, thus deriving reputational benefits, like those featured in lists by Diversity and Latina Style (Diversity, 2018; Madera, 2013; Martinez, 2017). In addition to Marriott's efforts in their US properties, they have a global diversity officer

to spearhead their diversity outreach outside of the USA including diversity training to help employees increase their cultural competence and effectively work with peers and customers from different cultures. Disney created its “hola” program that is used to promote Latino cultural exchange between employees (Madera, 2013; Diversity, 2018).

To help front-line hospitality managers comprehend how job characteristics, participative decision making and stress impact their employees’ job satisfaction, Koys and DeCotiis (2015) recommend a more supportive and engaged employee hospitality work environment by developing a management plan that shares clear directions and goals with the entire employee team. Managers should also receive training to be coaches by giving honest and helpful advice as employees progress in their jobs and advance in their careers, including support to help employees learn from their mistakes. Displaying a caring attitude toward employees’ strengths and weakness, and recognizing employee personal and professional achievements, such as announcements during pre-shift meetings, can make the workplace a supportive and enjoyable environment. Indeed, Costen and Salazar’s (2011) findings confirmed that hospitality employees that are given the opportunity to develop new skills to advance within the company result in higher levels of employee satisfaction with the company and job, which in turn leads to employee loyalty and lowered turnover rates.

Limitations and future research

While this study has a large sample and the analyses are robust, there are some limitations that can serve as opportunities for future research. First, there are disadvantages in the use of secondary data. For example, follow-up questions would be helpful, but it is not possible to contact the original survey participants. A second limitation is the data are limited to three resorts that are owned by a US company, and therefore the findings cannot be generalized to a larger population of US resorts. A third limitation is the results are only for employees who wrote comments in Spanish and not for all Latino employees. This subset of Latino employees who wrote in Spanish may, however, have characteristics or experiences that are different or are more pronounced than other Latino employees. An obvious characteristic is that they are more comfortable writing in Spanish, which may be indicative (but not necessarily so) of their level of competence in English. That in turn could result in higher levels of negative experiences, especially with those whose supervisors do not speak Spanish. They could also be less assimilated into the US culture with a lack of familiarity with prevailing workforce attitudes and values that, again, could cause conflict with supervisors.

While these results cannot be generalized to a larger population of resort employees, this study can be a starting point for further studies on other resort companies to investigate aspects of employee job satisfaction, with a specific lens on diversity efforts. Additionally, quantitative and Natural Language Analysis approaches to the data could be insightful to see the data from other analysis. Future research should explore other hospitality organizations in the USA and other countries, as well as other groups who face discrimination in the workplace, such as the Mainland Chinese and Filipinos working in Singapore, Hong Kong and aboard many global cruise ships. Additionally, a future study on employee satisfaction survey comments from a resort company that has an impactful diversity program would be an important contrast to this study, particularly to identify if differences are found between different ethnicities but also between employees who have male vs female supervisors. Research on diverse employee populations is highly valuable due to the growing diversity of hospitality organizations in the USA (Raghuram *et al.*, 2012).

Conclusion

Clearly a diverse workforce will continue to play a major role in the operations of the hospitality sector. As demonstrated in this research, Latino employees are a vital source of

human capital for the hotel industry, and, in turn, the industry needs to take their needs seriously to ensure both employee and guest satisfaction, with the goal for improved financial results. Since researchers have posited that ethnic discrimination is correlated with job dissatisfaction, then the growing Latino presence in the US population suggests that traditional human resources employee behavior assumptions and expectations need to be adjusted for the growing workforce diversity, particularly in the hospitality industry. Therefore, it is hoped that this paper will raise awareness and stimulate further work in this area.

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Corresponding author

Lisa M. Young can be contacted at: lthoma41@depaul.edu

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