Multinational Messaging: Examining Language Variation and Hofstede's Power Distance in Posts on X

Bachelor's Thesis

Famke Wouters
S1099607
famke.wouters@ru.nl

Radboud University
International Business Communication
Supervisor: Dr. Sandy Barasa
3 June 2025

Abstract

As business is becoming more digital, brands are now dependent on social platforms to promote the advertised goods or services. However, business is becoming more international due to globalization as well. Therefore, it is crucial for businesses to understand their audiences and how to effectively communicate with different cultures. This communication depends on different cultural values described by Hofstede (2011), including the dimension Power Distance. This study aimed to investigate how Power Distance influences the social media presence of Mercedes-Benz USA and Mercedes-Benz India and how this presence affects the brand's engagement. A corpus analysis examined posts by both accounts on X in the year 2024. Findings showed that posts by both accounts showed a similar style in terms of linguistic elements. Additionally, Power Distance was not portrayed explicitly in posts. However, USA received significantly more engagement than India. Results suggest that businesses are choosing a more international standardized messaging style in order to remain globally competitive.

Keywords: *Power Distance, Self-presentation, Cultural Adaptation, Automobile Industry, Brand Engagement, Platform X*

Table of Contents

Introduction

The current digital world has shifted the way companies communicate with consumers, which now occurs on dynamic platforms (Jeswani, 2023). Messaging can be transmitted in real-time and companies may improve brand visibility, as a singular post can now reach a more global audience.

A brand is a permanent mark, such as logos, slogans, or catchphrases (Hussain, 2019), and connects different parties including suppliers, producers, and the consumers (Kornberger, 2010). According to Jeswani (2023), elements of brand engagement include storytelling, visually appealing content, and the strategic use of multimedia such as social media. The use of these elements allows consumers to engage with the brand (Wang, 2008).

Social media is defined as a group of Internet-based applications building on Web 2.0, allowing the creation and exchange of User Generated Content (Kaplan & Haenlein, 2010). User Generated Content (UGC) is defined as the different ways social media are used by people, such as interacting with brands (Kaplan & Haenlein, 2010).

A key element of social media is self-presentation, which refers to people's desire to control the impressions formed by others (Naegele & Goffman, 1956). Companies may present themselves in certain ways on social media to strategically shape their image (Kaplan & Haenlein, 2010). This leads to the creation of brand communities, which connects admirers of a brand (Jeswani, 2023; Muniz & O'Guinn, 2001) and strengthens the brand reputation. Therefore, having a consistent self-presentation on social media and interacting with brand communities may help a company's image and success.

According Jeswani (2023), social media is crucial for businesses, as it creates more brand visibility and allows real-life engagement with consumers. The creation of online brand communities as a result of social media leads to brand loyalty, community members share satisfactory feelings and boost each other (Jeswani, 2023). Lastly, social media enables companies to address situations and maintain their image during a company crisis. This is an example of how social media can shape public opinions (Jeswani, 2023). Overall, social media can be seen as a tool to improve brand reputation and create competitive advantages.

However, tailoring to a specific audience may be difficult for companies with

consumers from different countries and cultures, such as multinational companies. A multinational company operates in multiple other countries (Dunning & Lundan, 2008; Mayrhofer & Prange, 2015) and must adapt to different cultures and communication styles. As local preferences may be linked to culture, companies can use localization strategies to fulfill these preferences (Harini, 2024). Multinational companies are a result of the market globalization, operations are now affecting more countries (Sahem, 2023). Therefore, solving cross-cultural issues has become more crucial for companies operating in multiple countries.

The cultural values of countries can be explained based on Hofstede's (2011) cultural dimensions, which propose that every country can be categorized based on these dimensions. Every country receives a score on each dimension and scores are relative to other countries. The dimension Power Distance focuses on how less powerful members accept inequality. The dimension Uncertainty Avoidance focuses on the level of stress caused by the unknown future. The dimension Individualism versus Collectivism focuses on the view of individuals in contrast to the emphasis on collective groups. The dimension Masculinity versus Femininity focuses on the division of emotional roles between women and men.

Initially, Hofstede only examined these four dimensions as they were seen as the four main cultural problems (Hofstede et al., 2010). A fifth and sixth dimension were introduced later. The dimension Long Term versus Short Term Orientation relates to whether people prioritize the future or the present and past. The last dimension Indulgence versus Restraint focuses on the control of basic human desires related to enjoying life. Scores on dimensions are based on correlation, meaning that scores on certain dimensions will most likely lead to specific scores on another dimension (Hofstede et al., 2010).

Power Distance scores are derived from answers regarding expressing disagreement with their boss and perceptions of their boss' decision-making style (Hofstede et al., 2010). Scores on the Power Distance Index (PDI) range from 11 (Austria) to 104 (Malaysia) and allow for indications about the dependence relationships in that country. Indications reflect how people from that culture communicate. High Power Distance countries often prefer more formal and hierarchical communication, while a low Power Distance country will prefer more direct and open communication (Lin & Lou, 2024). Countries with a low PDI score and more egalitarian structures are also more likely to integrate feedback from others. This may be done by posing questions in order to create independent thoughts (Lin & Lou, 2024).

According to Hofstede (1980, 1983), there is a large correlation between Power Distance and Collectivism. Therefore, it can be expected that these are expressed in similar ways. Individualism is often reflected in the use of singular first-person pronouns ('I', 'me'). Following Hofstede's (1980, 1983) theory, this could be in line with low PDI scores. On the contrast, high PDI is in line with Collectivistic values, which tend to use plural first-person pronouns ('we', 'us') more often. According to Amirkhiz et al. (2014), second-person pronouns (SPP) can be used to be authorative and directive (high PDI) but may also be used in a collaborative way (low PDI). Therefore, the use of SPP does not always lead to conclusions about cultural values. Studies regarding the effect of third-person pronouns (TPP) on Power Distance remain minimal. However, using TPP could lead to social distance and eventually hierarchies, which signal a high PDI score (Stawarska, 2010).

Unfortunately, studies regarding cultural differences in terms of linguistic style (length and structure of sentences) remain scarce. However, Hofstede has stated that scores on another dimension may influence scores on Power Distance. While USA and India score differently on PDI, both scored relatively low on Hofstede's Uncertainty Avoidance (45 and 40). This indicates that the cultures allow for freedom of thought, as well as a rather flexible style of communication (István, 2014; Hofstede et al., 2010). Based on this finding, high PDI and low PDI cultures are not expected to differ regarding length and structure of sentences.

Power Distance may also have a large effect on business communication and how consumers engage with brands and products. According to Lee et al. (2020) and Crespo-Almendros et al. (2023), low Power Distance cultures are more sensitive to price and are therefore more likely to take action and explore the sales promotions. For these cultures, businesses could make use of hashtags and calls-to-action in posts. In contrast, high Power Distance cultures will prefer passive sales promotions that do not require any actions. Users from these cultures are less likely to engage with active promotions.

