

# THE CONTENT OF EMPLOYEE ADVOCACY BEHAVIOR: A SOCIAL MEDIA ANALYSIS

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## Summary

In the field of Marketing, consumers are continuously looking for information to make well-considered decisions. Moreover, evidence shows that people tend to assign a higher level of trust to a face than to a logo. The faces that have the ability to be a valuable source of information for consumers and job seekers are employees, as they know what the inside of the company looks like. The behavior of employees speaking in favor of their brand, recommending it, or defending it against criticism, is called employee advocacy. Especially these days, where social media is ubiquitous, the importance of employee advocacy behavior for companies has only grown attention. However, insights in the advocacy behavior of employees on social media is limited. Another dimension where no studies were found upon, is the fact that former employees can also be advocates, as they can have the same knowledge about a company as current employees.

This study tries to fill this gap by conducting a content analysis on reviews posted on Glassdoor (i.e. an online platform where employees can rate their employer). First, an exploratory analysis aims to map differences in the advocacy behavior between former and current employees on the one hand. On the other hand, a sentiment analysis attempts to examine sentiment in reviews posted by current and former employees. Next, to paint a picture of the online behavior of employees, a topic modeling analysis aims to map what the underlying themes, discussed by employees, are when they promote their employer.

The results show differences in the behavior of former employees compared to current ones. Not only are former employees less positive when expressing their opinion, even when they give the same rating (i.e. score from one to five) as current employees. Furthermore, current employees gave an average rating of 4,163, while this average was 3,614 for former employees. In the second part of the research, where the most prevalent topics in the reviews of employees were analyzed, the following themes were uncovered: work life balance, workplace, company culture, job role, safety at the company, compensation, management, company status and mentorship. However, it is worth noting that these topic labels are based on the interpretation of the researcher.

The differences in behavior between current and former employees can be a starting point for further research on the trustworthiness people assign to the opinion of former employees. Furthermore, the uncovered topics can be valuable for companies to validate whether they focus on the right underlying mechanisms in their employee advocacy programs.

## Foreword

In front of you lies the thesis “The content of employee advocacy behavior: A social media analysis”.

In times when the metaphor “data is the new gold” has become a famous catch phrase, I developed a strong passion towards creating value with data. These days, it is almost impossible to imagine a world without social media. Also these platforms are all about data. People give away their privacy to get a more customized world in return. Whether that is good evolution or rather scary, I leave it to you. What is certain, is that all the available data can be used to generate knowledge. The subject of this Master’s thesis offered me a great opportunity to combine two of my greatest interests: marketing and exploiting data to generate knowledge. It was an experience where I had to push my boundaries to collect the required social media data and transform it into valuable insights. However, I am happy that I could overcome these challenges and contribute to the domain of Employee Advocacy, a subfield in Marketing, which will only grow importance in the future, in my opinion.

I would like to thank my mentor Laura De Kerpel for the great guidance and creating an environment in which I could explore my passions. The feedback sessions did not only contribute to a better text, but the discussions also helped me with my goal setting and made sure I did not lose this goal out of sight. In this way, writing this thesis became a great learning experience.

From my hands to yours,

Toon Van Camp

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## List of Abbreviations

eWOM	Employee Word-of-Mouth
LDA	Latent Dirichlet Allocation

## 1. Introduction

These days, social media play an important role for businesses and are replacing the traditional marketing tools more and more. It is an easy and relatively cheap way for companies to share content, build engagement and communicate with a large audience. Therefore, social media accounts of brands have become important assets of organizations. However, evidence of various studies suggests that people are more inclined to trust a face than a logo. They prefer online interactions with real people, and especially with close ties, as interactions with humans are more appealing to people (Frederiksen, 2015). Therefore, employees promoting their employer's brand via their own social media accounts has gained the attention of both researchers as business. The behavior of employees who voluntarily speak positively about their employer's brand, recommend it or defend it against criticism is referred to as Employee Advocacy (Thelen, 2020). Due to the emergence of social network platforms such as Facebook and LinkedIn or platforms such as Glassdoor, where people can give reviews about their (former) employer, messages of employees can reach thousands of people within a few minutes. Notwithstanding the fact that employees' posts about their company can backfire and seriously harm the employer's brand reputation (Cervellon & Lirio, 2017; Miles & Mangold, 2014; Terpening, Li, & Littleton, 2016), employees showing advocacy behavior can be a valuable asset for the company. Employees are all active in their own social network and promoting brand-related information in these networks results in various benefits for the company; attracting audiences the company could not have reached without the help of the employee (Miles & Mangold, 2014).

Current academic research on employee advocacy can be divided into two categories. On the one hand, researchers are trying to answer the question what drives employee advocacy behavior. Academics, as well as practitioners are examining how they can turn employees into brand advocates. (Cervellon & Lirio, 2017; Lee & Kim, 2020; Thelen, Ye, & Verghese, 2022; Thelen & Men, 2020; Tsarenko, Leo, & Tse, 2018; van Zoonen, Bartels, van Prooijen, & Schouten, 2018). On the other hand, research is conducted on what the effects are of employee advocacy behavior. In other words, which consequences for the brand, the employee or other stakeholders of the company does employee advocacy behavior involves (Frederiksen, 2015; Terpening et al., 2016).



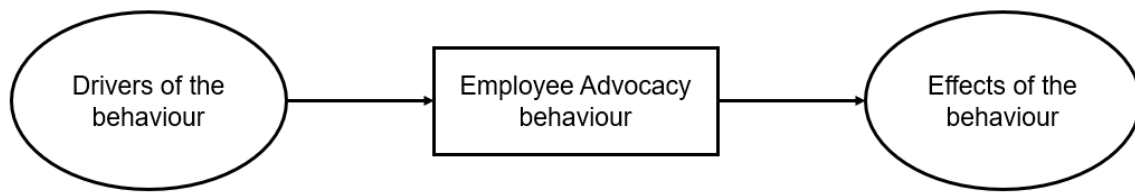


Figure 1: Subdivision research on employee advocacy

Current research on the drivers of employee advocacy behavior and how it can be fostered by companies, is mainly based on surveys (Cervellon & Lirio, 2017; Frederiksen, 2015; Tsarenko et al., 2018) and interviews (Terpening et al., 2016; Thelen, 2020) with employees or employers. Although in the domain of employee advocacy, online posts of employees can reveal valuable information about them. Interviews reflect what people say they are thinking or doing. These statements can deviate from their actual intentions. However, the analysis of social media posts of employees does reflect what they are actually thinking or doing. Especially for reviews that can be posted in an anonymous environment, people can express their opinions and feelings in an unbiased way (Tapi Nzali, Bringay, Lavergne, Mollevi, & Opitz, 2017). Moreover, the fact that former employees of a company also have the opportunity to spread messages online, is disregarded in previous studies. Current research has focused on current employees to create guidelines and suggestions for companies on how to create brand advocates. However, former employees could be perceived as an equally credible source of information, as they can have the same knowledge about a brand as a current employee. Insights on the advocacy behavior of former employees could be a starting point for examining whether it is possible to manage the behavior of former employees.

This study tries to build further upon current research regarding the drivers of employee advocacy and the behavior of employees on social media platforms. Where in previous research conclusions were mainly formed based on interviews with employees and employers, this study tries to examine employees' actual behavior on social media, by analyzing their posts on these platforms. The platform that will be used to analyze employee's post is Glassdoor. On Glassdoor, employees can write reviews about their (former) company and indicate whether they would recommend working at the company to others (Glassdoor, n.d.). Employees making these recommendations is a common type of employee advocacy behavior and are a valuable source of information for job seekers. The information provided by (former) employees on Glassdoor often is not directly visible from the outside of the company. For example, the company could state that the work-life balance is great, but only employees who have experienced working at the company could really know whether this statement is true. For this reason, Glassdoor

could be a credible source of information for extern people. The goal of this study is to identify the underlying themes that employees quote when recommending working at the company to others. In other words, when employees indicate they recommend working at the company to others, what are the most common reasons provided by the employee in their message.

The findings of this analysis could involve various valuable insights for both academics as well as practitioners. First of all, academics could use these insights to get a better view on the actual content of employee advocacy behavior. More specific, when employees are promoting their company, what are the themes that are important to them. In this way, this study contributes to a better understanding on how employee advocacy behavior could be facilitated. Second, practitioners could use these insights to check what the most prevalent topics are in employees' advocacy posts and validate whether companies focus on the right underlying mechanisms in their employee advocacy programs. Furthermore, in addition to the first goal of this study, a second goal is to research the distinction between current and former employees. As already touched upon, former employees also have the opportunity to share information about their former employer, as they have equal experiences of working in the company as current employees. This study will analyze whether former employees still act as advocates for their former employer. In this case, these insights could be a starting point for further research analyzing how people perceive the trustworthiness of messages from former employees.

The remainder of this paper is structured as follows. First of all, section 2 provides a literature review. On the one hand, a review will be conducted on where current research stands on the topic of employee advocacy. On the other hand, as this study will rely on several social media analysis techniques, a short introduction into the field of social media analysis and an explanation of several key techniques will be described in the second part of the literature review. Next, section 3 describes the methodology of this research. The results of this study will be described in section 4. Consequently, a critical discussion of the results will be provided in section 5. At last, this paper will be concluded in section 6.

