



Article

Understanding the Customer Experience and Satisfaction of Casino Hotels in Busan through Online User-Generated Content

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Abstract: Casinos contribute huge sums of tax revenues to local government, and influence the local economy greatly. Customer satisfaction of casino hotels is a key factor that affects overnight customers, when evaluating the casino as a whole. To find out the determinants of customer satisfaction, along with the relationship between the key factors, this study is based on 2897 reviews, focusing on casino hotels in the Busan area, and performs a series analysis. First, text mining techniques are utilized, in order to elucidate which words were mentioned most often in online reviews. Furthermore, the semantic network method as well as factor and regression analysis were conducted. According to the findings, the top 70 ranked keywords are grouped into four clusters: "Entertainment", "Service", "Facilities", and "Atmosphere". The results of exploratory factor analysis are grouped in five factors: "Location", "Outdoor Facilities", "Indoor Facilities" showed significantly positive impact on customer satisfaction, while "Indoor Facilities" and "Entertainment" have a significant negative influence on customer satisfaction. As a result of these findings, theoretical suggestions and practical recommendations have been made, for helping to launch the future marketing strategies of Busan casino hotels.

Keywords: customer experience; customer satisfaction; eWOM (electronic word-of-mouth); text mining; semantic network analysis



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1. Introduction

According to the World Tourism Organization (UNWTO), more than 18 million international tourists arrived in January this year, and this figure has increased by 130% compared with last year; this increment for a month is similar to the total increment of the year 2021 [1]. Tourism is still a strong industry. Within it, the casino industry is the main industry in tourism, with high economic impacts, such as foreign exchange acquisition, taxation, and job creation. For this reason, not only countries with existing casinos, but also countries with legally regulated casinos, are scrambling to introduce more, a movement that is particularly active in Asian countries [2]. Casino gaming is actively supported by the Korean economy, an example of a modern economy; apart from attracting tourists, it also increases local employment rates, contributes higher tax revenues, and brings FDI (Foreign Direct Investments) as well as all kinds of opportunities related to this industry. According to the laws and regulations in South Korea, two types of casinos exist: one is open to every visitor, and another type is only open to foreigners, which means local residents are forbidden to enter [3]. Gamblers from China and Japan comprise the highest number of foreign gamblers visiting Korean casinos [4]. Moreover, Korea has moved away

Sustainability **2022**, 14, 5846 2 of 18

from the pre-2005 "one casino per region" principle (with the exception of Jeju Island), with three casinos in Seoul and two in Busan. There is one foreigner-only casino and one domestic casino operating in Incheon, Gangwon, and Daegu. Casino revenues are increasing every year, as more foreign-only casinos open, attracting more foreign visitors to the casinos, and the role of the casino industry within the tourism industry is expanding [5]. With increasing numbers of foreign visitors coming to the casinos, the casino hotels cannot compete internationally, if they do not cater to their customers [2].

Technology has increasingly become an integral part of our lives. Online usergenerated content is an example of this phenomenon, as social media and user-generated content have grown quickly; for example, online platforms such as Twitter, Facebook and Instagram, which have contributed to the advancement of online reviews greatly. Large numbers of online reviews are forming from customers' experiences and comments. As a result, these reviews have become a valuable source of information, shaping potential customers' purchase intentions and behavior. To maintain sustainable customer satisfaction and loyalty, it is crucial to understand the customer experiences that are derived from online reviews, in order to run a successful business in the long run. Casino hotel management has been increasingly relying on online review analysis in the hospitality industry. Management of casinos and hotel casinos is greatly enhanced by integrated research and analysis of data [6]. In addition, with many different kinds of travel-related information on the Internet, in the case of online reviews, 92% of consumers accept these reviews and make purchasing decisions based on them. In addition, online reviews, as one of the main information search channels, have more influence on purchasing than searching for products, as experiencing products can only be understood through actual experience [7]. For this reason, companies also use online reviews as a two-way communication method to resonate with customers in the market. A number of online travel agency (OTA) hotel websites have become popular in this context, such as Hotels.com and Agoda.com (accessed on 7 May 2022) [8].

