

ARTICLE

## Adjectival Marking of Stance in Twitter: A Corpus-Assisted Discourse Analysis of Saudi Women's Tweets on Social Reforms

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### ABSTRACT

Writers and speakers use various linguistic techniques to convey their stances. Researchers have shown significant interest in studying these methods over the years. With the rise of social media, it is anticipated that examining how writers express their stances on Twitter and other social media platforms can provide valuable insights, particularly on contentious issues, such as social reforms and women's empowerment. Accordingly, the present study employed a corpus-assisted discourse studies approach to analyse a 5,265-tweet corpus to understand how Saudi women perceive the recent social reforms in their country and how they use adjectives to convey their stances on these reforms. The study's key findings indicated that Saudi women generally view the reforms positively and tend to use evaluative specifically laudatory adjectives more frequently than attitudinal ones to express their support for these changes. The results reveal that laudatory adjectives function as prominent stance markers in social media discourse, supporting their inclusion as a distinct subcategory of evaluative stance markers within this register. These findings have implications for future research, suggesting that analysing linguistic structures in social media can offer valuable insights into the stances of social media users and can be informative for policymakers involved in social reforms.

**Keywords:** CADS; Saudi Vision 2030; Social Reforms; Stance-Taking; Women's Empowerment

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# 1. Introduction

A widely explored area in communicative strategies utilised by writers and speakers is their stance. Scholars have explored how writers and speakers employ various linguistic tools to convey their stances. They have also attempted to categorise and standardise the linguistic devices or markers used to convey stance and investigate how writers and speakers employ these devices to position themselves in relation to their propositions and align with their audience (i.e., stance-taking). Previous research has also examined factors related to stance, such as the process of taking a stance<sup>[1]</sup>, the variation in the use of stance devices across different registers<sup>[2]</sup>, and how these devices relate to the overall structure of communication<sup>[3]</sup>. The findings generated different definitions and taxonomies of stance, primarily depicting the process as a linguistic, social, and cognitive phenomenon that employs specific linguistic features and represents certain linguistic functions.

While there is a considerable amount of literature on stance, stance-taking, and stance markers, most of this literature focuses on academic writing and, to a lesser extent, on media and political discourse. Since taking a stance is not exclusive to these fields, it is suggested that exploring the concept of stance-taking in emerging forms of communication, like social media discussions, could offer valuable insights into how writers in these contexts use language devices to convey their stance. It is also believed that examining this concept within existing frameworks and models would yield more reliable results, as these frameworks have proven to be effective<sup>[4]</sup>.

Following the introduction of Saudi Vision 2030, significant changes have occurred, transforming Saudi society and economy, as well as reshaping the lives of Saudi women. Prior to these changes, Saudi women encountered societal limitations such as strict guardianship laws, driving restrictions, and limited opportunities for involvement in public activities and employment. In contrast, social reforms in Saudi Arabia have empowered women in various aspects of society. These reforms have sparked extensive discussions on social media, particularly on Twitter, one of the most popular social media platforms in Saudi Arabia. These discussions encompass diverse viewpoints: while some commend and celebrate the reform, others call for further progress, arguing that more needs to be done. Additionally, some discussions

emphasise that reforms should be considered rights rather than privileges. Given the characteristics of the Saudi community, it is reasonable to expect further discussions on how these changes might impact the conservative Saudi society and influence its traditions and customs.

Given the importance of these transformations and the value of women's stance on these reforms, it is essential to examine these changes in order to gain a comprehensive understanding of their impact and to support their sustained development. Hence, this current study aims to explore this issue by addressing the following questions.

- What are Saudi women's stances towards the recent women-related social reforms in Saudi Arabia, as expressed on Twitter?
- How do Saudi women tweeters utilise adjectives to express their stances towards the reforms in their country?

The study's innovative application of Biber et al.'s<sup>[5]</sup> framework on stance, particularly focusing on adjectives as a key linguistic tool for expressing stance on Twitter regarding social reforms by major stakeholders, is expected to provide policymakers with insights into understanding public opinions towards the reforms more effectively. It may also pave the way for further research in the field, exploring Saudi women's discourse on social reforms and assessing their attitudes towards these issues. Future studies could employ other parts of Biber et al.'s<sup>[5]</sup> lexico-grammatical framework for stance or be conducted on a larger scale to examine all linguistic devices within the framework.

## 2. Literature Review

### 2.1. The Concept of Stance

Stance refers to the writer or speaker's attitude towards a particular matter or issue, including their opinions, beliefs, and values. More specifically, stance has been described as expressing attitudes, emotions, and opinions through grammatical and lexical items<sup>[6]</sup>.

The concept of stance was first introduced as part of systematic functional grammar by Halliday and Matthiessen<sup>[7]</sup>. In this regard, Halliday identified three metafunctions of language: ideational or experiential (construing a model of experience), interpersonal (enacting social relationships), and textual (creating relevance to context). Within the in-

terpersonal metafunction, the clause serves as the unit of exchange between the speaker and the listener, facilitating the exchange of opinions and attitudes<sup>[8]</sup>.

Biber et al.<sup>[5]</sup> explained the concept of stance by proposing a sociocognitive approach. They emphasised the role of linguistic features in expressing stance. They argued that stance can be identified through lexico-grammatical devices, such as modal verbs and adverbs, or lexical (value-laden) devices, such as nouns and adjectives. Biber et al.'s<sup>[5]</sup> research highlighted the correlation between linguistic forms and communicative functions, shedding light on how speakers and writers convey their attitudes and beliefs through language.

These definitions suggest that stance can be conceptualised in terms of both psychological and linguistic backgrounds. It also involves the behaviour of writers or speakers towards both their attitudes and those of their readers or listeners. Hyland refers to this behaviour as the interaction, which means engaging with an issue and the other individuals involved in that issue<sup>[9]</sup>. From a linguistic perspective, linguists are interested in detecting, measuring, analysing, and classifying stances<sup>[6, 9-11]</sup>.

From a sociolinguistic perspective, stance refers to a social act expressed publicly through open communication, where one assesses things, identifies people (including the actors and others), and shows agreement or disagreement with others, all in relation to important social and cultural issues<sup>[12]</sup>. Moreover, stance refers to the methods people use during a conversation to be polite, certain, sceptical, or convinced<sup>[13]</sup>. These positions are marked using specific linguistic and paralinguistic features that mark the speaker's attitude or feelings. While paralinguistic features are more evident in spoken registers (including tone, pauses, and loudness), stance-marking in written registers is accomplished using more overt features such as grammatical and lexical items.