## 2. Literature Review

This literature review consists of two main topics. First, it aims to give a comprehensive understanding of the topic *Employee Advocacy*. The second topic that will be covered in this literature review is *Social Media Analysis*. As already touched upon in the introduction, this study aims to analyze social media data from Glassdoor. Especially in the Marketing domain, information that is shared online by consumers could contain valuable insights and offers various benefits compared to traditional data gathering methods such as surveys (Luo, Zhou, &Shon, 2016). Techniques to gather and analyze these online data is growing in popularity. Therefore, it is important that the essential concepts and techniques in this domain are clarified.

### 2.1 Employee Advocacy

Employee advocacy is a relatively new topic in the academic world. The rise of social media is one of the main reasons why it gained popularity in the recent years, as the present communication channels enable employees to reach thousands of people with a single post (Cervellon & Lirio, 2017; Miles & Mangold, 2014; Thelen, 2020). However, the search for information by consumers about products and services from sources outside the company, already gained the attention of academics since the end of the previous century (Murray, 1991). In the first part of the literature review on employee advocacy, it will be described how this phenomenon came into being. Subsequently, the definition of employee advocacy will be discussed in the second part. This subsection is followed by a discussion of the different types of employee advocacy. Furthermore, current research on employee advocacy can be divided into research on the drivers of employee advocacy and research on the effects. For the drivers, researchers are seeking for answers on how organizations can turn their employees into brand advocates. This will be discussed in detail in the fourth part of this literature review on employee advocacy. Regarding the value of employee advocacy, researchers are looking at what the benefits are and for whom. This will be covered in the fifth part. Finally, the literature review on employee advocacy concludes with a discussion of the important role that the emergence of social media is playing in the domain of employee advocacy.

#### 2.1.1 Context of Employee Advocacy

In the past decades, there has been a shift from mass consumption, where one-fits-all products and services were the standard, to products and services that are designed around the needs of individuals. Organizations are constantly looking for opportunities to respond to the needs of individual customers, leaving the consumer with a variety of

products and services to select from. On the one hand, this revolution results in products and services that are completely tailored to the individual needs of customers, fulfilling their ever-changing expectations and improving their quality of life (Accenture, 2015). On the other hand, the number of available choices can overload the consumer (Schwartz & Ward, 2004) . To make considered choices from this abundance of options, consumers are willing to minimize their pre-choice uncertainty by gathering information about the options (Murray, 1991).

Moreover, in a world where people are more connected than ever before, it has become more accessible for consumers to seek for information about a variety of products, services and even jobs (Miles & Mangold, 2014). According to Murray (1991), the sources where consumers can gather information from to support their choices can be subdivided into two overarching categories: internal and external sources. Internal information is available in the memory of the consumer, such as past experiences. External information is new and gathered from the environment, such as a family member who already bought the product. An important subdivision of external sources made in the marketing literature is whether information derives from a personal or impersonal source (Murray, 1991). Personal sources can be seen as a real face (e.g. an employee of an organization), while impersonal sources can be seen as the abstract logo of the company (e.g. information on a company's website or a social media post by the account of an organization) (Frederiksen, 2015). Evidence suggests that people assign a high level of trust to these personal sources (Murray, 1991). Frederiksen (2015) states that "People are naturally more inclined to trust a face than a logo. So being able to see an individual's name and picture on a social media message makes the interaction more human and appealing.". Employees can play a significant role in impersonating an organization. Therefore, employee advocacy became a hot topic in the business world as in the marketing, public relations and recruitment literature in recent years (Thelen, 2020).

### 2.1.2 Definition of Employee Advocacy

Employee advocacy is a type of personal source where, as the name implies, people gain company-related information from employees. For example, employees sharing information about the quality of products manufactured by their company. A second example is employees sharing information to job seekers about their experiences on the work floor regarding the company culture or values (Cable & Turban, 2001). Despite the growing relevance, a universal definition of employee advocacy was missing. Researchers were using similar terms such as employee branding and employee word-of-mouth in different ways. While some researchers only see employee advocacy as a

message with a positive valence (Thelen, 2020), others treat it as a phenomenon that works in both directions: positive as well as negative messages about the organization (Miles & Mangold, 2014). In 2020, Thelen (2020) discovered these inconsistencies and tried to clarify the understanding of the concept by establishing a clear definition. The study compared employee advocacy to the similar concepts and identified the discrepancies. By doing so, ambiguity and inconsistencies about the concepts are eliminated.

As stated by Thelen (2020), employee advocacy can be defined as “Verbal (written and spoken) or nonverbal voluntary manifestation of support, recommendation, or defense of an organization or its products by an employee to either internal or external publics.” (Thelen, 2020, p. 8). A first key characteristic of employee advocacy is the positive valence of the message. *To advocate* means to speak in favor of or to defend (Merriam-Webster, n.d.). Employees could have experienced negative situations on the work floor, or they could have inside information that could potentially harm their employer. However, sharing this type of information does not belong to employee advocacy, according to Thelen (2020). A second characteristic is that employee advocacy is a voluntary behavior by the employee. It is not imposed nor rewarded by the employer (Thelen, 2020). Currently, there is a growing trend for organizations to promote employee advocacy behavior and encourage their employees to become brand ambassadors. Several companies even introduced employee advocacy programs to train their employees on how to share content about their employer’s brand in a creative way (Cervellon & Lirio, 2017). In addition, due to the emergence of social media, companies can control their employees’ advocacy behavior, leading to the introduction of reward systems by the companies. However, notwithstanding all the previous incentives that employers apply to encourage employee advocacy, it is still a behavior that is voluntary in nature. Employees support it and are convinced that the message they spread is true (Thelen, 2020). Other scholars define the characteristic of being voluntary in nature as extra-role behavior, meaning that the advocacy behavior is not explicitly part of the responsibilities of the job (Tsarenko et al., 2018). Typical examples of employee advocacy behavior are recommending the product or company to others, talking positively about the company or product, defending the brand when it is criticized by others and sharing brand content (on social media).

As already touched upon, there exist several related concepts such as word-of-mouth and employee branding. Before the clarification of Thelen (2020), the difference between these concepts was not always clear. First, employee branding is the behavior by which employees function as the extension of the brand. Employees make sure that their

actions are in line with the desired brand image (Xiong, King, & Piehler, 2013). These actions of employees can be seen as extra branding efforts by the organization, whereby the employees are the personification of the brand. Therefore, employee branding is always positive (Miles & Mangold, 2014). Employee branding is especially important for companies providing a service (performed by people), as the employees are acting in the foreground and often are the most visible aspect to the outside world (Morhart, Herzog, & Tomczak, 2009). The main difference with employee advocacy is that the behavior can also be directed towards the employer such as employees providing customer feedback from their network to their employer or helping to define the customer needs based on their own findings (Thelen, 2020). A second similar concept is employee word-of-mouth. The key difference with employee advocacy is that word-of-mouth can also take a negative form such as expressing dissatisfaction about past experiences on the work floor (Miles & Mangold, 2014; Thelen, 2020). Thirdly, brand champions, introduced by Morhart et al. (2009), was found as a comparable concept. Brand champions are employees who carry out brand-building behavior. On the one hand, brand-building behavior refers to the extra effort employees put in their work internally. These employees are motivated to surpass the expectations of the employer about their tasks on the work floor. On the other hand, it refers to employees who promote their company to the external world (Morhart et al., 2009). The main difference between brand champions and employee advocates lies in the fact that brand champion behavior is carried out both within as well as outside the walls of the company, while employee advocacy behavior is only about the external behavior of speaking in favor of the employer (Thelen, 2020).

For the remainder of this study, employee advocacy will be treated according to the definition of Thelen (2020). So in summary, employee advocacy is the behavior of employees supporting, recommending or defending the company and is voluntary in nature. It is important to note that the behavior always has a positive valence.

### 2.1.3 Types of Employee Advocacy behavior

Employee advocacy behavior can be categorized in several types of actions. Thelen (2020) classifies employee advocacy behavior based on interviews with public relations and communication professionals. Although it is stated that categorizing all different types of employee advocacy behavior is practically impossible, four frequently recurring types of behavior are listed. The first one is recommending and endorsing. Employees recommend their working at the company or the brand's products to others and say positive things about it. The second is defending. Employees respond in favor of their

employer when others criticize their company. The last one is sharing, where employees share brand posts on with their network (Thelen, 2020). Cervellon and Lirio (2017) acknowledge the same types of behavior, but classify them differently in four dimensions. The first dimension is employee word-of-mouth (eWOM), which contains positively speaking about the company. The second dimension, employee endorsement, is following the employer's brand page on social media, recommending the company to others, and defending the employer when criticized. The third dimension is employee sharing and contains liking and sharing posts of the brand. Finally, employee culture is about making sure the behavior of the employee in public or on social media is in line with the values and beliefs of the company. This last dimension is not mentioned by (Thelen, 2020).

Lee & Kim (2020) subdivide employee advocacy in the context of social media. They recognized two main types of behavior: active and passive behavior. Where active behavior is about "producing" content by themselves, passive behavior is about "consuming" content such as sharing or liking the content created by others (Lee & Kim, 2020). A remark on this subdivision is that these categories are not mutually exclusive. Various social media platforms offer users the possibility to add their own message to the content created by others they share. In this case, employees can create own personal content on top of the content of the brand.