With the large number and rapid spread of online reviews, it is crucial to understand which selection attributes are most important and influential. Besides, as the role of online reviews grows, various fields are conducting studies on them. De, Van, and Holthof examined whether digital marketing strategies have a direct influence over the occupancy rates of hotel rooms; through online reviews analysis, it was found that the mediating effect of volume and value indirectly affects hotel room occupancy [9]. The interaction effects of one information source factor and two information structure features about the trustworthiness of hotel online reviews were investigated, using a cognitive heuristic, by Lo and Yao. Three factors influencing the trustworthiness of hotel online reviews were found to interact: reviewer expertise, rating consistency, and valence [10]. Zeng, Cao, and Xiao investigated the direct effect and interaction effect between online reviews and VR (Virtual Reality), and how it affects hotel bookings [11]. Ban, Kim, and Kim explained customer experience at Monte Carlo hotels, by utilizing online reviews [12]. However, research centered on online reviews of Busan casino hotels is still very limited. In other words, there were no previous studies about the customer satisfaction of Busan casino hotels, using evidence from online reviews as the method. Therefore, this study collected online reviews of casino hotels in Busan. The Lotte Hotel and Paradise Hotel casino hotels in Busan were used as the subjects of this study. The online review data from these two casinos were used to understand customer behavior and to study customer experience, to determine the key attributes which have an influential effect on overall customer satisfaction.

It is the purpose of this study to assess customer networks at Busan casino hotels, by analyzing customer eWOM (electronic word-of-mouth) and classifying their influencing factors, along with analyzing the relationship between customer feedback and customer satisfaction. Furthermore, the evaluation focus and its influencing factors are revealed. This research highlights the common characteristics of eWOM, by customers in the casino hotel business, and offers more general recommendations with particular marketing implications for the casino hotel industry.

Sustainability **2022**, 14, 5846 3 of 18

2. Literature Review

2.1. Customer Experience (CE) and Customer Satisfaction (CS)

As markets change from company-driven to customer-driven, increased interest in customer experience and satisfaction is the inevitable result. With the definition as an evaluation of the customer experience of the service they experienced, customer satisfaction has been recognized as an important goal of a company's marketing activities. In addition to increasing customer satisfaction, enhancing corporate reputation, reducing price elasticity, and improving employee performance, promoting the customer experience can also increase corporate reputation and generate more profits for the company [13–15]. Customer expectations should be understood, so that organizations can provide them with the best comparative criteria to measure whether an organization is doing what is expected of it [16]. Service quality reflects the feeling of customers on how efficiently the business presents itself [17]. Furthermore, customer satisfaction refers to the experience of a particular service, which helps to creating customer loyalty, repurchasing behavior, good word-of-mouth, and, most importantly, the creation of profits for the business [18].

When choosing a hotel, customers would consider certain attributes of the hotel as more important than others [19]. Consumer preference and considerations of the hotel selection attributes is a way of judging satisfaction [20,21]. Thus, finding customer preferences is part of the attempt to improve service quality and satisfaction, and, moreover, to obtain a strategic competitive advantage [22]. In particular, hotel customer satisfaction is a complex human experience, and research on hotel service and customer satisfaction began in the 1970s. Hunt defines hotel customer satisfaction as the emotional response to the service or product experienced by the customer [23]. Khudhair, Jusoh, Nor, and Mardani found that satisfaction is influenced not only by cognitive and emotional processes, but also by other psychological and physiological factors [24]. Based on behavioral intention studies conducted on hotel services quality and customer satisfaction, higher levels of satisfaction were associated with a higher likelihood of returning to the hotel or recommending it to others [25]. The relevant studies are reported in Table 1.

