

UNDERSTANDING EMPLOYEE VOICE USING MACHINE LEARNING METHOD: EXAMPLE OF HOTEL BUSINESSES

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Abstract: Online reviews are used in tourism research to understand tourist behaviour. However, online comments made by hotel employee have not yet been adequately researched. The study aims to determine on which topics the employees express their ideas, thoughts, and opinions, that is, on which topics they are voice 11,115 comments written by the employees of a chain hotel were analysed. In this study, the latent Dirichlet allocation (LDA) topic modelling method was preferred for the analysis of online comments made by employees. Because of the study, the themes of salary and benefits, management behaviour, service quality, work-life balance, career development, work time, work environment, social rights, career opportunities, food and beverage facilities, ability development were determined. Among the negative comments, the themes of hotel management behaviour, work time, salary and benefits, work-life balance, and career opportunities were determined.

Key words: online employee review, employee voice, hotel management, machine learning, topic model

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INTRODUCTION

Online travel platforms have the potential for the consumers to share their experiences and managers can develop insights about these experiences. This concept, which was examined in the marketing literature and named E-WOM (electronic word of mouth marketing), was also evaluated in terms of examining the comments made by the employees about the organizations. However, studies on this topic are still in their infancy (Symitsi et al., 2018; Stamolampros et al., 2020; Symitsi et al., 2021). Organizational behavior studies in the tourist industry are becoming increasingly important. Previous study has looked at the connection between employee conduct and performance. Performance has been linked to teamwork (Phuong and Huy, 2022); transformational leadership (Idris et al., 2022); organizational citizenship and organizational commitment (Pham et al., 2021); servant leadership (Fatoki et al., 2021); psychological empowerment (Al-Makhadmah et al., 2020); and work environment (Jawabreh et al., 2020). Employee pro-environmental behavior (Fatoki et al., 2021) and green performance (Pham et al., 2021) have recently acquired prominence as the notion of sustainability has been examined. In addition, the impact of customer relationship management characteristics on performance was investigated (Sanasam et al., 2022). On the other hand, research on organizational voice behavior is rare.

We begin our investigation of employee voice factors in the study by using structured and unstructured data from online employee reviews. Then, we demonstrate the knowledge gains from utilizing the obtained information in hotel business human resource processes. As a result, we anticipate how this information will be used and profited from by industry representatives and hotel businesses in terms of strategic human resource management. This study determines the positive and negative opinions of the employees about the hotel management, especially within the scope of the concept of employee voice. According to Miles and Mangold (2014), using information obtained from online reviews can provide organizations with a strategic advantage. Finally, we assess the economic relevance of this information for Hotel Businesses, as well as the gains it generates when used in an investment plan.

Our study contributes to some currents in the literature. First, we contribute to the literature examining the value of online comments for the operational structure of hotel business human resources processes and management decisions. Managers still have limited knowledge of the benefits of big data (LaValle et al., 2011). Analyzing and using big data for hotel businesses offers insights to increase performance and thus ensure competition (Xu et al., 2016). However, applications related to the use of big data are not yet supported by academic studies (McAfee and Brynjolfsson, 2012). That's why we show how online employee comments can be valuable for key managerial issues like employee voice.

Second, this study presents the benefits of examining online reviews with machine learning and content analysis applications. Specifically, we show how hotel managers can use online texts and gather insights from big data to run their decision support mechanisms. For this purpose, we set a goal that will allow business practices to progress in a sustainable way and provide competitive advantage with the data obtained from online reviews. The topic modelling method can analyse the comments made by the employees on online platforms. A limited number of topic modelling methods have been preferred in studies in the field of accommodation and tourism (Kim et al., 2019; Bi et al., 2019; Mazanec, 2017). In terms of detecting the voice of the employee, no study was found in which this method was used. With this method, it is possible to determine the issues on which employees express their thoughts and opinions and the hidden meanings

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underlying these thoughts and views. The potential utility of the topic modelling method in studying the voice behaviour of employees has not gone unnoticed. Therefore, this study fills the gap in the literature by providing a framework for employee voice based on the topic modelling. In the study, firstly, the opinions of the employees about the hotel business were investigated and the data were obtained from the online employee comments. It was determined on which topics they expressed positive and negative opinions. The analysis is based on the topic modelling method, which examines texts through word frequencies and information contained in a dataset of 11,115 employee comments.