#### 2.1.4 Drivers of Employee Advocacy

Companies are thoroughly seeking ways to encourage the advocacy behavior. Also scholars are gripped by the underlying mechanisms that drive employee advocacy behavior (Cervellon & Lirio, 2017). In this section, employee advocacy behavior will be treated as the outcome of various independent variables. In other words, there will be elaborated on the factors that facilitate the advocacy intentions of an employee.

A first important factor is effective leadership and management. The study of Morhart et al. (2009) examined how to turn employees into brand champions. More specific, the study attempts to answer the question which leadership styles affect the brand-building behavior of employees. As already introduced in the previous section, brand-building behavior is described as putting in extra effort on the job (internal) and speaking positively about the company in public (external). Employees with this behavior are called brand champions. According to the study of Morhart et al. (2009), evidence suggests that effective leadership stimulates brand-building behavior. Motivating communication of managers in conversation with their employees is likely to increase extra-role behavior such as advocacy. Furthermore, when supervisors create a supporting environment for

the employees, it may create an incentive for employees to do something back, leading to advocacy behavior (Thelen et al., 2022).

Secondly, satisfaction at the job is a key driver of employee advocacy behavior. It is about being comfortable and engaged about their tasks. They feel that their job is enriching. When employees perceive their job as meaningful, they feel appreciated. This job satisfaction increases the likelihood of employees promoting the company. Furthermore, this driver is related with leadership style, as motivating communication by the management can influence the employee's perception of their job satisfaction in a positive way (Mishra, Boynton, & Mishra, 2014; Thelen et al., 2022).

A third driver to encourage advocacy behavior is creating an incentive to do so. While rewarding the employee contradicts with the definition of behavior being voluntary in nature, employers can create incentives by making their employees realize the value of advocacy behavior. Employees often do not understand the important role they can play in promoting the brand. Companies can remind their employees that liking the brand's posts or sharing positive things about the brand to stakeholders has beneficial consequences for the company (Cervellon & Lirio, 2017). Additionally, employee advocacy behavior results in positive consequences for the employees themselves such as expanding their social network, keeping up with industry trends and new job opportunities. These benefits could be an important driver for employees to advocate their brand (Frederiksen, 2015). Training and education by the company addressing these benefits and opportunities establishes a great incentive for employees participate in brand advocating behavior (Dreher, 2014), while still leaving it to the employee whether they want to voluntarily show this behavior. Furthermore, although it contradicts with the definition, there are employers that implement reward systems to reach the same outcomes as employee advocacy behavior. Existing companies are already working with monetary bonuses (e.g. vouchers), learning opportunities (e.g. online courses) or recognition of the employee (e.g. acknowledging the behavior and congratulating the employee) to reward the behavior. Learning opportunities and recognition seem to make a bigger impact on employees than monetary rewards (Thelen, 2020). Even more so, evidence is found that monetary rewards can undermine the voluntary behavior of performing a desired task. More specific, when people are used to being rewarded with money for certain behavior, they are less likely to perform the behavior when given the free choice (Murayama, Matsumoto, Izuma, & Matsumoto, 2010). Thus, although the implementation of monetary rewards can temporarily increase employee advocacy behavior, it conflicts with the fact that employee advocacy should be voluntary in nature,



because one can just share a company message to earn the rewards (Cervellon & Lirio, 2017).

Therefore, a fourth important factor is the employee's perception of the brand. When employees can identify themselves with their organization, they often are highly involved and show a high level of commitment. Evidence suggests that a high level of commitment is positively correlated with extra-role behaviors (Tsarenko et al., 2018). On the one hand, it is possible that employees are not convinced about the brand's product or they do not completely support the message they share. When the advocacy behavior is involuntary or not in line with the employee's own beliefs, the message can appear as unbelievable to the network of the employee (Cervellon & Lirio, 2017). On the other hand, when employees are proud of their brand's product or service, they are more likely to share it with their network, as they can identify themselves with the brand's identity. However, this evidence was only found on Facebook and not on LinkedIn (van Zoonen et al., 2018). Also in this case, training and education by the company clarifying the company's values, vision and mission can help employees to embrace the corporate culture (Dreher, 2014)

It can be concluded that leadership style, satisfaction at the job, creating incentives, and employee's perception of the brand are important mechanisms that drive employee advocacy behavior found in the literature. Furthermore, these drivers can be related to each other, such as leadership style and satisfaction, as leaders can create a supporting environment.

### 2.1.5 Benefits of Employee Advocacy

In this section, the results for the company when their employees act as advocates will be discussed. The phenomenon of employee advocacy will be treated as the antecedent of various effects for the company. Miles and Mangold (2014) state that the communication of employees about their company to their network can be a valuable resource for the company resulting in various competitive advantages. However, when managed and guided incorrectly, negative messages can cause irreversible damage to the image of the brand. As discussed in section 2.1.2 about the definition of employee advocacy, this term only includes messages with a positive valence. Therefore, effects of behavior intended to damage the organization will be disregarded.

A much-debated effect of employee advocacy behavior in the literature is the credibility that the audience assigns to the message (Frederiksen, 2015; Mishra et al., 2014; Terpening et al., 2016; Van Hoye & Lievens, 2005). In the study of Van Hoye and Lievens (2007) evidence suggests that job seekers have more trust in word-of-mouth, especially when it is provided by acquaintances they have a strong tie with, compared to job

advertisements provided by the company. This is because people assign more credibility to a face than a logo, as an interaction with a real human is more appealing to them (Frederiksen, 2015).

Furthermore, attracting skilled human capital is an important effect of employee advocacy behavior (Cervellon & Lirio, 2017). Particular information about a job can only be gathered from people working within the organization. This information can be categorized as intangible attributes and contains attributes such as workload, whether working hours are respected and how higher management treats their employees. Job seekers might perceive this information as more credible when it is obtained from current or former employees than when recruiters provide this information (Keeling, McGoldrick, & Sadhu, 2013). Therefore, former or current employees can be a valuable source of information for job seekers (Cable & Turban, 2001). Keeling et al. (2013) examined the most principal factors that drive organizational attractiveness for job seekers. Valence of the message, relationship with the source and source credibility are found to be the most important factors. They also state that messages with a negative valence tend to be most influential.

Finally, various other studies have examined the effects of employee advocacy. Observed effects are that companies with employee advocacy programs grow faster or are able to attract new businesses, have a better reputation and have higher revenue streams (Frederiksen, 2015; Terpening et al., 2016). However, these findings are based on statements of companies in surveys. In the survey conducted by Frederiksen (2015), companies were asked to identify benefits that their company receives from implementing an employee advocacy program. Consequently, the resulting benefits are based on what companies indicate, and not on proved correlations.

#### 2.1.6 Role of Social Media

With the growth of the internet and social media, employee advocacy started gaining more attention in the literature. The reach and impact on the company of traditional employee advocacy, where employees promote their company in face-to-face conversations with their acquaintances, is rather small. However, a single post on LinkedIn or Facebook created by an employee sharing brand-related content can reach thousands of people (Miles & Mangold, 2014). Not only academics have noticed the growing importance of employee advocacy as the result of the emergence of social media, also companies are acknowledging the potential value of it. The study of Frederiksen (2015) indicates that 16,6% of the surveyed companies in 2015 had implemented a formal employee advocacy program to guide and train employees about

sharing brand-related content on social media. Another 53,1% of the surveyed companies was considering implementing a formal program. These figures show the growing attention employee advocacy is getting in the era of social media.

According to the study of Frederiksen (2015), there are three important criteria companies use to measure the success of an employee advocacy program: (1) increase in followers on social media, (2) website traffic, and (3) leads attracted via social channels. These criteria can be measured directly by the company. However, criteria such as reach and engagement gained by the posts of employees cannot be measured directly by the company. Employees are one of the most important assets of organizations, which are almost all active in their own social network. Consequently, they are accessible assets for organizations to create a higher reach and awareness for the brand. On the one hand, only 3% of the consumers is reached by a brand post without the support of paid advertising. On the other hand, social media posts have a more than 500% higher reach (on Facebook) when the message is shared by employees, compared to a brand post (Terpening et al., 2016). No studies were found that compared the engagement on the post of an employee with the engagement on the post of a brand.

Employee posts about brand-related content do not only involve positive effects. First, social Media enhances the ability of consumers to block specific content or unfriend persons they follow. Although posts of employees about their brand involves various positive consequences for the organization, misalignment of the content of the post with the interest of the network of the employee can have negative consequences. According to the study of Terpening et al. (2016), 20% of the surveyed consumers blocked or unfollowed a connection at least once because of a brand-related post. This results in a decrease in the reach of the brand-related posts. It is worth mentioning that blocking or unfollowing is only possible on social network sites such as Facebook or LinkedIn, where people can interact with their network. Other social media sites such as Glassdoor are about one-way interaction. On Glassdoor, people can post their opinion anonymously without expecting a response.