In other words, customer satisfaction is a continuous state of trust, in which customers repurchase goods and services in response to their expectations and needs. Therefore, customer-oriented thinking is emphasized to provide consumer satisfaction, while still generating long-term profits. In summary, customer satisfaction can be defined as meeting customer needs and expectations and, also, as a state in which the intention to revisit a product or service, as well as customer trust and loyalty, is maintained.

2.2. *eWOM*

Along with the fast expansion of the Internet, the online exchange of word-of-mouth information among consumers has become more active. Online word of mouth spreads quickly and widely through chat, messengers, and written comments via personal blogs or bulletin boards, and the data are easy to collect [32]. The difference between eWOM and offline WOM is that the former has elements, such as online bulletin boards, in addition to products and consumers. It is delivered online in a variety of forms, from what consumers say when they make a purchase to what they say after they use the product, to personal testimonials about the product, and to their intentions to repurchase [33]. The development of eWOM is Internet-based, delivering or exchanging product information and purchase experiences through online platforms [34,35]. The term of eWOM is different from WOM, as it is more effective for customers, since it allows for writing and editing anywhere at any time. Customers share their reviews about products via online platforms such as SNS (Social Network Services), without consideration of any monetary gain. Reviews from other customers are more trustworthy than commercial advertisements [36]. With the Internet as a free zone, its users are encouraged to create and share experiences and feelings continually.

Sustainability **2022**, 14, 5846 4 of 18

Table 1. Customer-experience- and customer-satisfaction-related research.

Author	Year	Main Point
Xu, F., La, L., Zhen, F., Lobsang, T., and Huang, C. [26]	2019	This study collected comments from Airbnb guests. It deconstructed the nature of the shared experience using a textual analysis approach. According to the findings, factors such as the amenities in a room and the home experience influence satisfaction significantly.
González-Mansilla, Ó., Berenguer-Contrí, G., and Serra-Cantallops, A. [27]	2019	This study showed that the level of customer engagement is highly correlated with how they perceive the hotel's support of value co-creation. Furthermore, both brand equity and perceived value have a positive correlation with customer satisfaction.
Lo. [28]	2020	The study surveyed guests of two resort hotels in Asia. According to the results, hotel managers can build stronger guest relationships by engaging guests in appropriate and relevant corporate–social responsibility activities.
Bonfanti, A., Vigolo, V., and Yfantidou, G. [29]	2021	This study investigates hotel managers' efforts to ensure safe guest experiences in the wake of the deadly outbreak of CVID-19. Using this model, hotel managers can develop strategies to create a reliable environment for customers.
Paulose, D. and Shakeel, A. [30]	2022	Based on the occurrence of COVID-19 in the Indian hospitality industry, the present study examines guest loyalty through perceptions about value and experience. According to the study, the perception of value and the level of service influenced guest loyalty and satisfaction positively. Customers who perceived high service values were most likely to be satisfied and loyal.
Prentice, C., Dominique-Ferreira, S., Ferreira, A., and Wang, X. A. [31]	2022	The study examined the attitudinal and behavioral responses of the older customer were examined in relation to memorable experiences, emotional intelligence, and the interaction between these factors. Customer satisfaction, customer loyalty, and memorable experiences were significantly impacted by staff service compared to non-personal interactions.

Services are characterized by their divisibility and intangibility, in the case of simultaneous purchase and consumption, which is different from common products [37]. Thus, in order to avoid failure, customers require more useful information in detail. Meanwhile, users search for a wide range of suggestions from experienced users, rather than obtaining limited information from their surroundings [38]. According to Choi and Choi [39], this is because customers are more likely to have a perception of the actual customer when buying experiential products. In their study, Hu, Zhang, Gao, and Bose [40] argued that online reviews are more valuable than the information provided by businesses or organizations. Reviewing online reviews is an excellent way for other customers to learn more about casino hotels. Thus, reviewers play the role of opinion leaders, whether they are the most important or not.

A significant amount of research has been conducted, recently, on WOM's effects on consumer purchase actions. For example, Shankar, Jebarajakirthy, and Ashaduzzaman [41] provided advice on how to use aggressive eWOM to motivate consumers to use mobile banking.