Third, we contribute to studies examining the content of information from platforms where online comments can be written. There are studies in which sales and performance forecasts are made using big data (Kulkarni et al., 2012; Chen et al., 2014). Our study adds to the literature by examining online employee comments and predicting information cues for employee voice behaviour. Studies on employee voice in the field of tourism were conducted using the survey technique (Liu et al., 2021; Liu et al., 2021; Yu et al., 2021; Kaya and Karatepe, 2021; Elsetouhi et al., 2018). Employees may not be able to fully express themselves in the structured forms offered by researchers or organizations. The online comments created by the employees can have meaningful results in terms of the decision mechanisms of the managers, as they are filled voluntarily without any limitations. Commenting by both current and former employees is important in terms of comparing the current and former situation of the organization and determining the issues on which employees express their opinions. Additionally, thanks to online comments, different organizations can be compared (Stamolampros et al., 2020).

Recent studies have shown the importance of evaluating employees' online comments for the organization (Symitsi et al., 2018; Stamolampros et al., 2020). In this study, the comments of a hotel business were evaluated in terms of employee voice by using topic modelling and its importance for the tourism sector was discussed. The study differs methodically from other studies. The study aims to determine on which topics the employees express their ideas, thoughts, and opinions, that is, on which topics they are voice. 11, 115 comments written by the employees of a chain hotel were analysed. In the first part of the study, the concept of employee voice and current studies is included. In the second part, the method of the study, the findings of the study in the third part, and the conclusions and recommendations in the last part are presented.

LITERATURE REVIEW

1. Employee Voice

Employee voice refers to all the ways and means by which employees express their thoughts about their jobs and workplaces and try influencing their work in this way (Morrison, 2014; Wilkinson et al., 2019). According to another definition, working voice is the optional communication of ideas, suggestions, concerns, and negativities on business-related issues to conduct organizational regulatory activities (Morrison, 2011). Voice can emerge as a concept that organizations encounter in many issues such as working conditions, remuneration, policies, procedures, and working methods (Wilkinson et al., 2019). Employee voice is commonly a critical factor for identifying problems before they occur and for the organization to identify alternative ways to solve problems (Chen and Hou, 2016; Lu and Lu, 2020). Employee voice is divided into two as supportive and obstructive. Supportive voice is for the employees to present ideas and develop suggestions for the development of the organization and increase productivity.

The blocking voice is defined as employees' voicing their concerns about problematic business processes, critical success factors, and employee abuse (Liang et al., 2012). Dyne et al. (2003) make another distinction. According to the authors, there are three types of employee voices: prosocial, defensive, and accepting voices. Prosocial voice has been defined as the verbal expression of ideas, information, and opinions with a positive motivation to make collaborative contributions to the organization. The defensive voice is the expression of ideas, information and opinions expressed to protect oneself about the business or organization. If the voice is accepting, it is less expression of opinions and ideas because of feeling unable to make a difference or feeling that there will be no change (Dyne et al., 2003).

In studies on employee voice, it has been determined that employee voice has a positive effect on the performance and productivity of the organization (Frazier and Bowler, 2015; Ng and Feldman, 2012). In empirical studies, it has been stated that factors such as the personality traits of the employee's voice, self-efficacy, self-esteem, gender, and tenure are determinants (LePine and Van Dyne, 2001; Premeaux and Bedeian, 2003; Tangirala and Ramanujam, 2008). Additionally, the functioning of teamwork and the size of the team, organizational support, and leadership characteristics are also factors that affect the emergence or inhibition of employee voice (Dutton et al., 2002; Ashford et al., 2002; Gao et al., 2011).

2. Online Employee Reviews

Online employee reviews are a type of word-of-mouth marketing defined as e-WOM in the marketing literature. Employees can make positive or negative comments about the services and behaviour patterns offered by their companies on human resources platforms. Since the user at their own request creates these comments, they provide more information that is reliable. Recently, interest in such platforms has increased (Ladkin and Buhalis, 2016). Employees who are interested in technology, social media, and digital environments generally comment on such platforms, hence higher quality employees. Understanding employee voice behaviour in human resources platforms is important in terms of developing positive employee relations and encouraging potential employees to be attracted to the company.

Employees express their feelings, thoughts and ideas, suggestions, and concerns on human resources platforms. Recently, employee reviews have been examined to determine employee satisfaction in studies including tourism and hospitality literature (eg Stamolampros et al., 2020). Examining the collective vocal behaviour of employees on these platforms may reveal important results (Morrison, 2011). In this study, the views of the employees on the human resources platform about the focus company were examined and the level of employee voice behaviour was tried to be determined.