## 2.2. Stance Taking in Discourse

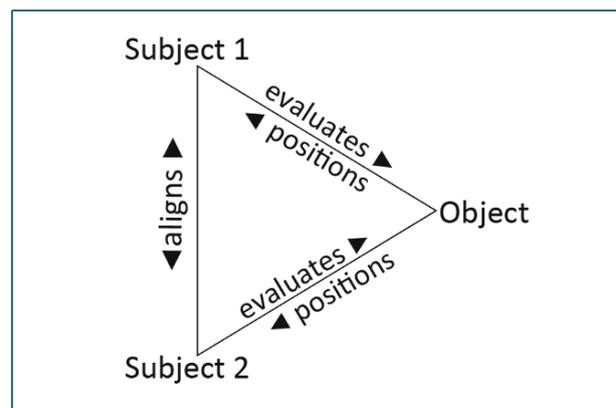
Stance-taking is a term related to stance. According to Kaltenböck et al.<sup>[14]</sup>, stance-taking is the preferred term when referring to how speakers utilise language to either mark their attitudes or calibrate their propositions to match those of their interactants. Stance-taking can be viewed as a dynamic process in which language users express their

stances through both linguistic and nonlinguistic means. The preference for the term stance-taking stems from the fact that it changes the verb to be to an interactive rather than fixed one<sup>[13]</sup>. It is a mechanism by which speakers align or misalign themselves with others, establishing their position and identifying, classifying, or commenting on a particular issue<sup>[15]</sup>.

Stance-taking can be achieved through different means. These means, which are termed stance markers, devices, or resources, include various linguistic features, such as vocabulary, grammatical and discourse structures, and phonological and paralinguistic features<sup>[16]</sup>. While it is challenging to trace phonological stance markers, Karkkainen argued that stance is not only constructed by the grammatical or lexical devices but also includes the presentation order of those markers and the parallelism between participants in using such markers<sup>[17]</sup>.

Stance-taking is perceived as a structured process involving distinct steps or approaches, each comprising specific parts or stages. Du Bois<sup>[12]</sup> proposed a framework of stance-taking that he termed the stance triangle. In his framework, Du Bois suggested that stance-taking is a triune act where the stance taker "(1) evaluates an object, (2) positions a subject (usually the self), (3) aligns with other subjects"<sup>[12]</sup>.

**Figure 1** explains Du Bois's framework of stance-taking.



**Figure 1.** Stance triangle.

Note: Adapted from DuBois<sup>[12]</sup>.

In other words, to take a stance is to position oneself regarding the topic of the conversation or the participants involved in the conversation<sup>[18]</sup>. Accordingly, stance-taking is a necessary outcome of engaging in a conversation and expressing issues in words<sup>[4]</sup>.

Over the years, stance in discourse has been addressed

from different perspectives. Stance in academic writing has been the most extensively investigated issue<sup>[2, 9, 11, 19, 20]</sup>. Studies on stance within the area of academic writing in different genres and disciplines have mostly considered how academic writers position themselves in relation to what they write. Other studies have addressed stance in conversational discourse by investigating the effects of dialogic interactions on stance-taking, which is believed to transform stance-taking into a dynamic process that can be altered in response to others' utterances<sup>[16, 17]</sup>.

With the emergence of online interaction and social media platforms, some studies have investigated how stance-taking is performed in this emergent cyberspace<sup>[21–23]</sup>. According to Chandrasegaran and Kong<sup>[22]</sup>, online discussion and posting involve a type of interaction that is closer to face-to-face interaction than to writing. Accordingly, studying stance and stance-taking might reveal different techniques. However, studies in this domain are still limited, and most of them adopt more technical approaches, as they primarily focus on methodological approaches for detecting stance markers in web-based and social media platforms. The present study aimed to fill in the gap by adopting a definition of the term 'stance' to indicate Saudi women's opinions, attitudes, feelings, and evaluations of the new reforms in their country, which have led to their empowerment in social life and work opportunities.

### 2.3. Recent Reforms Related to Women in Saudi Arabia

The status of Saudi women has undergone a remarkable transformation following a series of reforms initiated with the implementation of Saudi Vision 2030. These reforms have demonstrated a transformative effect on women's social and economic status within the country<sup>[24]</sup>. It is observed that the declaration of the Saudi Vision 2030, with its focus on women's rights reform, has brought about significant changes in Saudi society<sup>[25]</sup>. The Saudi Vision 2030 initiative acknowledges the vital role of Saudi women in the country's economic and societal development. This acknowledgement is reflected in the following statement made by Crown Prince Mohammed bin Salman: "I support Saudi Arabia, and half of Saudi Arabia is women. So, I support women"<sup>[26]</sup> (para 3). This statement highlights the fact that Saudi Vision 2030 emphasises the role of Saudi women in their society, un-

derscoring that Saudi women are a vital component of the Kingdom's strength. This quote from the Crown Prince is a significant public declaration of support for women in Saudi Arabia and a substantial departure from the previous stance of rigid gender restrictions that traditionally characterised Saudi society.

The Saudi Vision 2030 initiative tackles many issues related to women's rights, including male guardianship, female driving, gender segregation, and religious policing<sup>[27]</sup>. A series of reforms has been initiated to improve women's status in Saudi society by empowering them in various fields and enhancing their scientific, cultural, practical, and economic standing<sup>[28]</sup>. The aim is to create an environment that enables women to play a more active role in society and the workforce, ultimately leading to a vibrant society.

The words within Saudi Vision 2030 have been transformed into practical actions through the implementation of new legislative provisions. The Saudi government has enacted several regulations to provide women with greater agency and freedom, thus empowering them to participate actively in the country's societal, economic, and political affairs<sup>[24]</sup>. On June 24, 2018, the driving ban on women was officially lifted, and women were finally allowed to drive a car on their own and obtain driver's licenses for the first time in the history of the Kingdom. This reform has had a significant impact on women's day-to-day lives. For example, the ability to drive has enabled women to move more freely, without reliance on a male driver or guardian, and to carry out daily tasks more conveniently<sup>[25, 29]</sup>. This opportunity has marked a significant step towards independence and freedom in the social lives of Saudi women.