Researchers Hu and Kim [42] investigated the impact of eWOM influence on customers' behavior in a hotel environment Belarmino and Koh [43] defined statements that are favorable or negative of a particular good or service, through real attainable buyers using the service prior to WOM communication on the Internet. Online reviews containing information that cannot be matched offline, such as those on product ratings/review boards, in product/service communities, and in mall-run consumer review communities, which spread quickly [44]. The relevant studies are reported in Table 2.

By collecting and analyzing online reviews, it is possible to understand the emotions, perceptions, and results of each person's travel experience, thus providing a service cus-

Sustainability **2022**, 14, 5846 5 of 18

tomized to each user's characteristics and preferences. Understanding accurate customer trends is more important than anything else, and the processing and analysis of big data through online reviews is being introduced to the travel industry [45]. As a result, there is an increasing demand for online review studies in the casino hotel travel sector. Most research conducted on online reviews related to casino hotels is insufficient. In particular, access to online reviews of casino hotel products is a representative experience known to have a significant impact on customers. The goal of the study is set to extract the main concerns and influences of customers, after experiencing the casino hotel via reviews and ratings on a Google Travel webpage, and to conduct text mining to examine the influences on customer satisfaction.

Table 2. Electronic word-of-mouth related resea	arch.	resear	lated	ı rel	-mouth	word-of	lectronic	2. E	Table 2
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Author	Year	Main Point
Sijoria, C., Mukherjee, S., and Datta, B. [46]	2019	The influence of eWOM on CBBE of branded hotels was investigated and results identified several antecedents of hotel eWOM.
Yen, C. L. A. and Tang, C. H. H. [47]	2019	Key determinants of each eWOM behavior has also been investigated. Results showed relevant variables to general eWOM behavior, while demographics or accommodation choices will not affect eWOM behavior.
Zinko, R., Furner, C. P., de Burgh-Woodman, H., Johnson, P., and Sluhan, A. [48]	2020	This study investigated customer perceptions on three replicated online reviews website. Results suggest that consumers regard reviews with photos as more credible, so it is also recommended that successful visuals should be in sync with the review's content.
Aakash, A., Tandon, A., and Gupta Aggarwal, A. [49]	2021	This study found out the characteristics of hotel guest satisfaction and significance of visitor satisfaction-related features.
Lee, H., Min, J., and Yuan, J. [50]	2021	Planned behavior theory was used, which included an expanded model of technology adoption and four selected building blocks (perceived utility, pleasure, subjective norms, and perceived behavioral control). Results of this study demonstrate how eWOM influences Gen Y's decision-making, when booking upscale hotels.
Sann, R., Lai, P. C., Liaw, S. Y., and Chen, C. T. [51]	2022	Big data analytics and mining algorithms were occupied to forecast complaint attributions for hotels with different categories. The innovative data mining techniques could target improving hotel operations and fulfilling target visitors' requirements and desires.
Kim, Y. J. and Kim, H. S. [52]	2022	The mechanism on fundamental choice criteria and customer happiness is based on online evaluations of hotel customer experiences. The findings imply that service is a crucial deciding factor for customers, and that more excellent service is required, particularly after the pandemic.

2.3. Text Mining and Semantic Network Analysis

The term text mining means the process of extracting information from a text, utilizing information and natural language techniques [53]. Once the research data has been collected, the type of information sought by the researcher is determined. The analysis stage analyzes text based on techniques such as information extraction, clustering, and classification, using the knowledge accumulated by the management information system [54,55].

To understand the systemic structure of society, semantic network analysis identifies and explains the relationships between the actors in a social network. Thus, semantic network analysis does not assume the frequency of specific nomadic words in the state or in the sentence, while using the semantic pattern of the message, which is analyzed through the relationship between the words [56]. In this situation, the word or information unit treats the phrase as a concept that constitutes each node, representing the state of connection between concepts as a link [57].