MATERIALS AND METHODS

1. Research Design

In this study, the human resource platform website was used to examine the comments made by the employees. This platform is an organization operating in the United States, which has been used to search for jobs and express opinions about companies since 2008. On this platform, employees can express their opinions and evaluations about institutions. In the study, 11,115 English-language reviews of a hotel chain, about which comments were made, were downloaded on this platform. Comments were obtained through a web-scraping program from September to October 2021. The comments obtained include the comments between 2008, the year the platform started operating, and October 2021.

In addition to the comments, variables such as the points given by the employees to the company, their status as current and former employees, the number of employees in the company, and the income of the company were thus obtained. The data were transferred to the excel environment. Then, it was transferred to Rapidminer 9.3 program to make topic modelling. This program, with its text mining analysis and LDA module, separates all comments into separate words and determines the topics of these words. The topic modelling method has started to be used in tourism studies as probabilistic latent meaning analysis (Hofmann, 1999) and latent dirichlet allocation (LDA) analysis (Blei et al., 2013).

LDA is the most powerful and widely used method because it has a distinguishing feature of the distribution of topics and words in topics. The LDA method is a method that classified several related words from the word basket in the comments and creates the topic-word distribution. The analysis of key issues from large volumes of unstructured text data is possible using LDA (Guo et al., 2017). The research process is shown in Figure 1.

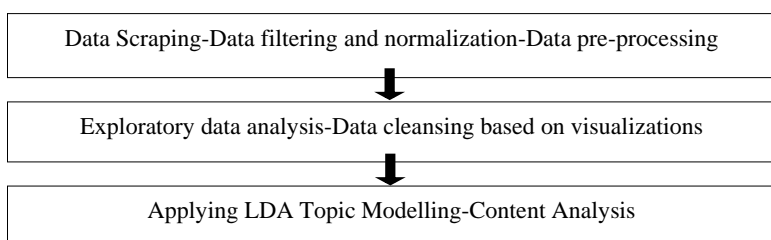


Figure 1. Research Process

2. Topic modelling with LDA (Latent Dirichlet Allocation) Method

After downloading the comments about the hotels, the text-mining phase was started. Rapid Miner program was preferred for text mining analysis. The Rapid Miner program includes several operators that can be applied to different types of data, including text documents. It has two aspects: design and result. The design view creates a visual model with operators by the drag and drop method. Detailed graphics and statistical tables are presented in the result view. It is a suitable program for data analysis (Hofmann and Klinkenberg, 2016). The resulting Excel file was transferred to the Rapid Miner program. A model was prepared for separating individual words in comments, extracting word frequencies, and LDA (Latent Dirichlet Allocation Analysis). The design view of the model created in the data pre-processing and LDA phase is shown in Figure 2.

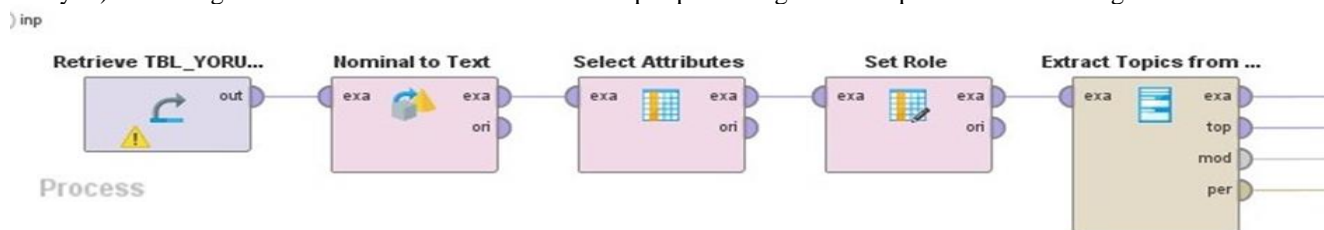


Figure 2. Data pre-processing and LDA analysis design view (Rapid miner program Screenshot)

Figure 2 shows the operators of the model created in the Rapid miner program. These operators perform the operations of nominal to text, select attributes, set roles, extract topics from. Additionally, a distinction is made according to the topics by classifying the related words with the LDA topic modelling operator. With the LDA topic modelling method, it is extracted the dimensions of employee voice. Because of the analysis, 10 topics related to positive comments and the first 10 words in each topic, 5 topics for negative comments, and the first 10 words in each topic, and their relative weights were determined. The naming of the topics was first carried out by a researcher. It was later confirmed by another expert. The naming of topics is based on identifying the logical connection between the most frequently used words for a topic.