The content to share for employees is a key factor for the success of a message. Therefore, the number of companies implementing employee advocacy programs is growing significantly. These programs are intended to train employees how to deal with brand-related content on social media and make them aware of the potential consequences (Frederiksen, 2015; Terpening et al., 2016). Second, social media use of employees can involve risks and backfire for the company. Employees can complain about the company or reveal a mismatch between how the company says it acts and how

the company actually acts. Especially in the era of social media, it is possible that this information goes viral and causes irrevocable damage to the brand's reputation (Dreher, 2014; Miles & Mangold, 2014). Dreher (2014) developed an eight-step approach to strategically manage employee's social media use. The motive for this study is the fact that in the future, reputation and corporate culture will no longer be communicated by marketing departments only, but by the entire workforce. Therefore, it is the challenge for organizations to learn how to use this in their advantage (Dreher, 2014).

## 2.2 Social Media Analysis

In the early days of social media, the social platforms were mainly seen as a tool for companies to reach out to their customers. It was a promotional channel for one-way communication, where a company could send messages to the consumer. However, social media these days are not only seen as a channel to communicate with the consumer, but also as an important source of insights into the consumer. Companies can directly capture what (potential) customers are saying. Moreover, this information is freely provided by the customers themselves (Moe & Schweidel, 2017). This shift is the result of new techniques to analyze Big Data. Also in the academic world, the emergence of these techniques has created various opportunities. An important benefit of collecting online data compared to traditional data collection methods is the ability to gather data on a large scale. These traditional methods such as surveys or interviews are often limited to a small sample, as collecting a large sample can be expensive or time-consuming (Luo et al., 2016).

One of the analyses that has caught the most attention in the field of social media is content analysis. Content analysis can be described as a family of techniques which overall goal is to translate social media content into information (Lai & To, 2015). Content analysis does not only derive insights from textual data sources, but also from video and audio data sources (Stemler, 2015). An important benefit of content analysis is that it can handle data that is not originally created for research purposes. An example is online reviews. These reviews were not posted with the idea that researchers are going to analyze it. Because of this, the researcher-generated bias is minimized (Drisko & Maschi, 2016).

In the remainder of this literature review on Social Media Analysis, a high-level overview of concrete content analysis methods will be illustrated. First, *topic modeling* will be discussed. In the second part, *sentiment analysis* will be explained. These are two important techniques in the domain of social media analysis. However, this is no

exhaustive overview, as the aim is to create an understanding of the methods that are used in this study.

### 2.2.1 Topic Modeling

Unsupervised learning techniques aim to understand data that do not have a natural output or independent variable. They try to seek patterns in the data based on the dependent variables that are available (James, Witten, & Hastie, 2013). Topic modeling can be described as a class within these unsupervised learning techniques. It is a family of algorithms which have the common goal to identify the most prevalent topics in a collection of documents. In today's world which is all about information, it has become a vital job to summarize texts in the form of topics that represent the texts. Topic models can play an important role in different domains, from uncovering hot topics in a set of tweets to extracting the most important themes of books (Churchill & Singh, 2022). The emergence of topic modeling algorithms has paved the way for researchers and companies to conduct a new form of analysis, as it would be cumbersome to read large texts and try to identify important subjects manually.

According to Churchill and Singh (2022), the input of a topic model is a text corpus of multiple documents. These documents can take multiple forms such as an article, a book or a tweet. A corpus is a collection of these documents such as thousands of reviews. It is assumed that in a single corpus, all the documents have the same form. In other words, a corpus with a collection of news articles and online reviews mixed together is not ideal for further analysis. The first part of the output of the algorithm is a set of topics. A topic is presented as a collection of words (Churchill & Singh, 2022). The most common method to display the output is a list of the top terms per topic. Visualization can help to understand the topics. For example, presenting the collection of top terms in a word cloud (Kherwa & Bansal, 2019). Ideally, topics are interpretable by humans and consist of words that intuitively belong together. Moreover, overlap between words belonging to different topics should be small. The second part of the output are the document-topic distributions. These numbers describe how well a document is represented by the different topics (Churchill & Singh, 2022). An example of the general working of a topic modeling algorithm is displayed in figure 2. In this example, the input documents are a collection of reviews. This figure is based on a similar example on books, introduced by Churchill and Singh (2022).

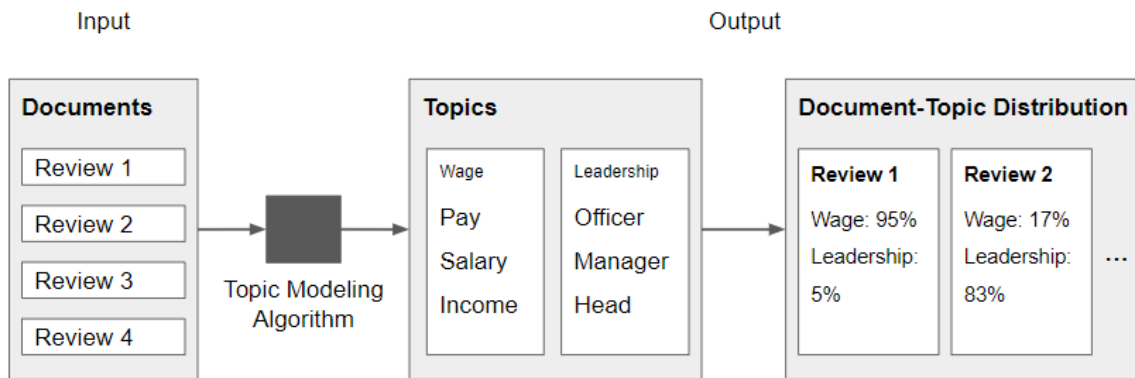


Figure 2: Example of the general working of a topic modeling algorithm based on a similar example of Churchill and Singh (2022)

Topic modeling also involves several challenges. First of all, the labels that are given to the topics (such as *wage* and *leadership* in the figure 2) have to be assigned manually by the researchers. Furthermore, the algorithms do not guarantee that the collection of words are interpretable for humans. In other words, it could be that, according to the algorithm, several words belong together. However, humans cannot give a meaningful label to the proposed topic (Churchill & Singh, 2022). A final challenge is that the researchers need to define the number of topics up front. Until now, no rule that can support the researchers is found, so researchers' domain knowledge is required (Kherwa & Bansal, 2019).

As already visualized in figure 2, topic modeling has also become a considerable tool to understand key topics in reviews. On Glassdoor, topic modeling can play an important role to extract valuable insights about what employees think about their (former) company. These potentially valuable insights are unexplored in the domain of employee advocacy. However, several studies were found that used employee review data from Glassdoor as their input. Luo et al. (2016) researched the relationship between employee satisfaction and company performance. Therefore, they tried to link employees' textual reviews to six predefined dimensions of employee satisfaction (Luo et al., 2016). Based on keywords, they indicated whether a review was containing zero, one or more topics. The nine predefined topics were: integrity, teamwork, innovation, respect, quality, safety, community, communication and reward. These topics together with their associated list of keywords can be used in this study to support the labeling of uncovered topics. Another study used topic modeling to examine the determinants of employee satisfaction and employee turnover (Symitsi, Stamolampros, Daskalakis, & Korfiatis, 2021). Symitsi et al. (2021) uncovered twelve underlying topics in a collection of Glassdoor reviews. They also provided a list with the seven most important words per topic, which could support the

labeling of topics in this study. Moreover, they state that work-life balance, compensation and rewards have less influence on the job satisfaction, while leadership, culture and career opportunities have a more significant impact on job satisfaction. A similar research is conducted on *Jobplanet*, another platform where employees can rate their employers (Jung & Suh, 2019).

### 2.2.2 Sentiment Analysis

Another field in content analysis that has gained popularity since the beginning of the twenty-first century is examining how people feel about a certain message. While topic modeling is about the facts and information in a text, sentiment analysis is about the emotional tone in a text. Moreover, while topic modeling needs to deal with a set of topics, the output of a sentiment analysis can be subdivided in only two categories: positive and negative. However, the output of sentiment analysis can also be viewed as a continuum from negative to neutral to positive. In this way, the strength of the sentiment can be displayed (Mejova, 2009). For sentiment analysis techniques where the output can be viewed as a continuum, sentiment often gets a score between -1 and 1, where the former is extremely negative and the latter is extremely positive. Sentiment values close to zero refer to a neutral message (Lai & To, 2015).

In the field of sentiment analysis, several techniques are available to determine the sentiment orientation of a message. These techniques can be classified in three approaches: the machine learning approach, the rule based approach and the lexical based approach (Devika, Sunitha, & Ganesh, 2016). As it is not the goal of this study to make a comparison between the different techniques, the details of the available techniques and approaches are too technical to explain further.

### 3. Methodology

In this section, the research framework of this study will be discussed. To guarantee a well-structured process of this social media analysis, the approach of Lai and To (2015) will be followed. They developed “a grounded theory approach for the content analysis of social media”. The general goal of this stepwise approach is to transform social media content into information to generate knowledge. In other words, the approach is developed to support researchers converting user-generated raw text and other available contextual data to themes and key topics, to reach the study objective (Lai & To, 2015).

The approach consists of four steps. The first step is to define the goal and scope of the study. This will be discussed in subsection 3.1 *Research Design*. The second phase describes the gathering of data, which will be explained in subsection 3.2 *Data Collection*. The third step, data transformation, is about the preparation of the data as well as how the analysis will be conducted. This step will be discussed in 3.3 *Data Analysis*. The approach concludes with the interpretation of the results. This step, however, will be covered in a new section (4. *Results*).