In August 2019, the travel restrictions on women were also lifted. Prior to this date, women were required to obtain the consent of a male guardian to obtain passports and travel abroad. With this reform, women over 21 can apply for a passport independently and travel without requiring permission from a male. This newfound autonomy has fostered personal growth among Saudi women, creating opportunities for academic and professional development.

A key component of the Saudi Vision 2030 initiative is expanding work opportunities for Saudi women across various sectors within the country. Before increasing women's participation in the labour market, the government implemented several legal amendments to the existing legislation.

It established a new set of regulations to protect women and affirm their rights in the workplace<sup>[30]</sup>. These regulations were specifically designed to create a safe and comfortable work environment for women, safeguard women from workplace harassment, and eradicate gender-based discrimination. In addition, they establish the right to maternity leave, further supporting women during critical stages of their personal and professional lives. Following these reforms, the women’s participation rate in the labour market increased from 19.4% in 2017 to 23.2% by the end of the second half of 2019<sup>[30]</sup>. In addition, women have started breaking barriers in fields traditionally dominated by men, such as aviation and the military, demonstrating their capabilities and shattering stereotypes. As a result of these reforms, Saudi women have made considerable progress in economic participation.

### 3. Methods

This study adopted a corpus-assisted discourse study (CADS) approach, where a corpus was compiled and analysed both quantitatively and qualitatively to generate its results.

#### 3.1. The Corpus

##### 3.1.1. Corpus Data Collection

For the present study, a corpus was compiled incorporating tweets extracted from hashtags related to the recent reforms in Saudi Arabia. Although the tweets are publicly available on the Twitter website, meaning they are unrestricted data, the tweeters’ identifying information has been removed. This includes their geolocation details and usernames to protect participants’ privacy and comply with the IRB requirements. In this study, tweets were not presented in complete form; instead, only brief excerpts were included in the form of concordance lines to illustrate the use of stance markers. These excerpts were carefully selected and anonymised to ensure that no identifying information could be inferred. No usernames, tweet IDs, or metadata were shared or included in the thesis or the dataset. This approach was designed to protect user privacy and is consistent with ethical guidelines for the use of publicly available social media data in academic research.

The corpus was compiled in accordance with the corpus design criteria suggested by scholars in corpus linguistics,

such as Baker<sup>[31]</sup>, McEnery and Hardie<sup>[32]</sup> and Sinclair<sup>[33]</sup>. The corpus is named the Saudi Arabian Women’s Tweet (SAWT) corpus. It is an interesting coincidence that the abbreviation of the corpus name SAWT is phonologically equivalent to the Arabic word صوت, meaning ‘voice,’ and this corpus is considered a representation of Saudi women’s voices in cyberspace! The tweets were collected based on specific criteria: they had to be authored by Saudi women, written in English, topically relevant to women’s empowerment reforms, and posted between 2017 and 2022.

1. **Gender (Saudi women):** To determine the gender of tweet authors and keep only tweets written by women, an AI-based gender classification model (the Genderize.io API) was used and integrated into the R scripts. **Figure 2** outlines the processes involved in using this model. The model predicts the likely gender of users’ names by comparing each name in the vector to a large dataset of gender-labelled names. This dataset comprises a diverse range of names and their probable gender assignments, as inferred from a global social network database. The output of this procedure consisted of 65,425 tweets from female users. Building on this output, the next step in refining the dataset was to ensure that each tweet’s content was directly relevant to the research focus of Saudi women’s empowerment within social reforms.

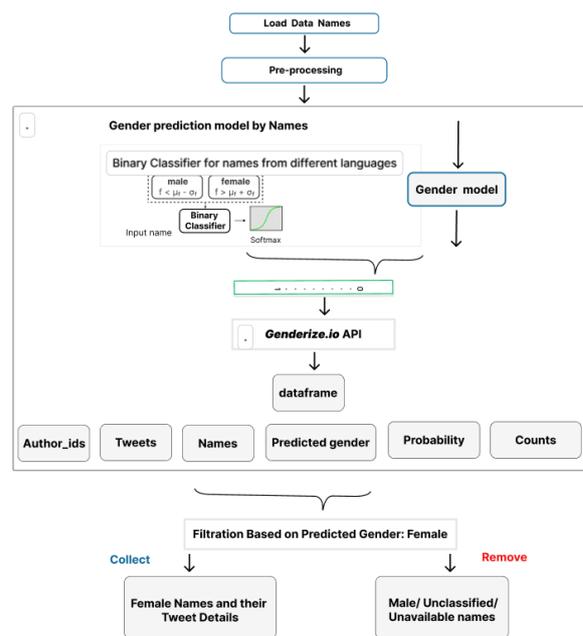


Figure 2. Gender determination process for Tweepsters using Genderize.io API.

2. **Relevance to Topic:** To ensure the relevance of the data to the Saudi women’s empowerment theme, only tweets discussing the new legislative provisions introduced by the Saudi Vision 2030 initiative were considered. Tweets were screened for topical relevance to Saudi women’s empowerment, based on a keyword list derived from legislative texts, trending hashtags, and Saudi women’s blogs. Only tweets matching at least two keywords were retained to ensure thematic consistency. This automated filtering reduced researcher bias and ensured that the data remained focused on the core subject.
3. **Language:** The study focused only on English tweets, including Arabic tweets, which was deemed impractical as it would have necessitated translating them into English. This translation process could have complicated the analysis due to differences in lexical, grammatical, and syntactic features between English and Arabic<sup>[34, 35]</sup>.
4. **Timeframe:** The timeframe for this study spanned from September 2017 to March 2022, coinciding with the period during which Saudi Arabia underwent significant social reforms, particularly for women<sup>[36]</sup>. The execution of these inclusion criteria ensured a tar-

geted and efficient data collection process closely aligned with the research aims.