RESULTS AND DISCUSSION

In this section, the results of the data analysis are presented. The descriptive features obtained are shown in Table 1. All 11,115 reviews of the hotel chain have been downloaded on the human resource platform website. 49.61% of the commenters are former employees and 50.39% are current employees. It is seen that 18.71% of the employees have

Table 1. Descriptive Characteristics

	f	%
Total Number of Comments	11.115	
Number of Former Employees	5.514	49.61
Current Number Of Employees	5.601	50.39
Year of Study		
Less than 1 year	1.252	11.26
More than 1 year	2.080	18.71
More than 3 years	1.293	11.63
More than 5 years	787	7.08
More than 8 years	380	3.42
More than 10 years	587	5.28
Year not Specified	4.736	42.61
Hotel Features		
Employee Number	10000+	
Revenues	10+ billion \$	
Establishment Year	1927	

worked for more than 1 year, 11.63% for more than 3 years, and 11.26% for less than 1 year. The chain hotel, which constitutes the sample, is a countless business with more than 10,000 employees and revenue of more than 10 billion dollars. The hotel business has been operating in the tourism sector since 1927.

1. Employees' Hotel Management Scoring

In addition to making comments about the hotel, the employees evaluated the hotel by giving points. The highest score is 5 and the lowest is 1 point. The ratings of the employees regarding the chain hotel are presented in Table 2. When Table 2 is examined, it can be said that in general, all employees give high points to the chain hotel (5 points = 37.26 %; 4 points = 32.05 %). It is seen that the rates of those who give low scores are at a low level (2 points = 6.28 %; 1 point = 5.23).



Figure 3. Word Cloud for Employees' Headlines in Comments

Table 2. Hotel Management Ratings of Employees

Point	f	%
5 point	4.141	37.26
4 point	3.562	32.05
3 point	2.133	19.19
2 point	698	6.28
1 point	581	5.23
Total	11.115	

2. Topic Modelling Method

Employee comments on the human resource platform website are presented in the form of headlines, positive and negative comments. The topic modelling method was used in the analysis of the comments. This model is a model that classifies texts and determines topics according to word frequencies. In this study, the topic modelling method, which is used in the marketing and tourism sector, which can make classifications from the whole of the texts and provides information on the determined topics, was used. The analysis was conducted by loading the comments into the analysis program separately. The analysis was conducted in three steps. In the first step, the texts were prepared, in the second step they were loaded into the Rapid Miner program and analysed, and in the last step, the words were associated with the topics together with two experts. A word cloud was created using the Word cloud website in the word analysis made on the titles of the comments made by the employees. The word cloud created in Figure 3 is presented.

When Figure 2 is examined, it has been determined that words such as "company, good, great, work, place, manager, experience" come to the fore in terms of employee voice. The prominence of the words "good" and "great" can show that there is a positive perspective on the hotel business. In Figure 4, the word frequencies for positive comments are presented.

Table 3. Topic Resolution for Positive Comments

Salary and Benefits	Management Behaviour	Service Quality	Work-life Balance	Career Development
good	culture	service	like	experience
pay	training	customer	family	skills
benefits	company	experience	really	lot
Good	values	high	people	learning
great	associates	standards	work	learn
decent	strong	training	make	good
Great	management	excellent	working	tasks
job	corporate	industry	Good	clients
Benefits	well	guest	job	guest
salary	Strong	provide	well	different
Work Time	Work Environment	Social Rights	Food and Beverages Facilities	Ability Development
hours	friendly	insurance	free	opportunities
flexible	community	benefits	food	company
schedule	fair	health	Free	growth
work	Family	medical	lunch	great
Flexible	atmosphere	dental	meals	career
working	training	insurance	provided	Great
home	service	paid	cafeteria	opportunity
school	helpful	benefits	shift	training
scheduling	Opportunities	time	nice	advancement
schedules	Staff	discounts	meal	benefits

When Figure 4 is examined, it is seen that the words "great, work, benefits, good, company, hotel, discount, opportunities and share" are used the most; It was determined that the words "training, life, like, schedule, culture, balance, hours, experience" were used the least. When examined in terms of employee voice, it is seen that the most information is given about the benefits, opportunities, and payments in the hotel business. The least mentioned topics are education, working hours, and experience. In Table 3, topic modelling of the positive comments of the employees is presented.