#### 3.1 Research Design

In the context of social media analysis, according to Lai & To (2015), the first step in the project is to define a clear goal to make sure the scope for the study is bounded. The goal of this study is twofold. The first part of the analysis aims to get a view on the most prevalent topics employees talk about when reviewing their employer. Currently, in the field of employee advocacy, the majority of the research is about employees’ opinions about their employer and why they would promote the company in their network. The data of research in this regard is gathered via surveys or interviews with employees. While these types of research provide a first view on how employees think about advocacy behavior, studies on the actual behavior of employees are limited. Especially in this digital era, where social media platforms facilitate the reach of employee advocacy messages on the one hand. On the other hand, these platforms also facilitate the accessibility of the actual behavior of employees to researchers. The first part of this study tries to address this opportunity. Consequently, the first research question reads as follows:

**(RQ1) What are the most prevalent topics employees talk about when advocating for their employer?**

Furthermore, an important dimension that was often overlooked before in the literature on employee advocacy, is the employment status of the employee. Up till now, research



assumes advocates to be current employees. However, former employees can display similar behavior as current employees. While research is lacking on the effects of advocacy behavior displayed by former employees (e.g. whether messages about a former company are perceived equally trustworthy as messages about a current employer), examining the difference in behavior of former employees compared to current employees could be a valuable starting point for further research. Therefore, this study aims to get a first view on differences in topics discussed by employees in relation to their employment status. Thus, the second research question of this study reads as follows:

**(RQ2) Does a dissimilarity exists in employee advocacy behavior between current and former employees?**

### 3.2 Data Collection

As already touched upon in the introduction, data will be gathered from Glassdoor. On Glassdoor, employees can rate their working experience at their (former) company. A rich collection of data is available on this website: information about the employee, information about the company and the review data themselves. An explanation of the Glassdoor data collected for this study can be consulted in table 1, 2 and 3.

#### Employee Data

Variable	Explanation
Employment status	Whether the reviewer is a current or former employee.
Function	The job title of the reviewer.
Years in service	The number of years the employee has worked for the company.

*Table 1: Description of the Employee Data*

#### Company Data

Variable	Explanation
Industry	The industry the company is operating in.

*Table 2: Description of the Company Data*

#### Review Data

Variable	Explanation
Date	The date of the review.
Rating	The score from 1 (negative) to 5 (positive).
Headline	The title of the review.
Pros	The positive points of working at the company.
Cons	The negative points of working at the company.

Recommend to others	Whether the reviewer would recommend the company to others.
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*Table 3: Description of the Review Data*

There is no guidance found in the literature on the recommended amount of observations to collect when analyzing reviews or something similar. Comparable studies have collected ten thousands of reviews (Jung & Suh, 2019; Luo et al., 2016) . As this study is in the context of a Master’s dissertation and there are limitations regarding computational power, the aim was to collect reviews from 25 different companies with a maximum of two hundred reviews per company. However, not every company did contain two hundred reviews on Glassdoor and several duplicated reviews were detected in the data. After removing these, a total amount of 4821 reviews was remained for further analysis. Moreover, only reviews in English were collected.

Several parameters about the companies on Glassdoor were decided on beforehand. The first parameter is the industry of the company. The distribution of industries was based on the respondents of the study of (Frederiksen, 2015); they surveyed “professionals who use social media for business purposes” to get a general view on the opinions of employees on advocacy behavior. The five industries with the highest amounts of respondents, which were also available on Glassdoor, were selected. These industries are (1) A/E/C (Architecture, Engineering, Construction and Real Estate), (2) Financial Services (Accounting, Banking, Insurance and others), (3) Advertising and Marketing, (4) Technology and (5) Education and Healthcare. From each of the five selected industries, five companies were selected randomly. Another parameter is the size of the company. Companies were selected randomly according to their size. Only the smaller companies with less than two hundred employees were filtered out, as it seemed that the number of reviews on these companies was often limited. The number of companies collected in the sample per company size group is visualized in figure 3. Glassdoor does not provide information about the exact number of employees working for the company. The predefined categories are: *1 to 50, 51 to 200, 201 to 500, 501 to 1000, 1001 to 5000, 5001 to 10000, and 10000+*. Thus, companies in the first two categories were omitted for the data collection.

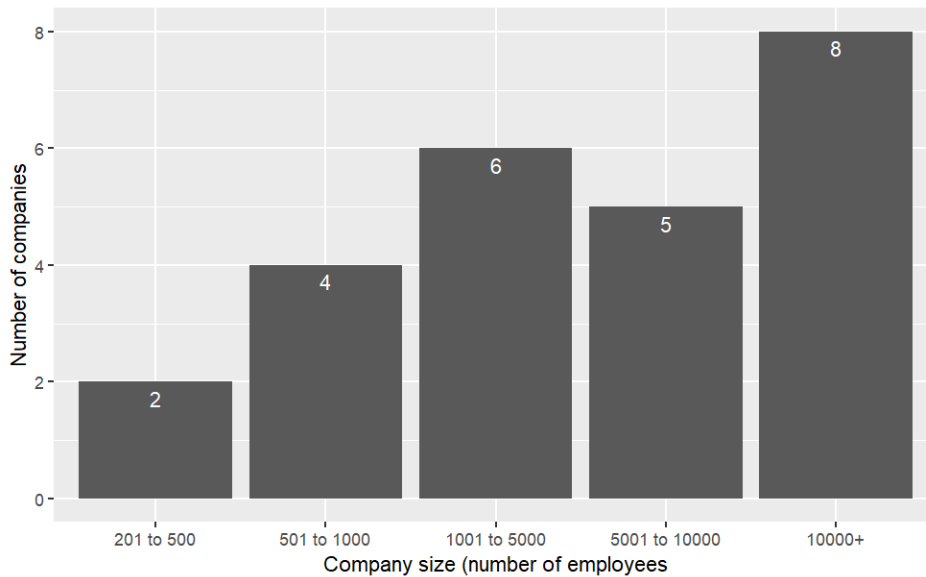


Figure 3: The number of companies in the sample per company size

To conclude, 4821 reviews were collected on Glassdoor from twenty-five different companies, which are equally divided over five industries. The two hundred most recent reviews per company were selected. Furthermore, the dataset contains of 3017 reviews from current employees, while 1804 reviews are from former employees. Moreover, the reviews date from 11 February 2011 until 8 May 2023.

### 3.3 Data Analysis

The first part of the analysis is in the form of an exploratory analysis. The goal is to get a better understanding of what is in the dataset of collected reviews. The two main dimensions in this dataset that can be used to make comparisons within them, are the industries and the employment status. As only five companies per industry are selected, they seem not suitable for drawing conclusions on the differences between industries. However, a first view on the differences between current and former employees can be obtained. The variables that can be used to make comparisons are the rating (i.e. a score from one to five) that employees give to the company and whether they indicate recommending the company to an acquaintance.

After the exploratory analysis, a content analysis will be conducted. For this study, reviews with a rating of one or two are defined as negative reviews, three as neutral and four and five as positive reviews. As this study will be conducted in the context of employee advocacy and this phenomenon only includes positive messages according to its definition (Thelen, 2020), only reviews with a rating of four and five are selected for the topic modeling analysis. Beside the structured data, the text shared by employees contains valuable information about what they think or feel (Moe & Schweidel, 2017). On

Glassdoor, text can be provided in three different fields. First, there is the headline of the review, where employees have to summarize their review. The second and third field are the pros and cons of working at the company, which describe the positive and negative points respectively. Here, the previously mentioned condition of working with positive messages only arises again. Only the headline of the review and the text provided in the pros field were used for further content analysis. In this way, the negative statements are ignored. Both the headline as the pros of the review were combined as one text unit for further analysis.

To prepare the text for the subsequent topic modeling, the steps described in the study of Symitsi et al. (2021) are used as guidelines. For a topic model, it is important that meaningless words or words that are difficult to interpret as a part of an overarching topic, are excluded from the analysis. For example, it can be presumed that adjectives as “good” or “great” will not contribute to the output of topics. Therefore, English stop words and a list of descriptive adjectives were removed from the text. Furthermore, it is likely that employees mention the name of their employer or their own job title in the review. Also these two dimensions do not contribute to meaningful topics according to Symitsi et al. (2021), so the company names as well as the functions of employees were removed from the text field. Next, typical modifications as the removal of numbers and punctuation were executed. Subsequently, the remaining words were stemmed to their root word. For example, stemming the words “information”, “informative” and “informed” will all result in the word “inform”. To conclude, extra whitespaces are removed and all words are tokenized (i.e. breaking up the document in the document in single words). The corpus of documents, that is the output of these preparation steps, can be visualized as a collection of reviews, which all contain a list of single, stemmed words. This corpus will serve as the input of the topic model.