In this context, the use of the semantic web analytics domain in information analysis is gradually increasing. By analyzing semantic networks, Fu and Kim [58] examined the dimensions that reflect the perceptions of Chinese consumers regarding wine. Lee

Sustainability **2022**, 14, 5846 6 of 18

and Kim [59] analyzed the semantic network of texts related to "culinary academy" to understand the meaning of the words, and suggested practical implications for improving various programs, such as marketing directions and curriculum. Kim [60] collected big data related to a food show held at an exhibition and explored the highest frequencies through text mining and performing semantic network analysis. Reviewing these previous studies, it can be seen that semantic network analysis can analyze the frequency of keywords appearing on the Internet and the link status between these keywords (nodes), which can be an effective method to understand the meaning of intention streams.

3. Methodology

In comparison with previous studies that drew conclusions through literature reviews and empirical analysis, this study utilized big data analysis. First, customer reviews from online travel agencies and previous research on big data were used to define the research process. Next, we ascertained the feelings of users after staying at the actual casino hotel. To understand the contents, this study collected relevant texts using reviews from registered users of a Google Travel webpage, provided by Google, the world's largest Internet search engine. In order to use unstructured data, the data collected through the review were used as analysis data, the text was refined, the frequency of the extracted data was calculated using text mining, and the keywords were selected. For semantic network analysis, matrix data were produced, by classifying the selected words.

The first priority was to collect the data, and this was done using the SCTM (Smart Crawling Text Mining) 3.0 program, for extracting online reviews and ratings of casino hotels in Busan. The period of online review data collection was three years, from 1 January 2019 to 31 December 2021. In total, 2897 online reviews were collected. The second step was to perform preprocessing and morphological analysis. The researcher processed the collected data using the RStudio program and Ucinet 6.0. Next, the system transformed the unstructured data into structured data and visualized the word frequency. The last step was data analysis. After frequency analysis, the data were also analyzed by using the SPSS program. Figure 1 below illustrates the detailed research procedures for conducting this study.

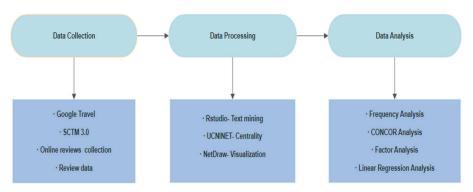


Figure 1. Research procedures.

4. Results

4.1. Frequency Analysis

This study collected data on reviews written between 1 January 2019 and 31 December 2021, on a Google Travel webpage, with 2897 reviews collected. After removing unnecessary data and languages other than English, Table 3 lists the keywords that are commonly associated with the experiences in Busan casino hotels. Words of "good", "hotel", "view", "Haeundae", and "pool" were ranked at the top five positions, and the results of the network visualization reflecting the frequency are shown in Figure 2. Within this figure, top frequent words are presented as blue cubes, as shown in the figure, so words such as "good", "hotel", and "view" were the three biggest blue cubes, which corresponded with the results from Table 3. The sizes of these cubes were closely related to their frequency

Sustainability **2022**, 14, 5846 7 of 18

in the reviews, and the black lines showed the connections between these frequent words. There were words that described the service, such as "hotel", "service", "nice", "staff", and "friendly"; these words represent the nice service provided by the hotel staff. Those that described the facility, such as "pool", "room", "spa", "outdoor", "parking", "beach", "sauna", "table", and "bath", listed the facilities within casino hotels, no matter whether for a relaxing purpose such as the beach-side pool, spa center, sauna room, and bath, or for a functional purpose such as a casino hotel room, its tables, and outdoor parking lots. Moreover, there were words related to food, such as "breakfast", "food", "buffet", "water", "tea", and "restaurant"; words in this category represent the dining service provided in casino hotels, containing general words such as "restaurant" and "food", while, also, containing specific food and beverages such as its "breakfast", "buffet", "water", or "tea"; and words related to the location, such as "Busan", "location", "place", "Haeundae", and "paradise", demonstrated the important of its special place location in Busan, such as the famous Paradise Casino Hotel located in the Haeundae area.