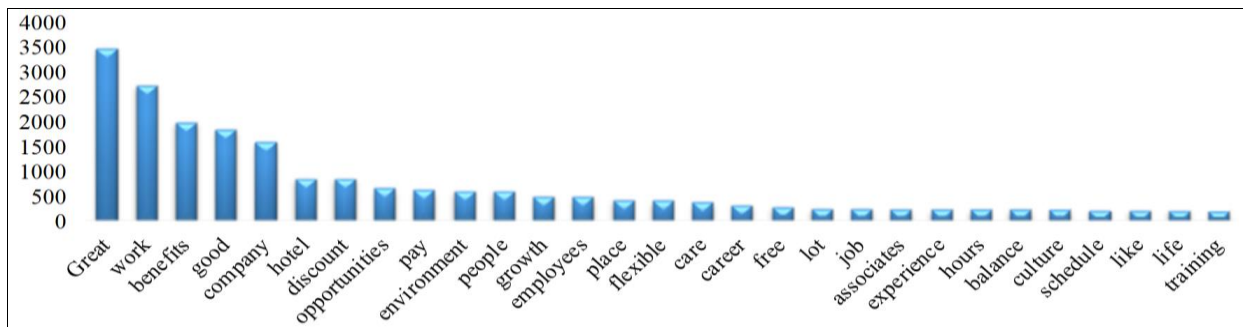


Figure 4. Word Frequencies for Positive Comments

Because of the topic modelling regarding the positive comments in Table 4, 10 themes were determined. The themes are “salary and benefits, management behaviour, service quality, work-life balance, career development, work time, work environment, social rights, career opportunities, food and beverage facilities, ability development”. The first theme is salary and benefits. When the Salary and benefits theme is examined, it is seen that the words that make up this theme consist of words such as “good, share, benefits, great, decent, job, salary”. Below are some of the employee comments:

-“Good salary, good benefits”-“Organized, Good salary for management”-“High paying job with great benefits”-“competitive salary, solid structure, good core values”-“Decent benefits and decent salary with experience”

When the comments are examined, it can be said that the hotel management offers good and sufficient opportunities in terms of salary and benefits. The second theme is the hotel management behaviour theme. Words that make up the theme of management behaviour are “culture, training, company, values, associates, strong, corporate, well”. Below there are some comments made by the employees.

-“Strong company culture and values. Sustainably focused.”-“Putting people first has always been their value.”

-“Great people, good company values”-“Good company core values and benefits”-“Great values and culture. Excellent employee benefits.”

When the comments are examined, it can be stated that the hotel management has a culture that embraces working together, attaches importance to values, and offers educational opportunities. The third theme is the service quality theme. The words that make up the theme of service quality are “service, customer, experience, high, standards, training, excellent, industry, guest and provide”. Some comments from the employees are presented below

-“Great opportunity to learn customer service skills and meet people from worldwide.-“Good customer service experience gained”-“ Strong network of associates, reputation as one of the best in industry, high standards of guest service and cleanliness”-“Excellent quality experience from X Hotel Management and great learnings especially in Managed properties.”-“Great learning experience, and great coworkers”

When the comments are evaluated, it can be said that the hotel management has created a learning and self-development environment to provide high-quality service for its guests. The fourth theme is Work-life balance. The words that make up the theme of work-life balance are “like, family, really, people, work, make, working, good, job, well”. Below are some of the employee comments.

-“Career growth opportunities, numerous locations and cities, discount perks, “work family” feel”-“Hotel discounts for associates and family”-“Great work-life balance.”-“Flexible schedule. Great work/life balance.”

-“Managers (all the ones I’ve had) seem to understand the work/life balance dynamic.”-“Good work-life balance, Nice benefits, Not stressful”

When the comments are examined, it can be said that an excellent environment that provides a work-life balance for the employees is provided. The fifth theme is the career development theme. The words that make up the theme of career development are “experience, skills, lot, learning, learn, good, tasks, clients, different”.

-“Benefits many new skills to learn”-“Great market to hone your skills” –“Company has great benefits and there are opportunities to learn different skills.”-“I learned great communication and customer service skills and how to always make sure the customers happy.”-“Some of the best reasons to work for this company is to be able to get the best out there and share skills you already have also” -“The program is fast-track to a management-level position if you have a passion for the hospitality industry. You will develop leadership and customer service skills as you will manage large departments.”

It can be concluded that learning environments where the skills of the employees are developed are created. The sixth theme is the work time theme. The words that make up the theme of work time are “hours, flexible, schedule, work, home, school”. Some comments made by the employees are presented below.

-“Flexible, benefits, you get good discounts on hotel rooms, salary is competitive. What I like the most is the culture, the ability to grow, the sponsored training.”-“Good pay, good teamwork, and flexible schedules”

-“Teamwork between departments, level of talent, the dedication each employee brings to the table to increase the guest experience, use of local products to stay sustainable, atmosphere positive, ability to be flexible, one on one with guest service”-“Flexible Great Management Team Good Work Environment”-“Health benefits, room specials, flexible schedule, family-style environment. Opportunities to move within Marriott all around the globe because of how large the company is.”