Cultural differences are reflected in content of the message as well. A study by Kim and Zhang (2014) tested consumer's attitudes towards status brands in a survey. Findings showed that consumers from high PDI cultures showed a more favorable attitude toward status brands than consumers from low PDI cultures. Additionally, the study discovered a significant correlation between PDI score and attitude towards status brands. Therefore, accounts with a

high PDI score are more likely to post content focused on luxury to affirm the current hierarchy than low PDI cultures.

While Hofstede's (2011) theory allows for examination of response styles, the model also has some limitations. Signorini et al. (2009) believe that Hofstede is oversimplifying the complexity of cultures. Hofstede describes culture as something consisting of multiple separate layers, while Spencer-Oatey (2004) believes that culture has overlapping layers. Additionally, the onion metaphor described by Hofstede suggests that culture is unchanging. According to Spencer-Oatey (2004) and Signorini et al. (2009), culture is rather dynamic meaning it is constantly changing and adapting to situations.

Alternative models have also attempted to explain cultural differences based on different dimensions. Hall (1976) has developed a model focusing on context, space, and time. High-context cultures rely on implicit mutual understanding and minimal explicit messaging. In contrast, Low-context cultures depend on explicit verbal messaging. Cultures displaying High-context characteristics are often affiliated with high Power Distance as well (Würtz, 2006). Spatial norms differ per culture and are divided over four zones to regulate social interaction: intimate distance, personal distance, social distance, and public distance. Lastly, time categorizes cultures as Polychronic and Monochronic. Polychronic cultures put more focus on relationships than strict schedules, interruptions are natural (Hall, 1983). In contrast, Monochronic cultures manage time more strictly and value efficiency of tasks.

Trompenaars' model investigates dimensions based on relationships with others, attitudes toward time, and attitudes toward the environment (Tocar, 2019; Trompenaars & Hampden-Turner, 1997). Dimensions include Universalism vs Particularism, Individualism vs Communitarianism, Achievement vs Ascription, Sequential vs Synchronic, Neutral vs Affective, and Specific vs Diffuse.

According to Tocar (2019), Specific vs Diffuse may be seen as the dimension that is the most similar to Hofstede's Power Distance as both measure the degree of accepted inequal relationships in a country. Specific countries rather separate personal and professional connections and business is often more formal. In these countries, business is characterized by hierarchies in contrast to diffuse countries. This is in line with Winsted (1997), who observed that Hofstede's high Power Distance is linked to more formal customer service while low Power Distance cultures prefer informal service.

Similar to Hofstede (2011), Trompenaars investigates various aspects of culture. However, Trompenaars' model captures less instrumental and terminal values (Tocar, 2019). Therefore, it covers less aspects and is less comprehensive than Hofstede's model. Instead, Trompenaars' model can be seen as a useful addition to Hofstede's (2011) dimensions.

Application of these theories is particularly relevant for a multinational company like Mercedes-Benz. Its global presence has led to the challenge of finding a balance between maintaining a global image (Fetscherin & Toncar, 2010) and tailoring to local preferences (Harini, 2024). The international expansion of the automobile industry could result in the integration between employees from high Power Distance cultures and low Power Distance cultures. This integration may cause cultural blending, which could complicate distinct communication strategies and emphasizes the importance of Hofstede's (2011) model.

It can be concluded that much research has been conducted on cultural dimensions and particularly how these are applied to our daily lives. However, most of this research focuses on the dimensions as a collective rather than focusing on particular aspects. Therefore, research on the specific dimension Power Distance and its influence on the social media presence of multinational businesses remains limited. Additionally, there is still a gap to fill regarding comparative studies examining how Power Distance affects USA and India.

This study's aim is to fill the gap by examining how Mercedes-Benz can adapt its social media strategies to align with Hofstede's Power Distance and appeal to its different audiences. This will be achieved by comparing posts from a low Power Distance culture (Mercedes-Benz USA) and a high Power Distance culture (Mercedes-Benz India) on X. Based on this comparison, the study investigates how these different social media approaches influence consumer engagement and eventually brand reputation.

Based on the discussed literature and research gap, the study aims to answer the following research question:

RQ: How do multinational companies adapt their social media content based on cultural dimensions and language use?

Q1a. How does Mercedes-Benz USA differ from Mercedes-Benz India in the use of grammar and style in posts published on X?

Q1b. How does the cultural dimension Power Distance play a role in the communication style of posts published by Mercedes-Benz USA and Mercedes-Benz India on X?

The social media presentation of the company may also affect how and the extent to which consumers engage with the brand's posts on the platform. Therefore, answers to the research questions will also provide insides regarding the current brand engagement, which will eventually shape the brand's reputation.

The study will contribute to future research regarding social media strategies used by multinational companies. Findings of this study will give us new insights on how cultural dimensions may be applied to businesses and their different social media accounts. Companies may then adapt these insights and appeal to local customers. Consequently, this will optimize their social media presence and create a stronger brand reputation.

Method

Research Design

For this study, a corpus analysis was conducted. The analysis investigated the linguistic patterns as well as the use of Hofstede's (2011) cultural dimension Power Distance to understand how this combination influenced the image and reputation of a multinational company. For the study, focus was on the multinational company Mercedes-Benz USA and Mercedes-Benz India.

Materials

In this corpus analysis, social media posts published on the platform X were analyzed. More specifically, the study examined the captions of these posts. The dataset contained 48 posts published by the official accounts of Mercedes-Benz USA and Mercedes-Benz India on X. This dataset was equally divided over 24 posts published by Mercedes-Benz USA in 2024 and 24 posts published by Mercedes-Benz India in 2024. To ensure that the sample of posts was representative throughout the year, two posts from Mercedes-Benz USA and Mercedes-Benz India were selected for every month. One post was selected from week 1 and the other post from week 3 of each month for all 12 months.

Posts in the dataset had to meet specific criteria. Firstly, posts must have been published in 2024 on the official accounts of Mercedes-Benz USA and Mercedes-Benz India. Secondly, captions had to be between 10- and 45-words length to ensure variety in length while remaining a balance. Posts shorter than 10 words would have caused a lack of sufficient linguistic features for the analysis. Posts longer than 45 words would have contained too many different aspects or confusing messages making the analysis very complex. Thirdly, posts had to be related to business or marketing. Examples included customer care, the promotion of new products and updates, and engaging with local or cultural events. Examples of cultural posts included Mercedes-Benz India highlighting the celebration of Diwali or Mercedes-Benz USA posting about Independence Day.

Procedure

Content was studied through three different analyses focusing on linguistics, culture, and brand engagement.