The model that will be used in this study is Latent Dirichlet Allocation (LDA). LDA is one of the first models in the field of topic modeling, but even today, the majority of the best models are adaptations of the traditional LDA model. In addition, LDA is still recognized as the standard model for general-purpose research (Churchill & Singh, 2022). The LDA model is also used in similar studies attempting to discover topics in reviews (Luo et al., 2016; Tapi Nzali et al., 2017). As already discussed in the literature review, an important parameter of topic modeling that requires human input, is choosing the number of topics. There is no method to determine the ideal number. However, the R package *ldatuning* provides several metrics to support the decision. It is important to note that these metrics should be considered as indicative rather than definitive guidelines. The metrics *CaoJuan2009* and *Arun2010* should be minimized, while *Griffiths2004* and *Deveaud2014*

should be maximized (Nikita, 2020). These metrics represent quantitative measures to evaluate topic model such as interpretability, coherence, and complexity of the resulting topics. Based on these metrics, which can be consulted in figure 3, six topics seemed an appropriate number of topics. It is crucial to emphasize that these quantitative metrics give insights in the statistical quality of topic models. However, human assessment, described as qualitative evaluation, is equally important to gain a more comprehensive understanding of the underlying topics. This human evaluation is based on ‘common sense’ and is about manual inspection of the output (Churchill & Singh, 2022).

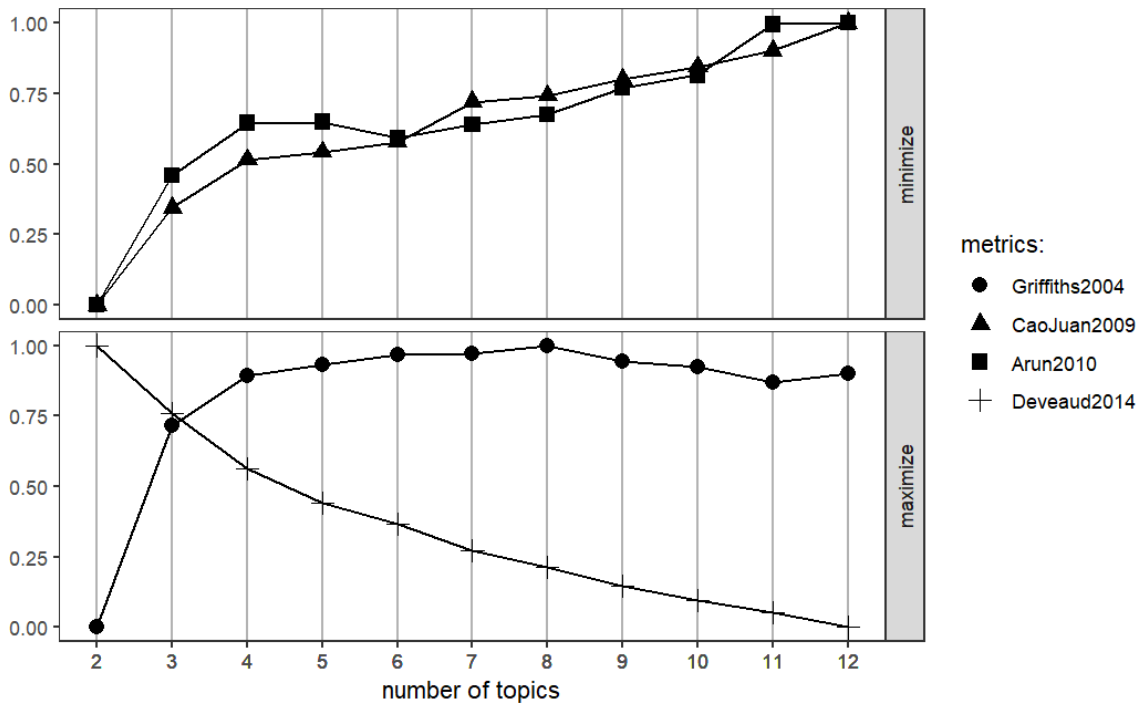


Figure 4: Metrics to estimate the best fitting number of topics

## 4. Results

### 4.1 Exploratory Analysis

As already mentioned in the previous section, 4821 reviews are collected from twenty-five different companies. Two important variables that describe typical employee advocacy behavior are talking positively about the company and promoting it to others (Thelen, 2020). One can draw a parallel between talking positively about the company and the ratings employees can assign to the company within the review. A rating of five means that the employee is extremely positive about the company, while a rating of one means being extremely negative. In figure 5, the ratings are compared between current and former employees. Despite being underrepresented in the sample, former employees gave a rating of one, two or three more frequently than the current employees. In addition, current employees tend to give higher ratings (i.e. a rating of four or five) more often than they gave lower ratings. For the former employees, this remarkable difference is not present. This is also reflected in the average rating. The average rating for current employees is 4,163. The average rating for former employees is 3,614.

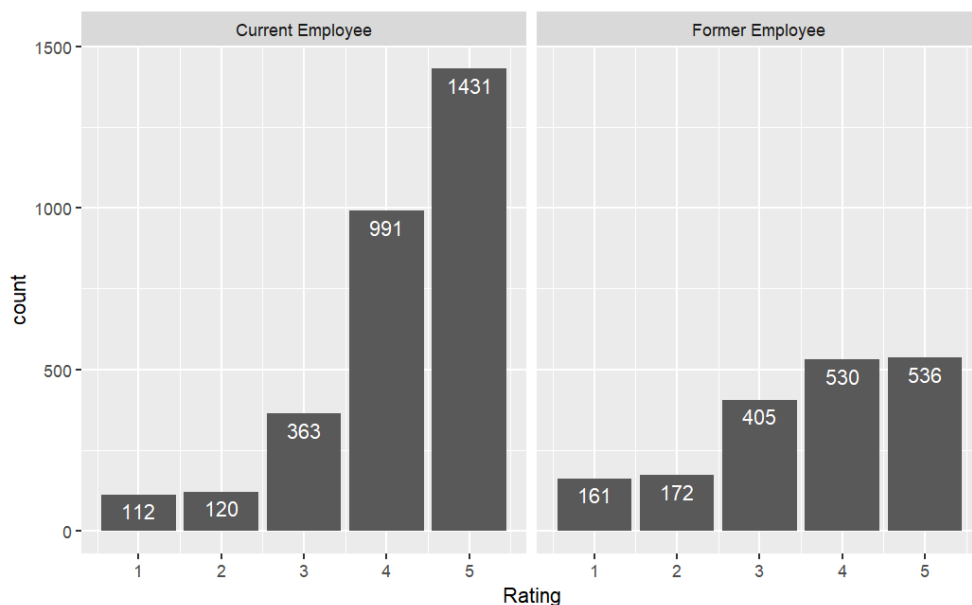


Figure 5: Comparison of the rating distribution between current and former employees

A statistical test was conducted to determine the significance of the difference in ratings given by current employees compared to former ones. As this problem is about comparing two independent populations that do not follow the normal distribution, the Wilcoxon rank-sum test for independent populations seems the most appropriate (Lind, Marchal, &Wathen, 2020). The null hypothesis is that the ratings given by both groups are the same, while the alternate hypothesis is that the ratings given by current

employees are higher than the ratings given by former employees. The p-value of the test is smaller than  $2,2e-16$ , which is lower limit for a p-value in R. This extremely small p-value means that the null hypothesis can be rejected and it can be concluded that the ratings given by former employees are significantly lower than the ratings given by former ones.

This pattern is also visible when the recommendations are mapped. Employees get the option to indicate whether they would recommend the company to others. However, it is not obligated to fill in this option, so the possible answers for this field are 'yes', 'no' and 'no opinion'. The latter will not be taken into account. When the differences between 'yes' and 'no' are mapped (figure 6), current employees seem to answer 'yes' significantly more compared to 'no'. This preference is also present for former employees. However, the difference between 'yes' and 'no' is not that remarkable. When considering the percentages, in 53,23% of the reviews of current employees, they indicated to recommend working at the company. For former employees, this percentage is only 34,70%. Furthermore, 10,70% of the current employees did explicitly discourage working at the company, while this percentage is 21,50% for former employees. In the remainder of the reviews, employees had no opinion.