Table 3. Top 70 most frequently used words.

Word	Frequency	%	Rank	Word	Frequency	%	Rank
good	1225	9.85%	1	enjoy	117	0.94%	36
hotel	815	6.55%	2	small	111	0.89%	37
view	609	4.90%	3	beautiful	108	0.87%	38
Haeundae	482	3.87%	4	night	106	0.85%	39
pool	456	3.67%	5	kids	93	0.75%	40
room	416	3.34%	6	parking	93	0.75%	41
best	404	3.25%	7	comfortable	89	0.72%	42
beach	365	2.93%	8	free	88	0.71%	43
swimming	271	2.18%	9	restaurant	86	0.69%	44
place	264	2.12%	10	star	80	0.64%	45
service	262	2.11%	11	bed	75	0.60%	46
nice	256	2.06%	12	family	71	0.57%	47
Busan	253	2.03%	13	atmosphere	69	0.55%	48
spa	251	2.02%	14	close	68	0.55%	49
staff	242	1.95%	15	water	65	0.52%	50
facilities	242	1.95%	16	Japanese	64	0.51%	51
clean	225	1.81%	17	visit	62	0.50%	52
casino	213	1.71%	18	lounge	62	0.50%	53
paradise	212	1.70%	19	excellent	61	0.49%	54
location	211	1.70%	20	money	59	0.47%	55
ocean	208	1.67%	21	terrace	59	0.47%	56
friendly	197	1.58%	22	experience	58	0.47%	57
breakfast	184	1.48%	23	bath	56	0.45%	58
outdoor	180	1.45%	24	sauna	55	0.44%	59
food	170	1.37%	25	table	54	0.43%	60
old	164	1.32%	26	luxurious	54	0.43%	61
new	157	1.26%	27	love	54	0.43%	62
time	155	1.25%	28	open	53	0.43%	63
hot	153	1.23%	29	tea	53	0.43%	64
price	136	1.09%	30	recommend	52	0.42%	65
buffet	135	1.09%	31	especially	51	0.41%	66
floor	130	1.05%	32	wonderful	50	0.40%	67
delicious	130	1.05%	33	fun	49	0.39%	68
expensive	126	1.01%	34	Chinese	49	0.39%	69
play	118	0.95%	35	crowded	48	0.39%	70

Sustainability **2022**, 14, 5846 8 of 18

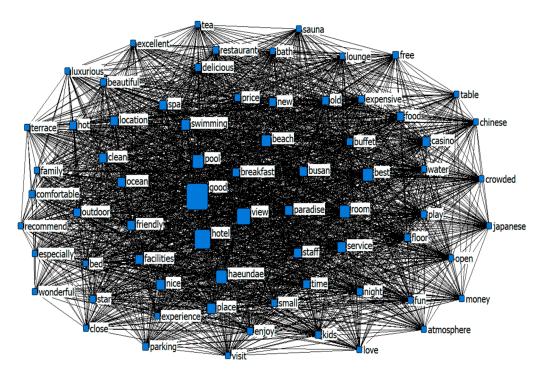


Figure 2. Visualization of top 70 frequency words.

4.2. Semantic Network Analysis

To discover and express the connections between words, the keywords were analyzed for centrality and CONCOR. Table 4, below, demonstrated the results from the analysis of the top 70 keywords of Busan casino hotel online reviews.

The Freeman's degree centrality calculates the number of connections a node posses, and when a word has the most connections, it would probably be central; the connection of nodes represents the influential and dominance position of the nodes [61]. Different with degree centrality, the term of eigenvector centrality emphasis more about the connection relationship. Therefore, the eigenvector values are important for identifying the most influential nodes [62].

The results show that "good", "hotel", and "view" ranked at the top position for both Freeman's degree centrality and eigenvector centrality. The keyword "facilities" ranked lower in frequency and degree centrality, but ranked relatively higher in eigenvector centrality. The keywords of "pool", "spa", "staff", "ocean", "friendly", "breakfast", and "outdoor" ranked higher, but relatively lower in frequency. Nevertheless, the words "Haeundae", "place", "nice", "Busan", "casino", and "paradise" ranked higher in frequency and lower in centrality.