The first analysis focused on linguistics and examined lexical choices, linguistic style, and tone. Lexical choices included the discussed topics and use of pronouns. Topics consisted of five options: luxury, performance, technology, brand heritage, and lifestyle. Based on content of the captions, each post was categorized as one of the topics. Every sentence was analyzed about the use of first-person pronouns (I, me, we, us), second-person pronouns (you), and third-person pronouns (he, she, they). These aspects were measured by frequency count, topics and pronouns that were used multiple times would most likely represent what that account aims to portray. Frequently used topics and pronouns were compared between Mercedes-Benz USA and Mercedes-Benz India.

Linguistic style was examined by analyzing the length and structure of sentences. Length measured the number of words as well as the number of sentences per caption. The average sentence length was calculated by dividing the total number of words in a post by the total number of sentences in that post. Based on this number, average sentence length was classified as short (1-6 words per sentence), medium (7-12 words per sentence), or long (13+ words per sentence). Sentence structure was examined by analyzing the type of sentences in the caption. All sentences were classified as simple, compound, complex, or compound-complex. Simple sentences consisted of one independent clause, while compound sentences consisted of two independent clauses. Complex sentences consisted of one independent clause and at least one dependent clause, compound-complex sentences combined compound and complex elements. Every sentence was categorized as one of these four classifications. Afterwards, the frequency of each category was counted and compared between Mercedes-Benz USA and Mercedes-Benz India.

Tone of the captions was examined by analyzing formality and engagement strategies. Formality was analyzed by identifying features of language demonstrating formality or informality. For example, ‘We are pleased to announce a new project’ was considered formal, while ‘Do not miss out on this new model’ was considered rather informal. Posts were classified as leaning toward formal or leaning toward informal. The last element of the linguistic analysis

was examining engagement strategies. Engagement could be achieved through calls-to-action, asking questions, and through the use of hashtags. Calls-to-action were analyzed by identifying the presence of imperative verb tenses e.g., 'Buy now!'. Questions and used hashtags were analyzed by examining the use of question marks and hashtag symbols in captions. All three factors were measured by conducting a quantitative analysis and frequency counts were compared between posts from Mercedes-Benz USA and Mercedes-Benz India.

The second analysis focused on how culture was reflected in posts. This analysis investigated how elements from the linguistic analysis were linked to Hofstede's cultural dimension Power Distance. Both accounts received scores, ranging from 1 to 5, in terms of how much posts reflected either high PDI scores or low PDI scores. A score of 1 meant that the post did not show any signs of either high PDI or low PDI, while a score of 5 reflected many signs of high PDI or low PDI. This dimension was reflected in multiple factors from the linguistic analysis, such as the formality of posts, the use of pronouns, and directness of the calls-to-action. Patterns in these elements may be linked to USA and India's national scores regarding Power Distance. As mentioned by Hofstede, high PDI scores are often linked to more formal communication. Low PDI scores are linked to more direct informal communication combined with posing questions. Findings from the linguistic analysis were compared to how USA and India score on Power Distance overall. Based on the comparisons, conclusions were made regarding how the Mercedes-Benz accounts adapt their communication strategies based on the country's cultural norms.

A third analysis focused on brand engagement as a result of the social media presence of Mercedes-Benz USA and Mercedes-Benz India. Posts were analyzed based on interaction and responsiveness from customers. This included the likes, replies, and reposts on a specific post. These factors were studied through quantitative metrics, specifically focusing on the frequency count. Additionally, sentiment of replies was studied through a qualitative analysis. Responsive expressions were classified as positive, negative, or neutral to portray the perception of customers. The combination of analyses created insights into the engagement of specific posts. Engagement was compared between Mercedes-Benz USA and Mercedes-Benz India to examine the impact of different social media strategies on perceptions of the brand.

Following these criteria for the different analyses, the social media posts were coded. Posts were divided over several researchers, who coded posts from both Mercedes-Benz USA

and Mercedes-Benz India. Each researcher was assigned to 24 posts by Mercedes-Benz USA and 24 posts by Mercedes-Benz India. After this first round of coding, posts were exchanged and a second coder received the same set of posts by Mercedes-Benz to code. The second coder focused on the subjective variables, including the tone of captions, low and high PDI scores, and sentiment of the replies. This process ensured that all 48 tweets were coded twice to maintain consistency. The double-coding avoided any biases or mistakes made by the first coder. When all codings were complete, intercoder reliability was tested to observe how similar the two codings per post were. This agreement between coders was assessed according to Cohen's Kappa. Reliability scores for tone of caption, low PDI scores, and sentiment of replies was acceptable (all $\kappa > .70$). For high PDI scores, Cohen's $\kappa = .61$ meaning it was not acceptable. In this case, the two coders discussed differences and came to a final coding together. No large differences occurred, meaning complete recodings were not necessary.

Statistical Analysis

Descriptive statistics and independent samples t-tests were used to examine the frequency of linguistic elements across the dataset. Chi-square tests examined the distribution of linguistic features among the accounts of Mercedes-Benz USA and Mercedes-Benz India. Additionally, the chi-squares tested whether there was a significant relationship between linguistic features and Hofstede's Power Distance dimension.

Results

The purpose of this study was to investigate how cultural values from USA and India influence the social media presence of Mercedes-Benz on X and how these cultural differences affect the brand's engagement.

The linguistic analysis presented findings regarding linguistic style, lexical choices, and tone. Together, these findings answered sub question 1a focusing on the linguistic differences between USA and India.

Linguistic style

An independent samples t-test on word count and sentence count with country of the account as between-subjects factor was conducted to compare the length of posts between Mercedes-Benz USA and Mercedes-Benz India. Word count for Mercedes-Benz USA and Mercedes-Benz India did not differ significantly (t (45.95) = 1.58, p = .12), 95% CI [-9.66, 1.16].

Sentence count for Mercedes-Benz USA and Mercedes-Benz India did not differ significantly either (t (42.34) = 0.58, p = .56), 95% CI [-0.41, 0.75]. Posts by Mercedes-Benz India and posts by Mercedes-Benz USA contained an equal number of words and sentences. Descriptives of the independent samples t-test (n, M, and SD) are presented in Table 1.

Table 1: *Word Count and Sentence Count in Posts by Mercedes-Benz USA and Mercedes-Benz India*

	Country	*n*	*M*	*SD*
Word Count	USA	24	17.4	9.2
	India	24	21.7	9.4
Sentence Count	USA	24	2.2	1.1
	India	24	2.0	0.8

A chi-square test showed a non-significant relation between country of the account and average sentence length (χ^2 (2) = 4.97, p = .08). This relation was moderate (Cramer's V = .32). Posts published by Mercedes-Benz USA did not contain longer sentences than posts published by Mercedes-Benz India. For both accounts, most sentences were classified as medium length, which was 7-12 words per sentence. Furthermore, short sentences contained 1-6 words and long sentences contained more than 13 words. Results of the chi-square (*n* and %) are presented in Table 2.