It is stated that the hotel management implements flexible working systems for the employees and the employees are satisfied with this situation. The seventh theme is the work environment theme. The words that make up the theme of the work environment are “friendly, community, fair, family, atmosphere, training, service, helpful, opportunities, staff”. Some comments are presented below.

-“Friendly, fair, nice, workable, beneficial”-“You learn to better interact with people! Friendly work environment. Good job to have in college.”-“Great perks Guest satisfaction Friendly working environment”-“The company provides a great work environment with helpful tools for success.”-“Benefit packages are helpful employees”

It can be said that the hotel management adopts a helpful and friendly management style and creates a family atmosphere for the employees. The eighth theme is the social rights theme. The words that make up the social rights theme are “insurance, benefits, health, medical, dental, paid, benefits, time, and discounts”. Some comments from the employees are presented below.

-“Great pay and the best insurance policies ever!”-“Weekly pay Great benefits (especially outside of medical, dental, and vision)”-“Great place to work. They take care of you. Medical dental the works. Also, have a cafe for the employees”-“The benefits are great (full medical/dental/vision for only \$4 to \$5 weekly), fair salary, plenty of opportunities to grow.”-“Great benefits loved the time and half pay on holidays, birthday pay, good hotel discounts, and medical insurance.”

It can be said that the hotel management offers health and insurance opportunities, discounts, and some opportunities for its employees and that the employees are satisfied with the opportunities offered. The ninth theme is food and beverage facilities. The words that make up the theme of food and beverages facilities are “free, food, lunch, meals, provided, cafeteria, shift, nice and meal”.

-“People who work there, nice environment, room to move up, free lunch/dinner, many benefits.”-“Discount, benefits, free lunch”-“Opportunities for relocation and advancement if you are determined and hard-working Free meals on lunch breaks Discounts on hotels and services”-“Great pay, coworkers, and employee benefits. While working all meals were provided at no cost to the employees. Free Starbucks to those of us in the cafe.”

It can be stated that the hotel management offers free and successful food and beverage opportunities for its employees. The last theme is the ability development theme. The words that make up the ability development theme are “opportunities, company, growth, great, career, training, advancement, benefits”. Some comments from the employees are presented below.

-“Benefits, great property, many growth opportunities.”-“Excellent training and reinforcement programs”

-“Great benefits, flexibility, opportunities for grown, extensive training & supportive corporate culture.”-“Good training and awesome technology up to date on all equipment needed to do your job effective and efficient.”

-“Promote advancement from within and training”

It can be said that the employees have career development and advancement opportunities in the hotel business. In Figure 4, the word frequencies for negative comments are presented.

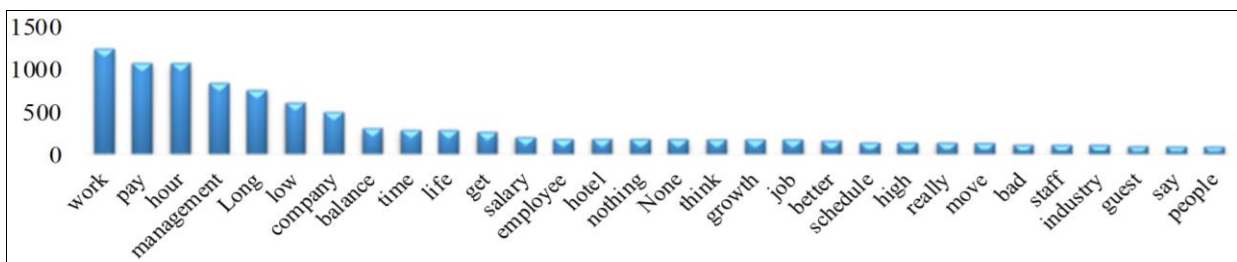


Figure 5. Word Frequencies Regarding Negative Comments

When Figure 5 is examined, the words that are mentioned the most are “work, pay, hour, management, long, low, and company”. It has been determined that the words "people, say, guest, industry, staff, and bad" were used the least. In Table 5, the topic analysis of the negative comments made by the employees about the hotel is given.