### 3.1.2. Corpus Compiling

In the first stage of data collection, a total of 15,794 tweets were extracted from 16 hashtags related to women’s empowerment, social reforms, and new legislation regarding these issues. It was observed that while the tweets were identical in genre, topic, gender of the tweeter, and register, there was a significant variation in the length of the tweets in terms of word count. Therefore, to sample from the pool, it was necessary to maintain the representativeness of each type of tweet used to ensure the representativeness of each category and balance between the corpus files<sup>[37–39]</sup>. Therefore, the corpus was constructed using the stratified systematic sampling method. Initially, the tweets were categorised into three distinct groups based on their length: short, medium, and long. Subsequently, a systematic sampling method was applied within each category, where one tweet was selected after every two intervening tweets. It was found that the shortest possible tweet for analysis contains three words, and the longest contains 60. Accordingly, the sampling frame has generated a corpus with the statistics shown in **Table 1**.

**Table 1.** The SAWT corpus statistics.

Category	Length	Tweets Count	Word Count
Short tweets	3–22	2,905	39,591
Medium tweets	23–41	2,197	63,676
Long tweets	42–60	163	7,265
Total		5,265	110,532

The corpus underwent further cleaning and preparation processes, aiming at preparing texts for corpus analysis. Emojis, links, and other noise data may have affected the corpus size and token numbers, potentially distorting the analysis. Therefore, they were removed. The final step was to upload the patch TXT files to the #LancsBox corpus software to tag the corpus. POS tagging provided by the software was used to determine the grammatical class of each word in the corpus and then to compute the frequency and dispersion of adjectives and other value-laden words within the corpus. A total of 110,532 tokens (words) were identified from the #LancsBox corpus software.

## 3.2. Data Analysis

### 3.2.1. Corpus Analysis Software

For the quantitative analysis of the corpus data, the study utilised #LancsBox software for corpus linguistic analysis. The software was developed by the UCREL (University Centre for Computer Corpus Research on Language) at Lancaster University in the UK and offers a wide range of features for working with text corpora, including keyword analysis, concordance, and frequency analysis<sup>[40]</sup>. These three features were used in the present study to locate, contextualise, and quantify linguistic features that express stances in the corpus.

### 3.2.2. Analysis Criteria

The study adopted a part of the lexico-grammatical framework for stance, as suggested by Biber et al.<sup>[5]</sup>. The framework defines specific linguistic features that writers and speakers typically use to express their stance towards propositions. These features include grammatical elements such as modal verbs, adverbs, and complement clause structures, as well as value-laden words (i.e., adjectives, nouns, and verbs). As research studies rarely investigate adjectives, the current study limited its analysis to examining their use, allowing for a more focused analysis of stance that aims to classify the types of adjectives used and the nature of this use, while also contextualising such use.

The analysis criteria also considered the adjectives used to mark stance. The elected investigated adjectives were filtered into two stages. First, a word list of all the adjectives used in the corpus was generated to give an insight into the general use of adjectives in the corpus. A wordlist is “an ideal starting point for the understanding of a text in terms of its lexis”<sup>[41]</sup>. Subsequently, a qualitative analysis was conducted to select the most likely adjectives that represent the stance from the wordlist (*hereafter referred to as ‘stance adjectives’*). The selection was based on the semantic connotation of the adjectives and their relevance to the research variables. In this sense, the research employed a corpus-based analysis, where the selected stance adjectives were informed by the general adjective word list extracted from the corpus, rather than being predetermined, thereby increasing the likelihood of obtaining more pertinent results.

The selection of stance adjectives was also based on a quantitative criterion, which is the frequency cut-off of the adjectives. The frequency cut-off is used to determine

the keywords in the corpus according to their frequency of occurrence. It is typically set at an average of around 40 occurrences per one million words<sup>[42]</sup>, but some researchers reduce it to only 20 times per one million. Keywords, especially lexical items, are also defined as “any word that is considered ‘focal’ in a text, but not through statistical measures”<sup>[43]</sup>. Considering the size of the corpus and the need to expand the analysis to incorporate a broad spectrum of adjectives, this study adopted a frequency cut-off of 10 hits in the corpus. Accordingly, any adjective that was proved qualitatively relevant to the research topic and occurred more than 10 times was analysed.

Ultimately, the chosen keywords (adjectives) were utilised to create Keyword In Context (KWIC) lines which generated statistics related to the adjectives and facilitated the qualitative analysis.

### 3.2.3. Qualitative Analysis

The KWIC lines generated by the #LancsBox software were copied into an Excel workbook for qualitative analysis. The lines were manually analysed to identify the adjectives and how they are used in the tweets to express the stances of the tweeters. In some cases where the lines were short, the researcher referred to the original tweet to have a broader context that could explain the intended meaning of the tweet. This analysis complements the sociocultural factors of Saudi Arabia, which can help contextualise the tweets more effectively.

## 4. Findings

Overall, it was found that the use of adjectives in the SAWT corpus was as reported in **Table 2**.

**Table 2.** The overall use of adjectives.

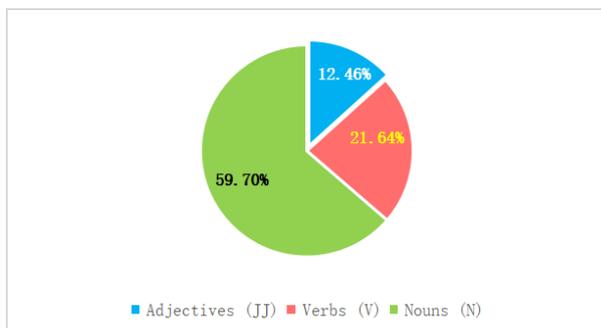
Measure	Value	Total Corpus	Percentage
Frequency per. type	185	9,246	2%
Frequency per. token	8,461	110,532	7.66%
Dispersion	3,923	5,265	74.51%
Type/Token ratio	0.02	0.08	-

The general use of the adjectives suggests that the SAWT corpus incorporates a significant use of descriptive language. This realisation is reflected in both the frequency and distribution of the adjectives within the corpus, as around

8% of the entire corpus consists of adjectives, while they are used in approximately 75% of the corpus. However, the Type-Token Ratio (TTR) of 0.02, which indicates that, on average, each adjective in the SAWT corpus is repeated around

0.02 times, suggests that there is a relatively high repetition of specific adjectives in the text, indicating a lower diversity of adjectives being used.

Compared to other value-laden words in the corpus, it is found that adjective use was demonstrated in **Figure 3**.