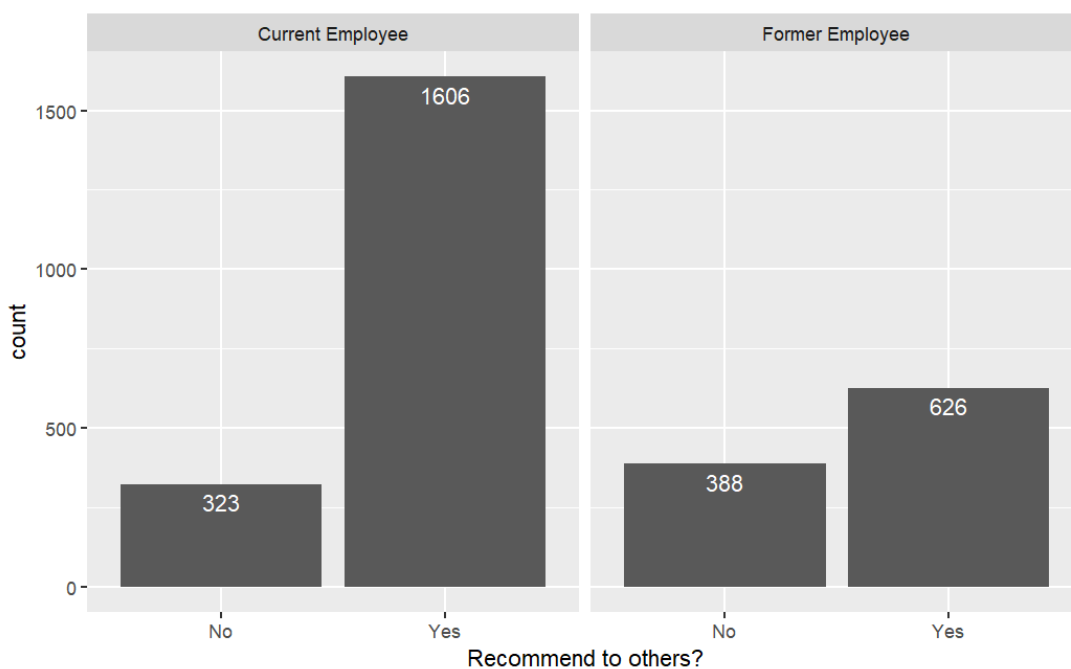


Figure 6: Comparison of the 'recommend to others?' distribution between current and former employees

Also here, a statistical test was conducted to determine the significance of the difference in the amount of recommendations by current employees compared to recommendations by former ones. As this problem is about comparing two independent populations on a nominal variable (i.e. yes or no), the two-sample test about proportions is used (Lind et

al., 2020). The null hypothesis is that there is no difference in the proportion of employees who recommended the company by the two groups, while the alternate hypothesis is that the proportion of recommendations given by the current employees is higher than for the former employees. The p-value of the test is again smaller than  $2,2e-16$ . This extremely small p-value means that the null hypothesis can be rejected. It can be concluded that the proportion of current employees who recommend the company is significantly higher than the proportion of former employees.

## 4.2 Content Analysis

In this section, the text of the reviews will be analyzed. The analysis is twofold. First, the sentiment analysis aims to get a view on the sentiment used in reviews and make comparisons between ratings and between current and former employees. Secondly, the topic modeling analysis aims to reveal the themes employees talk about when speaking in favor of their employer.

### 4.2.1 Sentiment Analysis

To continue the comparison between current and former employees, a sentiment analysis was conducted. A sentiment score of zero means a neutral sentiment, a positive score means a positive sentiment and a negative score means a negative sentiment. The further away from zero, the stronger the sentiment is (Rinker, 2017). Based on the results of exploratory analysis in the previous section, it is expected that former employees will be more neutral or negative compared to current employees. In other words, a lower sentiment score is expected for former employees in comparison to current employees.

After a first look at the boxplots of the sentiment scores per rating, as visualized in figure 7, it is clear that the positivity of reviews increases for reviews with a higher rating, which intuitively seems a logical trend. Furthermore, it can be noted that the median sentiment per rating is (slightly) positive for every rating. For the reviews with a rating of one, the median sentiment is close to zero, which means that even employees who rate their company very negatively, still express their opinions in a neutral way. The increase in sentiment score of reviews when the rating of the reviews increases, is quite steady. However, the increase between rating four and five is smoothing out. Here, no remarkable difference in the sentiment score between reviews with these two ratings is noticed.





Figure 7: Boxplots of sentiment per review, by rating

There is one review with a rating of five that has an extremely low sentiment score of -1,432. This seems contradicting, as an employee who really promotes the company with a rating of five, expressed his opinion in a negative way. After investigating this review individually, beside the fact that the employee likes the good atmosphere, the review is mainly about the challenging environment at the company.

When the mean sentiment score is taken into account per employment status, reviews of current employees have an average of 0,616, while reviews of former employees have a mean sentiment score of 0,526. This difference reflects what already was shown in the previous section. While former employees do not only tend to give lower ratings, the text in their reviews is also less positive than the text of current employees. When the average sentiment scores are calculated per rating, it becomes clear that former employees express their opinions more neutral than current employees, especially for lower-rated reviews. This difference decreases when the rating of the review increases. Even more, for reviews with a rating of five, former employees seem to be slightly more positive than current ones. These insights are visualized in figure 8. Also here, it is worth noting that the cons text field of the review is ignored.

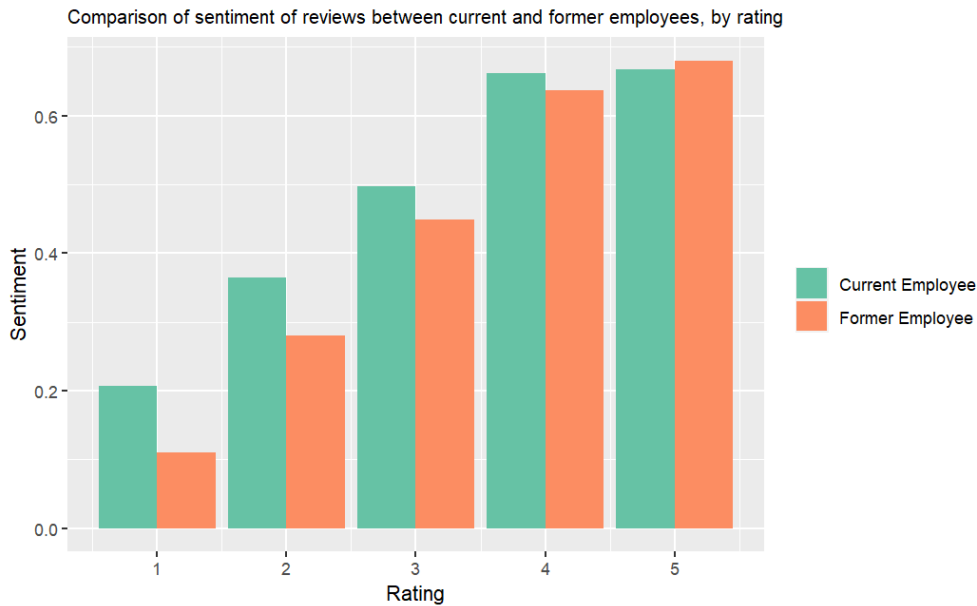


Figure 8: Comparison of sentiment between current and former employees, by rating

A statistical test was conducted to determine the significance of the difference in the sentiment used by current employees compared to former ones. As this problem is about comparing two independent populations on an interval variable (i.e. sentiment score), the two-sample test of independent samples with the t-distribution seems appropriate (Lind et al., 2020). However, an important condition need to be fulfilled in order to use this type of test. Both samples need to follow a normal distribution. When inspecting the distribution, it can be concluded that the condition is met, as visualized in figure 9.



Figure 9: Distribution of sentiment for current and former employees

Next, it need to be decided whether the test will be conducted with equal or unequal variances. An F-test to compare variances was conducted and the p-value of 0,0002. This small p-value indicates that the variances of both samples are unequal, so the two-

sample test of independent samples with unequal variances is selected. The null hypothesis is that there is no difference in the sentiment expressed in reviews between current and former employees, while the alternate hypothesis is that the sentiment is higher for current employees compared to former ones. The p-value of the test is 6,067e-14. This extremely small p-value means that the null hypothesis can be rejected. It can be concluded that the sentiment expressed in reviews is significantly higher for current employees.

#### 4.2.2 Topic Modeling

In this section, the topics discovered in the reviews of employees will be discussed. It is worth to mention that only reviews with a rating of four or five are included and only the headline and the pros field of the reviews are used as input for the model. The output of the model is visualized in figure 10.

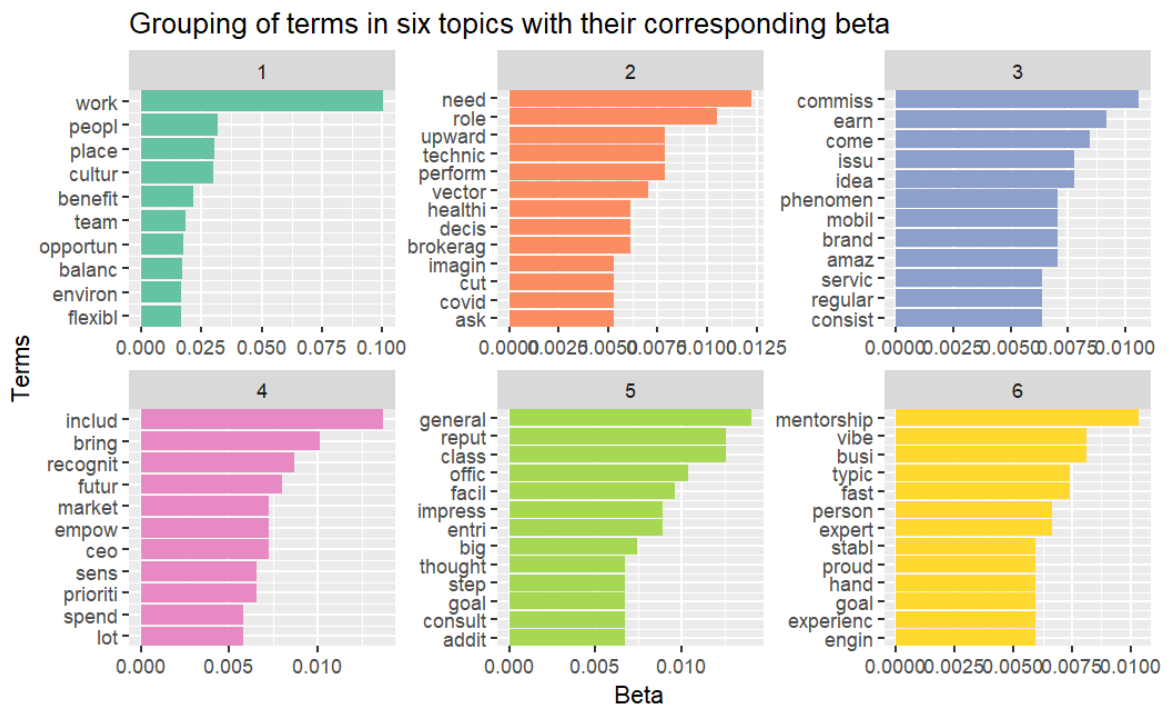


Figure 10: Grouping of terms in six topics with their corresponding beta

The output consists of a collection of terms that define the overarching topic. The beta distribution is computed for each term of a topic and described how significant a term characterizes the topic (Moro, Cortez, & Rita, 2015). In other words, the higher the beta value of a term for a given topic, the more the topic is characterized by the term. Thus, when trying to label a topic, the terms with the highest beta value are the most important.