Table 4. Topic Analysis for Negative Comments

Hotel Management Behaviour	Work Time	Salary and Benefits	Work-life Balance	Career Opportunities
management	hours	pay	work	much
management	work	low	balance	growth
employees	time	Low	life	room
staff	Long	Pay	bad	opportunities
training	long	salary	Work	career
poor	lot	could	Nothing	job
lack	working	better	industry	advancement
team	think	benefits	due	little
lack	cons	Salary	equal	outside
communication	None	little	say	limited

Because of the topic modelling in Table 4, 5 themes were determined. The themes are “hotel management behaviour, work time, salary and benefits, work-life balance, career opportunities”. The first theme is the hotel management behaviour theme. The words that make up the theme of hotel management behaviour are “management, employees, staff, training, poor, lack, team, communication”. Some comments from the employees are presented below.

-“Poor upper management and no leadership”-“Very poor management, and employee appreciation.”-“Poor communication. Supervisors with little to no experience in the field.”-“Poorly managed and run down”

-“Management lacks leadership skills.” It has been stated that hotel managers have an inadequacy in their leadership skills and lack of communication. The second theme is the work time theme. The words that make up the theme of work-time are “work, time, long, lot, working, think, none”. Some comments are presented below.

-*“Long hours and inconsistent schedules”*-*“Low salary long hours no prestige”*-*“Hours can be long, especially with conferences!”*-*“The hours are long most likely going to have to sacrifice a lot of personal time”*-*“A lot of work and obstacles to get the work done.”* It can be stated that the working hours of the employees are long and they work at an intense working tempo. The third theme is salary and benefits. The words that make up the theme of Salary and Benefits are “pay, low, salary, better, benefits, salary, little”. Some comments from the employees are presented below.

-*“Pay is on the lower side”*-*“Lower pay compared to the industry.”*-*“Low pay, long hours, low pay”*

-*“Ridiculously low wages. People must work like animals to make a decent salary. Meanwhile, directors that walk around delegating their job make all the money.”*-*“The yearly salary percentage increase is low considering the amount of work we do.”*

It has been determined that the employees find salaries low and the opportunities offered are limited. The fourth theme is work-life balance. The words that make up the theme of work-life balance are “work, balance, life, bad, work, nothing, industry, equal, say”. Some comments are presented below.

-*“May work 7-10 days in a row Bad work/life balance”*-*“No management support, and bad scheduling”*-*“No work/life balance, low wages”*-*“The work vs life balance is not equal.”*-*“Lack of work-life balance”*

It has been stated that there is a negative situation in terms of work-life balance. The fifth theme is the career development theme. The words that make up the theme of career development are “much, opportunities, growth, room, career, job, advancement, little, outside, limited”. Some comments from the employees are presented below.

-*“Limited career advancement, a very structured environment that does not allow for creative thinking”*- *“The growth opportunity is limited”*-*“Advancement opportunities can be limited”*- *“If you don't work at HQ, leadership opportunities are limited.”*- *“New hires sometimes have limited guidance, difficult to integrate into culture”*

-*“Career growth opportunities limited in some departments”*

According to these comments, it has been stated that the career opportunities offered by the hotel management are limited and few.

DISCUSSION AND IMPLICATIONS

1. Theoretical implications

This study adds to studies in the tourism and hotel management literature that look at the human resource management of employees. Several important insights emerged as a result of the analysis in terms of determining the factors that cause employee voice and employee voice in the tourism and hospitality industries. The highlights of this study's implications for research in this critical dimension of tourism and hospitality literature are provided below.

The study's original theoretical meaning is that it is the first to evaluate the relative value of employee voice based on the knowledge content of online employee reviews. Although multiple studies have explored various elements (satisfaction, staff turnover), online employee reviews have not been addressed. Most research to date has investigated the association between a specific element and employee voice results. The study ensured that the themes relating to employee voice were highlighted. Employees' voice behaviour on a variety of subjects, including hotel working conditions, salary, policies, processes, and working methods, has been determined. The findings of the study back up the findings of Wilkinson et al. (2019). The study's second theoretical addition is that it is compatible with subject modelling, where employees can easily express their opinions, as opposed to rating studies, which limit information to specific scales. Employees showed good attitudes toward pay and benefits, managerial behaviours, career and advancement prospects, and talent development, according to the study's findings. They also discussed the issues that have arisen in the tourism and lodging industries (low salary, long working hours, work-life balance, career and promotion opportunities). The findings of Liang et al. (2012) and Dyne et al., (2003) research confirm the categorization proposed in their studies.

The study's last theoretical contribution is the analysis of online reviews as a trustworthy data source, with methodological advances over known measurement scales. Because employee voice is multidimensional, a single assessment tool cannot account for all characteristics of industry-specific employee voice. As a result, human resources researchers in the tourism and hospitality industries can study employee feedback stated on human resources web pages, which include highly representative and reliable information.