**Figure 3.** Use of lexical items in the SAWT corpus.

The use of lexical items in the SAWT corpus revealed that nouns are the most common word class, followed by

verbs and then adjectives. These statistics considered all types of adjectives; however, the qualitative analysis revealed that most adjectives are irrelevant to expressing stance.

To analyse the use of relevant adjectives in relation to social reforms and the stance expressed thereby, the researcher filtered the word list to generate a keyword list based on the qualitative and quantitative criteria mentioned. Ultimately, 29 adjectives were analysed in the light of the qualitative and quantitative analysis.

According to Biber et al.'s<sup>[5]</sup> framework, adjectives were classified as either attitudinal (emotional) or evaluative.

### 4.1. Attitudinal/Emotional Adjectives

Regarding the attitudinal adjectives, it was concluded that five adjectives expressing stances related to the reforms are used. **Table 3** presents the statistics of these adjectives.

**Table 3.** Most frequent attitudinal adjectives in the SAWT corpus.

Adjective	Frequency	Rel. Freq	Range	Range %
Proud	143	1.29	136	2.58
Happy	136	1.23	128	2.43%
Glad	15	0.14	15	0.28 %
Passionate	13	0.12	13	0.25%
Afraid	10	0.09	10	0.19%

The statistics revealed that emotional adjectives are rarely used in the corpus. It is also noted that only two adjectives were significantly used in the corpus: *proud* and *happy*. Both of these adjectives were used approximately once per thousand tokens and are found in 3% of the corpus files. However, there is a significant difference in the number of occurrences of the other adjectives, which were rarely used in the corpus (around 0.1 times per 1k tokens).

### 4.2. Evaluative Adjectives

Overall, 24 evaluative adjectives were identified as frequently used in the corpus to express the tweeters' stances toward the reforms, the achievements made, and what women think of themselves and their counterparts concerning the

changes. **Table 4** presents the statistics of the most frequent evaluative adjectives that express stance.

It is noted that evaluative adjectives occurred more recurrently than attitudinal/emotional ones. The combined frequency of the top two evaluative adjectives is higher than the combined frequency of all the most commonly used emotional adjectives. Additionally, the range of the evaluative adjectives is wider in the corpus, indicating that more tweeters use evaluative adjectives to express their stance on reforms and related topics. The adjectives *good*, *strong*, and *incredible* were found to be the most frequent evaluative adjectives in the corpus to express stance. Each of them was used by around 4% of the tweeters. However, other evaluative adjectives were found to occur in a narrower range between 0.3 and 2 per cent of the corpus files.

**Table 4.** Most frequent evaluative adjectives in the corpus.

Adjective	Frequency	Rel. Freq.	Range	Range %
Good	255	2.31	248	4.71%
Strong	243	2.20	228	4.33%
Incredible	227	2.05	224	4.25%
Great	136	1.23	128	2.43%
Beautiful	92	0.83	90	1.71%
Equal	74	0.67	71	1.35%
Powerful	70	0.63	69	1.31%
Social	63	0.57	59	1.12%
Important	57	0.52	54	1.03%
Economic	51	0.46	49	0.93%
Hard	44	0.40	44	0.84%
Historic	44	0.40	44	0.84%
Positive	41	0.37	41	0.78%
Historical	38	0.34	38	0.72%
Remarkable	38	0.34	38	0.72%
Human	37	0.33	35	0.66%
Able	32	0.29	32	0.61%
Cultural	27	0.24	20	0.53%
Fearless	20	0.18	20	0.38%
Significant	15	0.14	15	0.28%
Ongoing	15	0.14	15	0.28%
Live	15	0.14	15	0.28%
Critical	14	0.13	14	0.27%
Unstoppable	14	0.13	14	0.27%

## 5. Discussion

The study’s findings indicated that adjectives are used more frequently in the SAWT corpus than the other two lexical word classes. Adjectives were observed as common in all registers but less common than nouns and adverbs<sup>[5]</sup>. In the SAWT, they account for approximately 2% of the corpus as unique types<sup>[5]</sup>. However, their instances (tokens) amount to 7.66%, falling within a normal range as this usage aligns with Biber et al.’s<sup>[5]</sup> observation and previous research, such as Shih et al.<sup>[44]</sup>, who found that adjectives represent around 8 % of the BNC corpus while they account for 7% in their compiled learner corpus.

The low TTR of the adjectives, which was (0.02), suggests tweeters use a limited set of adjectives, likely due to the narrow topics they discuss and possibly influenced by expressing themselves in L2 English. In short, Saudi women use adjectives appropriately, consistent with previous corpus linguistic studies, to convey their opinions, but with very low lexical diversity.

Regarding the use of relevant adjectives to stance in terms of types as standardised by Biber et al.<sup>[5]</sup>, the study found that tweeters abundantly use evaluative adjectives to

express their stance towards the reforms compared to emotional/attitudinal adjectives. These results demonstrate one of two implications. (1) Saudi women adopt more objective stances when they express their stances towards the reforms, or (2) when it comes to expressing their emotions, adjectives are not the preferred linguistic choice for them.

The use of emotional adjectives was restricted to expressing attitudes towards their country that grants them their right, as in “I am so so *proud* of Saudi Arabia and that I get to witness this day come” (SAWT9). The pride of identity is not confined to patriotism or the country, but it is also of gender, as in “I’m so *proud* to be a Saudi woman, and I’m so *proud* of every woman who spoke out and helped make this a reality” (SAWT1544).

The use of the adjective proud indicates a common type of stance expression, which is identity construction. Using this adjective, the tweeters emphasise their affiliation with the community and show their positive feeling towards the situation. This finding is the first remark on how adjectives can serve as a powerful tool to express a stance. Also, the stance here represents both the personal pride of the tweeters themselves and of their counterparts, i.e., other women and girls. Here, as Du Bois stated, the tweeters both expressed

their feelings and aligned themselves with other subjects and events, taking pride in the changes, their countries, their leaders, and their achievements. Other adjectives, such as the adjective *happy*, express the same feelings.

The use of the adjective *happy* is mostly related to expressing tweeters' emotions towards the changes: "Seeing all the pictures and videos of Saudi women finally being able to drive makes me so *happy*" (SAWT3333). Also, other emotional adjectives include tweeters' feelings towards the reforms, as in "I feel *passionate* about the women's empowerment" (SAWT3857) or comparing their status before the reforms to what they feel now: "I was once *afraid* of people saying Who does she think she is Now I have the courage to stand and say This is who I am" (SAWT1444).