Table 2: *Average Sentence Length in Posts by Mercedes-Benz USA and Mercedes-Benz India*

	USA		India		Total
	n	%	*n*	%	*n* (%)
Short	9	18.8%	4	8.3%	13 (27.1%)
Medium	12	25.0%	11	22.9%	23 (47.9%)
Long	3	6.3%	9	18.8%	12 (25.1%)

A chi-square test showed a non-significant relation between country of the account and type of sentence in posts (χ^2 (4) = 4.93, p = .29). This relation was moderate (Cramer's V = .32). Posts published by Mercedes-Benz USA did not contain different sentence types from posts published by Mercedes-Benz India. Results of the chi-square (*n* and %) are presented in Table 3.

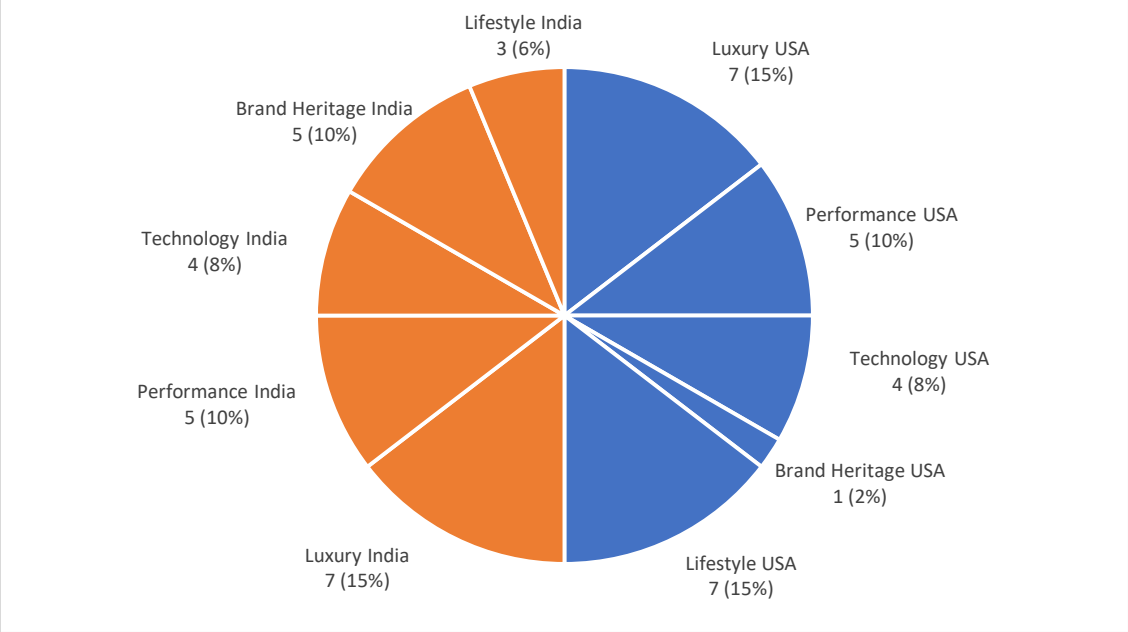
Table 3: *Types of Sentences in Posts by Mercedes-Benz USA and Mercedes-Benz India*

	USA		India		Total
	n	%	*n*	%	*n* (%)
No Verb	2	4.2%	0	0.0%	2 (4.2%)
Simple	10	20.8%	12	25.0%	22 (45.8%)
Compound	7	14.6%	3	6.3%	11 (20.9%)
Complex	4	8.3%	7	14.6%	11 (22.9%)
Compound-complex	1	2.1%	2	4.2%	3 (6.3%)

Lexical choices

A chi-square test showed a non-significant relation between country of the account and topic discussed in the posts (χ^2 (4) = 4.27, p = .37). This relation was moderate (Cramer's V = .30). Posts published by Mercedes-Benz USA did not contain different topics from posts published by Mercedes-Benz India. Results of the chi-square (*n* and %) are presented in Figure 1.

Figure 1: *Topic of Captions by Mercedes-Benz USA and Mercedes-Benz India*



Three chi-square tests were conducted to test the relation between country of the account and the use of first-person pronouns, second-person pronouns, and third-person pronouns.

The first chi-square test did not show a significant relation between between country of the account and the use of first-person pronouns (χ^2 (1) = 0.76, p = .38). This relation was weak (Cramer's V = .12). Posts by Mercedes-Benz USA did not contain more first-person pronouns than posts by Mercedes-Benz India.

The second chi-square test did not show a significant relation between between country of the account and the use of second-person pronouns (χ^2 (1) = 0.44, p = .51). This relation was weak (Cramer's V = .10). Posts by Mercedes-Benz USA did not contain more second-person pronouns than posts by Mercedes-Benz India.

The third chi-square test showed a significant relation between between country of the account and the use of third-person pronouns (χ^2 (1) = 5.40, p = .02). This relation was moderate (Cramer's V = .34). While 15% (n = 7) of posts by Mercedes-Benz USA contained third-person pronouns, only 2% (n = 1) of posts published by Mercedes-Benz India did. Results of the chi-square (n and %) are presented in Table 4.

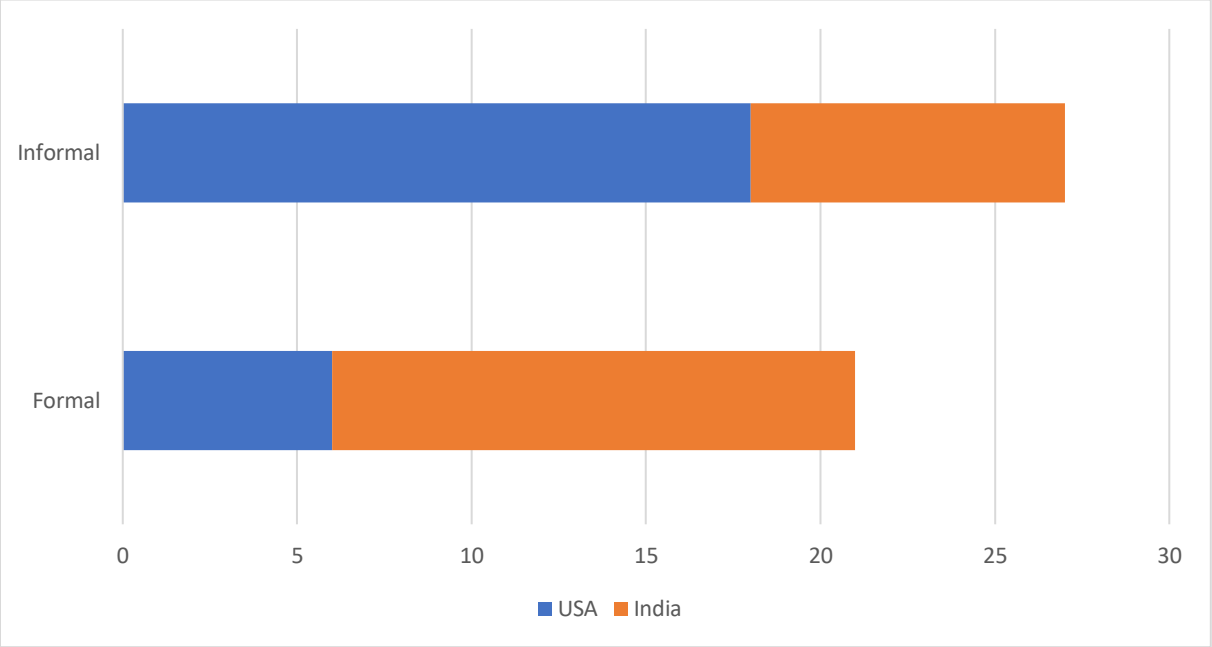
Table 4: *Presence of First-Person Pronouns, Second-Person Pronouns, and Third-Person Pronouns in Posts by Mercedes-Benz USA and Mercedes-Benz India*