2. Management implications

The information value of online employee reviews to corroborate the measurement results of earlier investigations was disclosed in this study. It validates other measuring results since internet platforms provide researchers with limitless information. As a result, it is critical to expose online evaluations, employee voice behaviour, and characteristics associated with this notion, to know employees in the tourism and accommodation business, and to assist research that utilizes primary data. Given the study's findings, managers must take action to address employee voices and perspectives, as well as the negative concerns they focus on. The feedback offered by the human resources platform in the realm of management was used to provide managers with precise directions. We give recommendations for tourism and lodging organizations using the issue modelling technique described in the results section. Regarding the unfavourable opinions of the workers, five themes were identified. These are the themes: "Hotel management behaviour, working hours, compensation and perks, work-life balance, and career chances". It has been discovered that hotel managers have unfavourable views about their personnel as a result of poor communication abilities. This might be attributed to a lack of communication training, as well as a lack of required norms and methods to govern such conduct. To address such issues, managers should provide feedback systems via which workers may voice their dissatisfaction with the conditions they face. To ensure open communication, it is also vital to build a conversation and discourse atmosphere.

By definition, the tourism and hospitality industries have lengthy and intensive working hours, as well as a shift system. Employees expressed their dissatisfaction with this situation. Managers should engage in activities that motivate staff after a hard day's work. Overtime compensation, extra premiums, and extended leaves are all important for employee incentives.

Employee opinions revealed that low wages and improved compensation should be rewarded and that efforts should be rewarded. Firms in the tourism and hospitality sectors frequently do not monitor their employees' financial situations and do not take into consideration the employees' financial and personal issues. Because these businesses cannot foresee that contented workers would lead to satisfied consumers, they do not develop solutions in this area. Managers must understand their workers' expectations from their firms and devise an incentive scheme to meet those expectations. These incentives should not just be based on salary, but also on a system that rewards them for their success. Because of the company's characteristics, firms in the tourism and hospitality sector have a strong working tempo. Employees occasionally find it challenging to strike a work-life balance. Furthermore, the lack of career and advancement options available causes employees to feel unsatisfied and to communicate their dissatisfaction. According to the research, there are negative attitudes on this subject. Managers that are concerned about this issue provide on-the-job training, coaching, webinars, and other resources to their staff. Through programs, they should encourage staff growth and open up new job opportunities. Managers should examine their workers' requirements and goals before developing training programs to meet those expectations.

CONCLUSION

The study examined employee comments regarding hotel businesses on digital platforms via the viewpoint of employee voice. The responses gathered are critical for managers to gain insights into their personnel and determine their management styles. Positive and negative employee opinions were evaluated using topic modelling analysis in this study, which examined 11,115 employee comments. Employee ratings, comment titles, good remarks, and negative comments were analyzed in the study. According to the findings of the study, employees are satisfied with the overall state of the hotel industry based on their scores. The scores were decided to be 4 and 5 points. The use of the terms "good" and "great" as a result of the title analysis demonstrates that the employees have positive feelings about the organization. It was determined that employees remarked the most on benefits, opportunities, and salary, and the least on education, working hours, and experience.

Ten themes emerged from the positive comments of the employees. The themes are "salary and benefits, management behaviour, service quality, work-life balance, career development, work time, work environment, social rights, career opportunities, food and beverage facilities, and ability development." Employees have good and sufficient opportunities in terms of salaries and benefits, have a culture that embraces working together, values, and offer educational opportunities, learning and self-development, work-life balance, flexible working, health, and insurance, free food and beverage opportunities, and it can be said that they offer their ideas, opinions, and suggestions within the scope of the employees' voice about adopting a helpful and empowering culture. There were five themes identified in the employees' negative comments. These themes are "hotel management behaviour, work time, salary and benefits, work-life balance, and career opportunities." If managers of tourism and lodging companies want to know what their employees think about their businesses, how satisfied they are, and what problems they are having, they should look at the factors that emerge in online employee reviews.

Several future research directions could be pursued to expand on this work. For example, the manager's role in employee voice should be investigated further. It is possible to determine which managerial behaviours have a positive or negative impact on employee voice behaviour. Furthermore, employee voice behaviours based on positions and demographic characteristics of employees within the company may result in intra-sector differences. Only one hotel chain is considered in our sample. This is due to data collection time and cost constraints. In future studies, larger amounts of data can be collected. Furthermore, because the determined hotel chain is located in different regions and cultures, a study can be conducted in which cultural differences are discussed. Finally, it will be interesting to investigate the issue of employee voice in terms of sectoral differences in the tourism and hospitality industries, as well as other industries.

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