The sociocultural reality of Saudi Arabia justifies these stances, which can be considered logical consequences of long years of waiting for women's rights and equality with men. What might be strange, however, is that it might be envisaged that the achievement of the long-awaited requirements should evoke strong emotional reactions that clear stance markers can express; this was not the case, however, as Saudi women preferred, as it seemed, to express their stance in a more objective style using evaluative adjectives.

Although there is a significant difference in the number and frequency of evaluative adjectives used compared to attitudinal ones, the use of evaluative adjectives to express the tweeters' stance towards the reforms was found to be similar to the use of attitudinal or emotional adjectives in terms of quality. It is noted that almost all the evaluative adjectives used are positive or presented in a laudatory style, expressing admiration or approval. Although this was anticipated, as the research participants are women who addressed changes related to their specific needs and rights, it was expected that some hesitant stances might emerge due to the nature of Saudi society and its deeply rooted traditions. However, no derogatory adjectives were spotted above the set cut-off for value-laden words.

The evaluative adjectives to describe the women's stance toward the reforms can be divided into two major categories. The first type incorporates laudatory adjectives that reflect the tweeters' positive stance toward the changes. The second type includes objective adjectives that describe the tweeters' judgement of the reforms more neutrally, likely to express the value of the changes.

Although the laudatory adjectives were classified as evaluative, they nevertheless carry emotional connotations as they reflect positive feelings towards the reforms. For example, the adjective *good* is used in a wide range of contexts in the corpus to express the tweeters' stances towards the reforms in general, as in "Recent reforms will be *good* not just for the national economy but also to change cultural, social perceptions of the country" (SAWT624). In other cases, the adjective is used to describe specific aspects of the reform, such as women driving as in SAWT16, which reads "*good* for the ladies who are now allowed to drive, *good* for the men who now don't have to take them everywhere also *good* for the car dealerships who will no doubt be extremely busy with new clients."

Similarly, the word "*great*" is used approximately once per thousand tokens to express tweeters' stances of praise or admiration regarding the change. One tweeter expressed that by tweeting, "*Great* step by Saudi Government, Thank MBS" (SAWT4694). Other tweeters describe the changes as "really *great* action" (SAWT2338) caused by "*great* vision" (SAWT1989) launched by "a *great* leader" (SAWT1345).

Laudatory adjectives were also used to describe Saudi women in the context of the reforms. The tweeters frequently link the reforms to Saudi women, probably because they believe that the transformations are realised as a result of their dedication and continuous strife in the past years. Consequently, they consider them to be their achievement, which reflects their dedication.

To reflect these stances, the sample tweeters frequently describe themselves and their peers as *strong*, *fearless*, *powerful*, and *unstoppable*. Examples of tweets that incorporate such adjectives are (SAWT4520), which states, "Salute to all our *strong* and *fearless* lionesses," and (SAWT2744), which reads, "I'm so excited to see women of my country drive, we deserve this opportunity. We Are The *strongest*."

As was the case with the attitudinal adjectives, specifically the use of the adjective *proud*, using laudatory adjectives to describe women in the context of the reform is used to construct the Saudi woman's identity. By using such types of adjectives, the tweeters attempted to align themselves with specific adjectives that indicate their belonging to the community and the situation being addressed. Evaluative adjectives of this kind, i.e. laudatory adjectives, seem to be a unique feature of the adjectives in the social media regis-

ter. In other words, these types of adjectives were not dealt with by Biber et al.<sup>[5]</sup> or their colleagues in different versions of the lexico-grammatical framework that dealt with academic discourse. This omission is apparently because most of the framework's applications were on the academic register, which entails more objective, neutral, and epistemic stances that provide no room for praising or admiring the topic included. Accordingly, laudatory adjective stance markers can be suggested as a category of evaluative adjectives that mark social media discourse.

In the SAWT corpus, objective adjective stance markers consist of a set of adjectives that indicate how tweeters assess and evaluate the reforms. These adjectives can either describe the significance or importance of the reforms or provide factual information about the changes that have occurred. For example, the tweeters use the adjectives *important*, *significant* and *critical* to describe the reforms as in “However much more *important* are the reforms to guardianship laws increased legal rights for women” (SAWT124); achievement for Women’s human rights” (SAWT1672); and “This push for workforce representation and women’s empowerment in general is seen as *critical* to the Kingdom’s modernisation as part of its Vision 2030 diversification plan Arabia” (SAWT1222).

Other objective adjectives are topical adjectives that reveal the actual value of the changes to emphasise the importance of the reforms and highlight their value. These adjectives include words such as *social*, *financial*, *economic*, *ongoing*, and *human*, among others. For example, in (SAWT3855), a rhetorical portrayal of the reforms is presented: “Saudi women are pushing the *social* frontiers right now; they are a true inspiration”.

Other tweets give more explanation, such as “I stand with freedom of speech for *social* change” (SAWT177); “Crown Prince Mohammed bin Salman marks the dawn of a new era of *economic* and *social* opportunity in Saudi Arabia, in line with SaudiVision2030” (SAWT1198). Alternatively, directly showing the effect and results of such reforms, as in “Recent reforms will be good not just for [the] national economy but also to change *cultural* [and] *social* perceptions of the country” (SAWT624). Topical objective adjectives are also used to describe the present situation of the reforms, such as *ongoing* in (SAWT2448), which reads, “[t]his is the dawn of a golden age for Saudi women thanks to the *ongoing*

*social* reforms.”

The study’s results on adjectives offer insights in line with previous literature. For example, the remarkable difference in frequency between attitudinal and evaluative adjectives supports what was suggested previously by Biber and Zhang<sup>[21]</sup>, who called for using (grammatical stance) and (lexical evaluation) based on the assumption that in the internet register, grammatical items are used to express stance and attitudes while lexical items (value-laden) words are used to express evaluation and judgement.

The findings are also in line with Du Bois’s stance triangle, which determines evaluation as a basic function of the stance that can be clarified by a stance-taker as “I evaluate something, and thereby align myself, and thereby align with you”<sup>[12]</sup>. In such an explanation, stance is defined as an evaluation of an entity or an event, followed by the speaker’s position towards it based on this evaluation, and ultimately aligning themselves with the audience. What is missing and can be elaborated on is the type of markers that describe the objects, whether they are praising and or admiring the situation addressed or describing it in an objective, neutral way.