In the first topic, work is clearly the most dominant term and is followed by people, place and culture. Further in the list, team and environment appear. The first topic can be summarized as the atmosphere at work. It seems that the company culture (i.e. whether

the company is flexible and people have a good work life balance) plays an important role in this atmosphere. When looking at the topics defined by Glassdoor to filter reviews upon, which are *remote work, work life balance, career development, compensation, coworkers, culture, benefits, workplace, management, senior leadership, diversity and inclusion* and *covid 19*, it seems that the first topic that is provided by the models is a combination of work life balance, coworkers, culture and workplace.

The second topic seems more difficult to interpret, as it seems that there are more context-specific words present. However, role and needs indicate that this topic is mainly about job role, a topic label that also appears in the study of Symitsi et al. (2021). Moreover, covid and health appear. In the study of Luo et al. (2016), a topic containing health as a key word was labeled as safety. To conclude the second topic, it seems that two different themes are discovered, namely job role and safety.

In the third topic, commission and earn are the most dominant topics. The other terms are more difficult to interpret. Therefore, the third topic could be labeled as compensation or income.

Fourthly, recognition, CEO and empowerment appear. This topic could be about the relationship between the employee and their superior. When looking at the predefined topics by Glassdoor, management and senior leadership seem suitable labels.

In the fifth topic, class, reputation and impress seem dominant topics that can be interpreted as one overarching subject, namely the status of the company. Moreover, employees talk about the office and the facilities at work in this topic. These terms can also contribute to the status of a company. Consequently, the fifth topic will be labeled as status. Symitsi et al. (2021) and Jung & Suh (2019) also uncovered this topic and labeled it as company reputation and firm image respectively.

In the last topic mentorship and expert are prevalent terms. Also proud, person and experience are covered. It seems that the sixth topic is about how the employees are coached at their job. Expert, person and proud are also terms that could fit in this theme. Therefore, the last topic will be labeled as coaching. This topic could not be retrieved from the other studies. They all identified topics regarding leadership and management. However, mentorship and coaching can also be executed by a more experienced employee of the team.

To conclude the topic modeling of the Glassdoor reviews, it is worth to repeat that topic models do not guarantee an interpretable output for humans. Therefore, explanation of terms in topics and the labeling of topics are based on assumptions and the interpretation

of the researcher. Despite the drawbacks of this type of analysis, several topics were uncovered: work life balance, workplace, company culture, job role, safety at the job, compensation, management, company status and mentorship. Mentorship and safety at the job were not identified in previous studies (Jung & Suh, 2019; Symitsi et al., 2021). Furthermore, the major difference with these previous studies is that both studies took all reviews and all text into account, while this study only focused on the positive reviews (i.e. reviews with a rating of four or five) and did not consider the cons of the review.

## 5. Discussion

This study contributes to the field of employee advocacy on social media by examining the actual behavior of employees on online platforms (Glassdoor for this study). This research can be divided in two sub-studies. First, a blank spot in the domain of employee advocacy is explored by comparing the behavior of former and current employees. Second, this study aimed at uncovering the topics where employees talk about when promoting their employer.

As former employees have the potential to be an equally important source of information about a brand as current employees, it can be valuable to examine the differences in behavior between former and current employees. First of all, when looking at the ratings that employees give on their Glassdoor reviews, a first view on the dissimilarity between both groups is uncovered. Employees seem to be less positive about their former employer compared to their current employer. This trend is strengthened by the data on whether employees would recommend their (former) employer to their network. Also here, employees tend to recommend their former employer less than they would recommend their current employer. Finally, the sentiment analysis of the text content described by employees in their review is in line with the previous findings as well. Employees described their opinion in a less positive way about their former employer than about their current employer. Statistical tests confirm these differences. The behavior of current employees on Glassdoor is significantly more in favor of the company compared to the behavior of former ones. Even when both groups promote their (former) company, current employees are still more positive. So, this study sheds a first light on the differences in advocacy behavior between current and former employees. As the findings show a difference in behavior, it can be a starting point for future research to compare whether former employees are seen as equally trustworthy as current employees. Moreover, validating these findings by an interview or a survey with a group of both current and former employees can be a direction for future research.

The main drivers of employee advocacy behavior found in the literature and described in the literature review were effective leadership, job satisfaction, incentives and rewards, and employees' perception of the brand. The driver *incentives and rewards* stands for rewarding employee advocacy behavior. It seems not logical that employees will describe that they write a review on Glassdoor because they will be rewarded for promoting the company. Therefore, not all drivers imply to be a topic in a review. However, it is possible to draw a parallel between several drivers of employee advocacy behavior and the content discussed by employees in their reviews. First of all, the driver effective

leadership seems to be covered by the topics management and mentorship. Furthermore, the driver job satisfaction is about getting recognition at the job. Recognition appeared in topic four, which was labeled as management. Thus, recognition is recurring term in positively rated reviews of employees. In addition, job satisfaction is about a pleasant environment at work. This is covered by the topics *work life balance*, *workplace*, *company culture* and *job role*. Lastly, the employee's perception of the brand is a driver of employee advocacy behavior. Also this driver is covered in an uncovered topic, namely company status. So, it can be concluded that three of the four important drivers of employee advocacy behavior, according to the literature, are discussed by employees in the highly rated reviews (i.e. reviews with a score of four or five) on Glassdoor. Nevertheless, the output of topic modeling is based on the interpretation of the researcher. In addition, topic modeling is a type of unsupervised learning. This means that the topics are based on which terms statistically fit together, and not based on the meaning of the terms. This is one of the main limitations of this study. Therefore, it is important to be careful with these conclusions. Another limitation is that the texts of the reviews on Glassdoor are rather short. This is not an ideal condition for topic modeling. Notwithstanding these drawbacks, the topic modeling analysis uncovered several prevalent groups of terms in the opinions of employees about their employer. A possible research track for future research could be to uncover topics on other social platforms where online employee advocacy is present such as LinkedIn. When a broad view on the actual advocacy behavior of employees on social media is mapped, future research could investigate which topics have the biggest impact on the consumer or job seeker.

## 6. Conclusion

Various studies in the field of employee advocacy have examined the drivers of the advocacy behavior for employees based on surveys and interviews with them or their employer. Furthermore, other studies have shown that people assign a higher level of trust to a face than to a logo, which has shed a new light on the employee as an important part of the promotion instruments of the brand. In the current era of social media, where these employees can reach thousands of consumers or job seekers with a single post, this role has only grown importance. However, in the field of employee advocacy, studies that have researched the actual advocacy behavior of employees on social media platforms are limited. This study attempted to address this gap by analyzing the content posted by employees in regard to advocating their company. Moreover, in the literature, no distinction is made between employees talking about their current or former employer. Therefore, this study aimed to take this dimension into account. In other words, also the difference in employee advocacy behavior on social media between current and former employees was examined.

This study tries to contribute to the literature by getting a first view on the topics that are discussed online by employees when talking about their employer. Getting an understanding of the actual advocacy behavior will facilitate research into what types of behavior have the biggest impact on consumers and job seekers. Furthermore, the differences in the behavior between current and former employees are a valuable starting point for future research to examine the reliability of advocacy behavior of former employees. In this way, companies can gain knowledge in how they can ensure that former employees will still behave as advocates of the brand.

The results from the exploratory analysis indicate a difference in advocacy behavior between former and current employees. On the one hand, employees are less likely to advocate the brand of their former employer. Giving a high rating and recommending the employer is less likely for former employees in comparison with current employees. On the other hand, even when former and current employees give an equal rating, employees are likely to express their opinion in a more positive way when talking about their current employer in comparison with their former employer. Furthermore, the topic modeling analysis resulted in nine topics. The uncovered topics are: work life balance, workplace, company culture, job role, safety at the company, compensation, management, company status and mentorship. Although these topic labels are based on interpretation of the researcher, the most dominant terms offer a view on what employees are talking about when promoting their company.



Thus, these insights in the online advocacy behavior of both current and former employees can serve as a resource for future research to optimize the way how employees can be shaped as trustworthy promotion instruments of a brand.

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