		USA		India		Total
		n	%	*n*	%	*n* (%)
First-Person	Absent	20	41.7	22	45.8	42 (87.5)
	Present	4	8.3	2	4.2	6 (12.5)
Second-Person	Absent	17	35.4	19	39.6	36 (75)
	Present	7	14.6	5	10.4	12 (25)
Third-Person	Absent	17	35.4	23	47.9	40 (83.3)
	Present	7	14.6	1	2.1	8 (6.7)

Tone

A chi-square test showed a significant relationship between country of the account and the tone of the post (χ^2 (1) = 6.86, $p < .01$). This relationship was moderate (Cramer's $V = .38$). Posts by Mercedes-Benz USA were more likely to be classified as informal (n = 18, 38%) than posts by Mercedes-Benz India (n = 9, 19%). Conversely, 31% (n = 15) of posts by Mercedes-Benz India were classified as formal, while this was only the case for 13% (n = 6) of posts by Mercedes-Benz USA. Results of the chi-square (n) are presented in Figure 2.

Figure 2: *Tone of Captions in Posts by Mercedes-Benz USA and Mercedes-Benz India*



An independent samples t-test on number of hashtags with country of the account as between-subjects factor was conducted to compare the use of hashtags between Mercedes-Benz USA and Mercedes-Benz India. Number of hashtags for Mercedes-Benz USA and Mercedes-Benz India did not differ significantly (t (45.47) = 1.03, p = .31), 95% CI [−0.36, 1.11]. Posts by Mercedes-Benz India and posts by Mercedes-Benz USA contained an equal number of hashtags. Results of the independent samples t-test (n, M, and SD) are presented in Table 5.

Table 5: *Number of Hashtags in Posts by Mercedes-Benz USA and Mercedes-Benz India*

Country	*n*	*M*	*SD*
USA	24	3.1	1.2
India	24	2.8	1.3

Two chi-square tests were conducted to examine the relationship between country of the account and the presence of a call-to-action as well as the presence of a question in posts.

The first chi-square test did not show a significant relationship between country and the presence of a call-to-action (χ^2 (1) = 1.78, p = .18). This relationship was weak, Cramer's V = .19. Posts by Mercedes-Benz India were not more likely to contain a call-to-action than posts by Mercedes-Benz USA.

The second chi-square test also did not reveal a statistically significant relationship between country and the presence of a question (χ^2 (1) = 3.20, p = .07). This relationship was moderate, Cramer's V = .26. Only posts from Mercedes-Benz USA (n = 3, 6.3%) contained questions, whereas none of the posts from Mercedes-Benz India did. Results of the chi-square tests (n and %) are presented in Table 6.

Table 6: *Presence of Calls-To-Action and Questions in Posts by Mercedes-Benz USA and Mercedes-Benz India*

		USA		India		Total
Calls-To-Action		*n*	%	*n*	%	*n* (%)
	Present	4	8.3%	8	16.7%	12 (25%)
	Absent	20	41.7%	16	33.3%	36 (75%)

Question						
	Present	3	6.3%	0	0%	3 (6.3%)
	Absent	21	43.8%	24	50%	45 (93.8)

The cultural analysis presented findings regarding high PDI scores and low PDI scores. Together, these findings answered sub question 1b focusing on the cultural differences between Mercedes-Benz USA and India.

A chi-square test did not show a significant relationship between country of the account and the low PDI score (χ^2 (4) = 3.52, p = .47). This relationship was moderate (Cramer's V = .27). Low PDI scores were similar for both countries. The chi-square test showed no significant relationship between country of the account and the high PDI score (χ^2 (4) = 3.08, p = .54). This relationship was moderate (Cramer's V = .25). High PDI scores were similar for both countries. Results of the chi-square (*n* and %) are presented in Table 7.

Table 7: *Presence of Low PDI and High PDI in Posts by Mercedes-Benz USA and Mercedes-Benz India*

	USA		India		Total
	n	%	*n*	%	*n* (%)
No sign of low PDI	2	4.2%	1	2.1.%	3 (6.3%)
Weak presence of low PDI	10	20.8%	11	22.9%	21 (43.7%)
Neutral/mixed presence of low PDI	5	10.4%	9	18.8%	14 (29.2%)
Clear presence of low PDI	6	12.5%	3	6.3%	9 (18.8%)
Many signs of low PDI	1	2.1%	0	0.0%	1 (2.1%)

No sign of high PDI	1	2.1%	2	4.2%	3 (6.3%)
Weak presence of high PDI	6	12.5%	2	4.2%	8 (16.7%)
Neutral/mixed presence of high PDI	7	14.6%	6	12.5%	13 (27.1%)
Clear presence of high PDI	7	14.6%	10	20.8%	17 (35.4%)
Many signs of high PDI	3	6.3%	4	8.3%	7 (14.6%)

Findings from the cultural and linguistic analysis answered the main research question. The third analysis examined brand engagement as a result of the brand's social media content. This analysis included number of likes, replies, reposts, and the sentiment of replies.

Three independent samples t-tests were conducted to compare different brand engagement metrics (likes, replies, and reposts) between Mercedes-Benz USA and Mercedes-Benz India.

Number of likes showed a significant difference between the two accounts (t (23.16) = 7.48, p < .001), 95% CI [257.98, 455.02]. Posts by Mercedes-Benz USA (M = 378.4, SD = 233.0) received more likes than posts by Mercedes-Benz India (M = 21.9, SD = 13.9).

Number of replies showed a significant difference between the two accounts (t (23.14) = 6.00, p < .001), 95% CI [6.85, 14.07]. Posts by Mercedes-Benz USA (M = 10.8, SD = 8.5) received more replies than posts by Mercedes-Benz India (M = 0.3, SD = 0.5).