One significant limitation of this study is that when analysing tweets from Saudi women discussing social reforms in English, a language that is not their native language, there may be variations in their English proficiency levels. This limitation could result in subtle nuances in their expressions being overlooked or misunderstood. Additionally, the cultural context inherent in their native language may not be conveyed entirely when articulating stances and emotions in English. This limitation emphasises the challenges of analysing tweets from Saudi women discussing social reforms in a language foreign to them and highlights the significance of comparing the results with those obtained from Arabic tweets on the same topic before making broad generalisations.

## 6. Conclusions

This study aimed to investigate the use component of the lexico-grammatical framework for stance by Biber et al.<sup>[5]</sup>, specifically adjectives. It adopted the CADS approach to analyse a corpus of 110,532 tokens. The key findings of the study indicate that Saudi women employed evaluative adjectives more frequently than attitudinal and emotional

ones. It also reveals that evaluative adjectives serve many purposes, mainly to praise the changes, express the tweeters' admiration, and construct their identity. Additionally, a variety of evaluative adjectives were used to emphasise the importance or significance of the reforms or to provide factual details about the changes.

The study has implications for researchers and policy-makers. The major implication for researchers is that adapting the Biber lexico-grammatical framework for analysing social media content opens up new avenues for research in the field of linguistic analysis and social media discourse using the CADS approach. Accordingly, the researcher recommends conducting further studies that utilise Biber's framework or parts of it to analyse stances in social media, considering its specific features as being more personal and informal. Further, the linguistic features of the discourse and the users should also be taken into consideration.

Another implication arises from using English as a second language, which may influence how Saudi women express their stance on social reforms, possibly limiting the range of their evaluations. This emphasises the importance of considering linguistic and cultural transfer when analysing stance in L2 contexts. Future research should compare English-language tweets with those written in Arabic to better understand how language choice affects stance expression and to achieve more comprehensive and culturally sensitive interpretations.

As far as policymakers are concerned, the overwhelmingly positive reception of social reforms by Saudi women suggests that these reforms have been well-received and are contributing to positive social change. These findings may necessitate promoting such changes and considering their expansion to address areas where reforms are needed.

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## Institutional Review Board Statement

The process of compiling the corpus was approved by the Humanities and Social Sciences Ethical Review Committee at the University of Birmingham under the number

ERN\_21-1588.

## Informed Consent Statement

Not applicable.

## Data Availability Statement

The data associated with this study, including the corpus, codes, and scripts, are available on Figshare at the link: <https://figshare.com/account/articles/29302262>.

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## Conflicts of Interest

There are no conflicts of interest associated with the development or publication of the SAWT corpus.

## References

- [1] Abid, R., Jassim, M., 2021. Stance-taking in Hillary Clinton's political speeches: a critical discourse study. *Journal of Basra Research for Human Sciences*. 46(3), 32–52.
- [2] Biber, D., 2006. Stance in spoken and written university registers. *Journal of English for Academic Purposes*. 5(2), 97–166. DOI: <https://doi.org/10.1016/j.jeap.2006.05.001>
- [3] Englebretson, R., 2007. *Stancetaking in Discourse*. John Benjamins Publishing Company: Amsterdam: Netherlands.
- [4] Alghazo, S., Al Salem, M., Alrashdan, I., et al., 2021. Grammatical devices of stance in written academic English. *Heliyon*. 7(11), 1–8. DOI: <https://doi.org/10.1016/j.heliyon.2021.e08463>
- [5] Biber, D., Johansson, S., Leech, G., et al., 1999. *Longman Grammar of Spoken and Written English*. Pearson Education Limited: Harlow, England.
- [6] Biber, D., Finegan, E., 1989. Styles of stance in English: lexical and grammatical marking of evidentiality and affect. *Text - Interdisciplinary Journal for the Study*