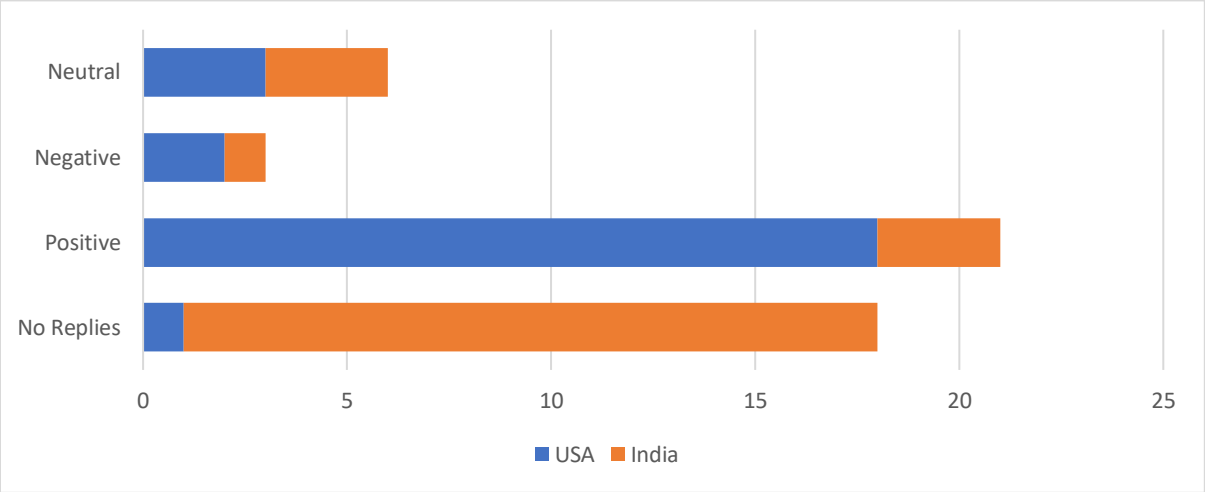
Number of reposts showed a significant difference between the two accounts (t (23.23) = 9.38, p < .001), 95% CI [40.01, 62.65]. Posts by Mercedes-Benz USA (M = 53.5, SD = 26.8) received more reposts than posts by Mercedes-Benz India (M = 2.1, SD = 1.9). Results of the independent samples t-test (n, M, and SD) are presented in Table 8.

Table 8: *Number of Likes, Replies, and Reposts in Posts by Mercedes-Benz USA and Mercedes-Benz India*

		n	*M*	*SD*
Likes	USA	24	378.4	233.0
	India	24	21.9	13.9
Replies	USA	24	10.8	8.5
	India	24	0.3	0.5
Reposts	USA	24	53.5	26.8
	India	24	2.1	1.9

Lastly, a chi-square test showed a significant relation between sentiment type and country of the account (χ^2 (3) = 25.27, $p < .001$). This relation was strong (Cramer's $V = .73$). For many posts by Mercedes-Benz India, replies were absent (35%, $n = 17$). For Mercedes-Benz USA, this only occurred in 2% ($n = 1$) of posts. In total, 38% ($n = 18$) of replies on Mercedes-Benz USA were positive compared to 6% ($n = 3$) of Mercedes-Benz India. Negative sentiment was present for 4% ($n = 2$) of replies on Mercedes-Benz USA and 2% ($n = 1$) of replies on Mercedes-Benz India. Lastly, neutral sentiment was present in an equal number of replies for both accounts ($n = 3$, 6%). Results of the chi-square (*n*) are presented in Figure 3.

Figure 3: *Sentiment of Replies on Posts by Mercedes-Benz USA and Mercedes-Benz India*



In summary, significant differences were present for the number of likes, number of replies, and number of reposts on posts by Mercedes-Benz USA and Mercedes-Benz India. Additionally, significant relationships were found between country of account and third-person pronouns, country of account and tone of caption, and country of account and sentiment type.

Discussion

The aim of this study was to examine how cultural values between the USA and India influence the social media presence of Mercedes-Benz on platform X and how these differences impact brand engagement.

Three different analyses were conducted. The first analysis examined the linguistic differences in order to answer research question 1a. Findings of the linguistic analysis showed that there were no significant differences between the Mercedes-Benz USA and Mercedes-Benz India for many variables. The first examined factor was lexical choices and consisted of the variables topic of the caption and use of pronouns. The topic of captions by Mercedes-Benz USA and Mercedes-Benz India did not differ, luxury was the most popular topic for both accounts. This is in contrast with Kim and Zhang (2014), who discovered that high PDI cultures did show more preference for brands that emphasize status. Therefore, India was expected to focus more content on luxury than USA, which was not true. A possible explanation for this difference is that Kim and Zhang (2014) focused on the preference of consumers, while this study focused on the preference of the company. Brands from USA will prioritize luxury over consumers from USA.

Use of pronouns was divided over first-person (I, me, we, us), second-person pronouns (you), and third-person pronouns (he, she, they). Use of first-person pronouns and second-person pronouns did not differ much, the number of first-person pronouns was slightly higher for USA and number of second-person pronouns was slightly higher for India. However, use of third-person pronouns was significantly higher in posts by Mercedes-Benz USA than Mercedes-Benz India.

Specific findings regarding singular and plural FPP were not present. Therefore, these cannot be compared to Hofstede's theory. Findings regarding SPP are in line with Amirkhiz et al. (2014), numbers were equal for both countries and used for both authority and collaboration. Lastly, TPP were used more often by USA, which contradicts Stawarska (2010) stating that the use of TPP is more likely for high PDI cultures. This difference may be a result of USA making use of a brand-specific strategy rather than a culture-specific strategy. This way, Mercedes-Benz USA can create social distance and emphasize the exclusivity of the brand.

The second factor of the linguistic analysis was linguistic style and examined the length and structure of sentences. Length was measured with word count, sentence count, and average sentence length (number of words divided by number of sentences). Word count, sentence count,

and average sentence length did not differ between USA and India. This suggests that both accounts have a consistent post structure despite having different cultural values. Structures of sentences did not differ between USA and India either. Sentences in captions by both accounts mostly consisted of the simple type with one independent clause. This similarity confirms studies by István (2014) and Hofstede et al. (2010), the accounts did not differ as both maintain a rather flexible position. This may also be seen as an attempt at creating global standardized messages.

According to Mamishev and Williams (2010), writers appear more sophisticated when using a variety of sentence lengths and structures. Additionally, Matthews and Matthews (1997) argued that frequent use of shorter sentences (< 12 words) can make writing appear less professional. As both Mercedes-Benz accounts made use of rather short and simple sentences for most posts, this could have harmed their professional image.

The third factor of the linguistic analysis was tone of captions and examined formality and engagement strategies. Formality measured whether captions were classified as formal or informal. Tone of captions showed significant differences between USA and India, with USA captions being rather informal and India captions being more formal. This finding is in line with findings from Winsted (1993) and Trompenaars & Hampden-Turner (1997). These studies suggested that high PDI/specific cultures (India) are more likely to show formal communication than low PDI/diffuse cultures (USA), who prefer informal communication.

Engagement strategies measured the use of calls-to-action, hashtags, and questions. These did not differ between Mercedes-Benz USA and India. Captions by Mercedes-Benz India did not contain any questions, for USA this was minimal as well. This confirms the study by Lin & Lou (2024) to some extent, who believed low PDI cultures are more open to feedback than high PDI cultures. Findings demonstrated that the low Power Distance culture (USA) posed more questions than the high Power Distance culture (India). However, differences remained minimal.

Posts by Mercedes-Benz India included slightly more calls-to-action than USA. This is rather surprising as literature (Lee et al., 2020; Crespo-Almendros et al., 2023; Lin & Lou, 2024) predicted that low Power Distance cultures (USA) preferred active user participation and direct communication over high Power Distance cultures (India). A possible explanation for this unexpected finding may be an attempt by Mercedes-Benz India to activate higher engagement.

The number of hashtags in captions was similar between both countries, around 3 hashtags on average. This finding did not confirm previous findings by Lee et al. (2020), Crespo-Almendros et al. (2023), and Lin & Lou (2024) either. A possible explanation for the contrast of findings is that these previous studies did not specifically examine hashtag use in social media posts. Instead, focus of the studies was on general areas such as, user participation, directness, and sales promotions in general. Therefore, it was not as simple to compare findings and draw conclusions for this comparison.

The second analysis focused on culture to answer research question 1b. This analysis compared the scores on low Power Distance and scores on high Power Distance between the posts of Mercedes-Benz USA and India. Surprisingly, both tests did not show any significant differences. This indicates that posts from both accounts did not show any explicit signs of only high Power Distance or only low Power Distance. Instead, posts showed signs of both Power Distance categories. This finding is in conflict with Hofstede's (2011) theory, who claimed that these countries have relatively large differences in Power Distance Index scores (40 and 77). According to Hofstede (2011), these PDI scores were supposed to be reflected in the different communication styles of countries, which was not the case in these findings. However, Hofstede did not focus on communication styles targeted toward social media. Therefore, differences in findings may have occurred.

Findings from the linguistic and cultural analysis combined answered the main research question. The third and last analysis examined the effect of their social media presence on the brand engagement. Findings drew conclusions about how the brand's social media content influences the brand engagement and reputation.

This analysis included the number of likes, replies, and reposts as well as the sentiment of those replies. All four factors showed a significant difference between Mercedes-Benz USA and India. Mercedes-Benz USA received significantly more likes, replies, and reposts than Mercedes-Benz India. This is in line with previous studies (Lee et al., 2020; Crespo-Almendros et al., 2023; Lin & Lou, 2024), as followers of Mercedes-Benz USA made more use of active engagement than India.

Hollebeek (2018) discovered that low-status consumers from low PDI cultures (USA) feel more comfortable freely expressing themselves compared to lower-status consumers from high PDI cultures (India). This could explain part of the difference in engagement between the

two accounts. However, differences in engagement can also be explained by the fact that Mercedes-Benz USA is simply a larger account than Mercedes-Benz India. The USA account has much more followers and will always receive more engagement than India despite the cultural values displayed in posts. As most of the posts by Mercedes-Benz India did not receive any replies at all, it is difficult to draw conclusions from this finding. However, it can be concluded that replies on the USA account were dominantly positive. Thus, Mercedes-Benz USA seems to have a positive brand reputation on X.

While the findings showed some significant differences, most factors did not differ between Mercedes-Benz USA and Mercedes Benz India. This could have multiple explanations. Firstly, it may be due to companies' global approach in order to create a consistent universal message on accounts across the world. While these countries have different PDI scores and different cultural values, both accounts aim to create a positive picture of Mercedes-Benz. As posts were from 2024, current globalization of car manufacturing is a large contributor to this international image. By creating standardized messages, Mercedes-Benz hopes to establish a strong international position with similar messages for different countries.

Secondly, the lack of findings may be related to the industry, it is challenging for brands to explicitly display cultural values in social media posts that are promoting vehicles. As Hofstede mentioned, Power Distance is rather visible in ordinary interaction and conversations between people, such as parent-child, teacher-student, and employer-employee. Instead, these posts by Mercedes-Benz USA and India took a more neutral position and did not put much emphasis on any culture-specific aspects.

Thirdly, social media posts could have been similar as both countries operated in English. As this is a more dominant language in USA than in India, the Indian account may not have been able to express culture as efficiently as in a Hindi language. Instead, non-native English countries may use American English or British English as example and replicate aspects of that language leading to similar styles.

Lastly, the outcome may be due to a lack of aspects to examine. As the study only used 48 posts from two countries, this may not be completely representative of the culture displayed in captions. This could be seen as a limitation of the study. A larger corpus with more captions and more variables in the analysis could lead to more insights.

Although the current study provides valuable insight into the use of Power Distance in captions on social media posts, there are several limitations that should be considered in future research. Firstly, the study only focused on two countries: USA and India. This could limit the generalizability of the results. Secondly, there was asymmetry between sizes of the two accounts. Mercedes-Benz USA has significantly more followers than India, meaning that this account will most likely receive more likes, replies, and reposts. This limits the generalizability of the results from the engagement analysis. For example, Mercedes-Benz India did not receive any replies on most posts, making the comparison of sentiment rather difficult. The last limitation has been mentioned before, emphasizing the number of posts and analyzed variables. Including a larger number of posts and studying more diverse aspects per post would create a better understanding of these cultural differences.

Conclusion

In conclusion, findings of this study imply that cultural values are not always reflected in communication styles. While Hofstede's (2011) model serves a strong framework for understanding different countries, the model does not always account for all ways of communicating. Therefore, Hofstede's theory should not be overgeneralized. For example, the model lacks insights regarding digital communication, as it is more than 40 years old. At the time of Hofstede's (1980) development, digital communication was no priority. Additionally, current globalization may diminish the clear distinction between cultures, more brands are trying to establish an international position with standardized messages. As both accounts operate within the luxury sector, linguistic characteristics seemed to be influenced by industry-specific norms rather than cultural effects.

Practically, findings imply that automobile companies are allowed to maintain consistent messages across accounts while implementing cultural aspects. Additionally, differences in online engagement do not always equal differences in reputation. Instead, brands should focus on engagement metrics for specific platforms such as number of reposts on X. Actual brand reputation may be measured through the number of sales for that specific country and reflect how efficient the cultural adaptation of social media posts has been.

Future research is recommended to include more countries with diverse PDI scores and compare different industries to examine industry-specific differences. Investigating a larger number of posts and studying more diverse aspects across different platforms could create a deeper understanding of these cultural differences. Lastly, more recent models may be used, which account for digital communication. For example, Meyer (2014) includes 8 dimensions and can be applied digitally. These recommendations will create a deeper understanding and allows brands to create social media content, which is more in line with the norms of a specific culture as well as the norms of specific social media platforms.