- of Discourse. 9, 93–124. DOI: <https://doi.org/10.1515/text.1.1989.9.1.93>
- [7] Halliday, M.A.K., Matthiessen, C.M.I.M., 2004. *An Introduction to Functional Grammar*, 3rd ed. Edward Arnold: London, UK.
- [8] Trinh, T., 2021. Analysis of interpersonal metafunction in text messages: a case study of group text messages among teachers of English at Viet Anh School. *Thu Dau Mot University Journal of Science*. 3(3), 365–385. DOI: <https://doi.org/10.37550/tdmu.EJS/2021.03.215>
- [9] Hyland, K., 2005. Stance and engagement: a model of interaction in academic discourse. *Discourse Studies*. 7(2), 173–192. DOI: <https://doi.org/10.1177/1461445605050365>
- [10] Aull, L., 2019. Linguistic markers of stance and genre in upper-level student writing. *Written Communication*. 36(2), 267–295. DOI: <https://doi.org/10.1177/0741088318819472>
- [11] Jiang, F.K., Hyland, K., 2015. ‘The fact that’: stance nouns in disciplinary writing. *Discourse Studies*. 17(5), 529–550. DOI: <https://doi.org/10.1177/1461445615590719>
- [12] Du Bois, J., 2007. The Stance Triangle. In: Englebretson, R. (ed.). *Stancetaking in Discourse: Subjectivity, Evaluation, Interaction*. John Benjamins Publishing Company: Amsterdam; Netherlands. pp. 139–182
- [13] Kiesling, S.F., 2022. Stance and stancetaking. *Annual Review of Linguistics*. 8, 409–426. DOI: <https://doi.org/10.1146/annurev-linguistics-031120-121256>
- [14] Kaltenböck, G., López-Couso, M., Méndez-Naya, B., 2020. The dynamics of stance constructions. *Language Sciences*. 82, 1–12. DOI: <https://doi.org/10.1016/j.lansci.2020.101330>
- [15] Kiesling, S.F., 2011. Stance in context: Affect, alignment and investment in the analysis of stancetaking. In *Proceedings of The Interaction and Meaning Conference*, Bristol, UK, 15 April 2011; pp. 1–12.
- [16] Sakita, T., 2013. Discourse markers Well in stance alignment in conversational interaction. *Pragmatics and Cognition*. 21(1), 81–116. DOI: <https://doi.org/10.1075/pc.21.1.04sak>
- [17] Karkkainen, E., 2006. Stance taking in conversation: from subjectivity to intersubjectivity. *Text and Talk*. 26(6), 699–731. DOI: <https://doi.org/10.1515/TEXT.2006.029>
- [18] Chindamo, M., Allwood, J., Ahlsén, E., 2012. Some suggestions for the study of stance in communication. In *Proceedings of The 2012 International Conference on Privacy, Security, Risk and Trust*, Amsterdam, Netherlands, 3–5 September 2012; pp. 617–622.
- [19] Gray, B., Biber, D., 2012. Current Conceptions of Stance. In: Hyland, K., Guinda, C. (eds.). *Stance and Voice in Written Academic Genres*. Palgrave Macmillan: Basingstoke, UK. pp. 15–33. DOI: [https://doi.org/10.1057/9781137030825\\_2](https://doi.org/10.1057/9781137030825_2)
- [20] Kozáčíková, Z., 2021. Stance complement clauses controlled by verbs in academic research papers. *Topics in Linguistics*. 22(1), 16–26. DOI: <https://doi.org/10.2478/topling-2021-0002>
- [21] Biber, D., Zhang, M., 2018. Expressing evaluation without grammatical stance: informational persuasion on the web. *Corpora*. 13(1), 97–123. DOI: <https://doi.org/10.3366/cor.2018.0137>
- [22] Chandrasegaran, A., Kong, K., 2006. Stance-taking and stance-support in students. *Linguistics and Education*. 17, 374–390. DOI: <https://doi.org/10.1016/j.linged.2007.01.003>
- [23] Kucher, K., Schamp-Bjerede, T., Kerren, A., et al., 2016. Visual analysis of online social media to open up the investigation of stance phenomena. *Information Visualisation*. 15(1), 93–116. DOI: <https://doi.org/10.1177/1473871615575079>
- [24] Al Derham, R.A., 2023. Political Power and Material Identity: Saudi Women in Real and Virtual Societies. In: Rahman, M.M., Al-Azm, A. (eds.). *Social Change in the Gulf Region: Multidisciplinary Perspectives*. Springer: Singapore. pp. 619–632. DOI: [https://doi.org/10.1007/978-981-19-7796-1\\_36](https://doi.org/10.1007/978-981-19-7796-1_36)
- [25] Eum, I., 2019. “New women for a new Saudi Arabia?” Gendered analysis of Saudi Vision 2030 and women’s reform policies. *Asian Women*. 35(3), 115–133. DOI: <https://doi.org/10.14431/aw.2019.09.35.3.115>
- [26] Al-Arabiya English, 2025, Mohammed bin Salman on Saudi women’s rights and the guardianship laws. Available from: Mohammed bin Salman on Saudi women’s rights and the guardianship laws (cited 27 July 2025).
- [27] Jabbour, R., 2017, April 24. Saudisation: An invented nationalism. Middle East Institute for Research & Strategic Studies. Available from: <https://www.meirss.org/saudisation-an-invented-nationalism/> (cited 19 February 2022).
- [28] Bassi, M.M.M., 2021. Enhancing the role of Saudi women in community development in light of the Kingdom’s 2030 Vision. *Journal of Arts, Literature, Humanities and Social Sciences*. (66), 426–441.
- [29] Khalil, A., Storie, L.K., 2021. Social media and connective action: the case of the Saudi women’s movement for the right to drive. *New Media & Society*. 23(10), 3038–3061. DOI: <https://doi.org/10.1177/1461444820943849>
- [30] Rizvi, L.J., Hussain, Z., 2022. Empowering woman through legal reforms – evidence from Saudi Arabian context. *International Journal of Law and Management*. 64(2), 137–149. DOI: <https://doi.org/10.1108/IJLM-A-03-2021-0068>
- [31] Baker, P., 2010. *Sociolinguistics and Corpus Linguistics*. Edinburgh University Press: Edinburgh, UK.
- [32] McEnery, T., Hardie, A., 2011. *Corpus Linguistics: Method, Theory and Practice*. Cambridge University Press: Cambridge, UK.

- [33] Sinclair, J., 1991. *Corpus, Concordance, Collocation*. Oxford University Press: Oxford, UK.
- [34] Abdellah, A.S., 2002. What every novice translator should know. *Translation Journal*. 6(3), 1–11.
- [35] Baker, M., 2018. *Translation and Conflict: A Narrative Account*. Routledge: London, UK.
- [36] Parveen, M., 2021. Women empowerment: new paradigm shift of Saudi women into labour workforce. *Society and Business Review*. 17(1), 66–91. DOI: <https://doi.org/10.1108/SBR-10-2020-0123>
- [37] Brezina, V., 2018. *Statistics in Corpus Linguistics: A Practical Guide*. Cambridge University Press: Cambridge, UK.
- [38] Oakes, M.P., 1998. *Statistics for Corpus Linguistics*. Edinburgh University Press: Edinburgh, UK.
- [39] Wallis, S., 2022. *Statistics in Corpus Linguistics: A New Approach*. Cambridge University Press: Cambridge, UK.
- [40] Brezina, V., Weill-Tessier, P., McEnery, A., 2021. #LancsBox v. 5.x [software]. Available from: <http://corpora.lancs.ac.uk/lancsbox> (cited 3 May 2023).
- [41] Scott, M., Tribble, C., 2006. *Textual Patterns: Key Words and Corpus Analysis in Language Education*. John Benjamins Publishing: Amsterdam, Netherlands.
- [42] Biber, D., Barbieri, F., 2007. Lexical bundles in university spoken and written registers. *English for Specific Purposes*. 26(3), 263–286. DOI: <https://doi.org/10.1016/j.esp.2006.08.003>
- [43] Baker, P., Hardie, A., McEnery, T., 2018. *A Glossary of Corpus Linguistics*. Edinburgh University Press: Edinburgh, UK.
- [44] Shih, R., Chiang, J., Tien, F., 2000. Part-of-speech sequences and distribution in a learner corpus of English. In *Proceedings of The Research on Computational Linguistics Conference XIII (ROCLING XIII)*, Taipei, Taiwan, 24–25 August 2000; pp. 171–177.