References

Amirkhiz, S. Y. Y., Bakar, K., & Hajhashemi, K. (2014). The Use of Personal Pronouns: A Comparison between Iranian and Malaysian Dyads. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.2637406

Crespo-Almendros, E., Prados-Peña, M. B., Porcu, L., & Pilar, J. M. A. (2023). Building heritage brand equity through social media sales promotion: The role of Power Distance. *International Journal of Tourism Research*, *25*(3), 305–317. https://doi.org/10.1002/jtr.2569

Dunning, J. H., & Lundan, S. M. (2008). Institutions and the OLI paradigm of the multinational enterprise. *Asia Pacific Journal of Management*, *25*(4), 573–593. https://doi.org/10.1007/s10490-007-9074-z

Fetscherin, M., & Toncar, M. (2010). The effects of the country of brand and the country of manufacturing of automobiles. *International Marketing Review, 27*(2), 164–178. https://doi.org/10.1108/02651331021037494

Hall, E. T. (1976). *Beyond culture.* Anchor.

Hall, E. T. (1983). *The dance of life: The other dimension of time*. Anchor.

Harini, R. (2024). International Business of Mercedes-Benz. In *International Journal of Novel Research and Development* (Vol. 9, Issue 10) https://ijnrd.org/papers/IJNRD2410191.pdf

Hofstede, G. (1980). *Culture's consequences: International differences in work-related values.* Sage Publications.

Hofstede, G. (1983). National cultures in four dimensions: A research-based theory of cultural differences among nations. *International Studies of Management & Organization, 13*(1-2), 46-74. https://doi.org/10.1080/00208825.1983.11656358

Hofstede, G. (2011). Dimensionalizing Cultures: The Hofstede Model in context. *Online Readings in Psychology and Culture*, *2*(1). https://doi.org/10.9707/2307-0919.1014

Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). *Cultures and Organizations: Software of the Mind, third edition*. McGraw Hill Professional.

Hollebeek, L. D. (2018). Individual-level cultural consumer engagement styles. *International Marketing Review, 35*(1), 42–71. https://doi.org/10.1108/imr-07-2016-0140

Hussain, R. B. M. (2019). Influence of Social Media on Brand and Branding: A Sociological review. *Jurnal Pengajian Media Malaysia, 21*(2), 89–101. https://doi.org/10.22452/jpmm.vol21no2.5

István, J. (2014) 'The workforce in Indian organizations. An analysis based upon the dimensions of Hofstede's model,' *ResearchGate* https://www.researchgate.net/publication/351346780_The_Workforce_in_Indian_Organizations_An_Analysis_Based_Upon_the_Dimensions_of_Hofstede's_Model.

Jeswani, R. (2023). The Role and Importance of Social Media Marketing in Brand Building. *Irish Interdisciplinary Journal of Science & Research*, *07*(04), 01–09. https://doi.org/10.46759/iijsr.2023.7401

Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business Horizons*, *53*(1), 59–68. https://doi.org/10.1016/j.bushor.2009.09.003

Kim, Y. & Zhang, Y. (2014) 'The impact of Power-Distance belief on consumers' preference for status brands,' *Journal of Global Marketing*, 27(1), pp. 13–29. https://doi.org/10.1080/08911762.2013.844290.

Kornberger, M. (2010). *Brand Society*. https://doi.org/10.1017/cbo9780511802881

Lee, H., Lalwani, A. K., & Wang, J. J. (2020). Price No object!: The Impact of Power Distance Belief on Consumers' Price Sensitivity. *Journal of Marketing*, *84*(6), 113–129. https://doi.org/10.1177/0022242920929718

Lin, H., & Lou, L. (2024). A Study on Cross-Cultural Business Communication Based on Hofstede's Cultural Dimensions Theory. *Open Journal of Social Sciences*, *12*(09), 352–368. https://doi.org/10.4236/jss.2024.129021

Mamishev, A., & Williams, S. (2010). *Technical Writing for Teams: The STREAM Tools Handbook*. https://openlibrary.org/books/OL24789946M/Technical_writing_for_teams

Matthews, J. R., & Matthews, R. W. (1997). Successful scientific writing: a step-by-step guide for the biological and medical sciences. *General Pharmacology the Vascular System*, *28*(1), 168. https://doi.org/10.1016/s0306-3623(97)89868-0

Mayrhofer, U., & Prange, C. (2015). Multinational Corporations (MNC s) and Enterprises (MNE s). *Wiley Encyclopedia of Management*, 1–5. https://doi.org/10.1002/9781118785317.weom060148

Meyer, E. (2014). *The Culture Map: breaking through the invisible boundaries of global business*. PublicAffairs

Muniz, A. M., & O'Guinn, T. C. (2001). Brand community. *Journal of Consumer Research, 27*(4), 412–432. https://doi.org/10.1086/319618

Naegele, K. D., & Goffman, E. (1956). The presentation of self in everyday life. *American Sociological Review, 21*(5), 631. https://doi.org/10.2307/2089106

Sahem, N. D. M. S. (2023). Cross-Cultural Marketing Communication: A comparative analysis of strategies in global campaigns. *International Journal of Engineering and Management Research, 13*(6), 172–181. https://doi.org/10.31033/ijemr.13.6.21

Signorini, P., Wiesemes, R., & Murphy, R. (2009). Developing alternative frameworks for exploring intercultural learning: a critique of Hofstede's cultural difference model. *Teaching in Higher Education, 14*(3), 253–264. https://doi.org/10.1080/13562510902898825

Spencer-Oatey, H. (2004). *Culturally Speaking: Managing Rapport through Talk across Cultures*. Continuum.

Stawarska, B. (2010). Between You and I: Dialogical Phenomenology. In *Dokumen.Pub* (1st ed.). https://dokumen.pub/between-you-and-i-dialogical-phenomenology-1nbsped-0821418866-9780821418864.html

Tocar, S. D. (2019). Comparative Analysis Of Some Cultural Dimensions Systems: A Qualitative Value-Based Approach https://doaj.org/article/15560904636b4c08848ca909eb6cad9f

Trompenaars, F., & Hampden-Turner, C. (1997). *Riding the Waves of Culture: Understanding Cultural Diversity in Business* (2nd ed.). Nicholas Brealey Publishing Limited. https://www.academia.edu/6693076/Riding_The_Waves_Of_Culture_by_Trompenaars

Wang, J. (2008). *Brand new China: Advertising, media and commercial culture*. Cambridge, MA: Harvard University Press.

Winsted, K. (1997). The service experience in two cultures: A behavioral perspective. *Journal of Retailing, 73*(3), 337–360. https://doi.org/10.1016/s0022-4359(97)90022-1

Wurtz, E. (2006). Intercultural Communication on Web sites: A Cross-Cultural Analysis of Web sites from High-Context Cultures and Low-Context Cultures. *Journal of Computer-Mediated Communication, 11*(1), 274–299. https://doi.org/10.1111/j.1083-6101.2006.tb00313.x