CONCOR analysis is aiming at measuring and discovering pattern among connecting words. It grouped words into clusters, consisting of keywords that are similar to one another [63]. CONCOR analysis examines correlations in order to find certain degrees of similarity among clusters. Our study identified node segments based on the correlation coefficients and then grouped similar words into clusters [64]. The NetDraw function in software UCINET 6.0 program was utilized to visualize the results. Blue-colored nodes of the visualization network represent the keywords connections, their sizes relate to the frequency, and black lines show the connections among all keywords.

Sustainability **2022**, 14, 5846 9 of 18

Table 4. Comparison of the keywords' frequency and centrality.

Words	Freq Words		Freeman' Cent		Eigenvector	Centrality
	Freq.	Rank	Coeff.	Rank	Coeff.	Rank
good	1225	1	23.621	1	0.361	1
hotel	815	2	21.231	2	0.321	2
view	609	3	17.499	3	0.294	3
Haeundae	482	4	13.714	6	0.239	6
pool	456	5	16.667	4	0.277	4
room	416	6	15.455	5	0.25	5
best	404	7	9.82	10	0.175	9
beach	365	8	11.41	7	0.199	7
swimming	271	9	10.815	8	0.194	8
place	264	10	6.9	21	0.115	20
service	262	11	8.35	12	0.145	11
nice	256	12	7.333	17	0.126	16
Busan	253	13	7.441	16	0.122	19
spa	251	14	10.004	9	0.173	10
facilities	242	16	8.252	13	0.145	12
staff	242	15	8.89	11	0.138	14
clean	225	17	6.446	22	0.113	22
casino	213	18	3.796	36	0.055	41
paradise	212	19	6.089	23	0.104	23
location	211	20	7.073	19	0.124	17
ocean	208	21	8.047	15	0.141	13
friendly	197	22	7.095	18	0.115	21
breakfast	184	23	8.155	14	0.137	15
outdoor	180	24	6.976	20	0.123	18
food	170	25	5.202	27	0.085	27
old	164	26	4.51	30	0.074	30
new	157	27	6.024	24	0.099	25
time	155	28	5.538	26	0.09	26
hot	153	29	5.775	25	0.1	24
price	136	30	4.24	33	0.071	32
buffet	135	31	4.672	28	0.076	28
delicious	130	33	4.315	32	0.066	34
floor	130	32	4.672	29	0.072	31
expensive	126	34	3.591	39	0.061	38
play	118	35	3.537	40	0.056	40
enjoy	117	36	4.402	31	0.074	29
small	111	37	3.883	35	0.063	36
beautiful	108	38	3.245	43	0.052	43
night	106	39	3.764	37	0.064	35
kids	93	40	4.023	34	0.069	33

Figure 3 shows the visualization result of the CONCOR analysis. Four groups were named, "entertainment", "service", "facilities", and "atmosphere". To make it easy to figure out which word belongs to which certain categories, the words are grouped, and the words to be noticed are presented in Table 5. The group names were selected by taking into account the characteristics of the words. The "Entertainment" group includes "visit", "enjoy", "casino", "game", "food", "restaurant", "breakfast", "delicious", "night", "fun", and "love", which are important terms in the casino hotel industry; these words reflect the entertainment function of casino hotels, for instance, customers visit normally at night time to enjoy the casino games, or they also prefer to enjoy the delicious food in the restaurants; the experience makes customers feel fun, so they love it. The "Service" group consists of "recommendation", "staff", "service", "experience", "friendly", etc., which includes various casino hotel services, so timely, good recommendations provided by friendly hotel staff are critical for customers, when they evaluate the service aspect

Sustainability **2022**, 14, 5846 10 of 18

of a certain hotel. The "Facilities" group refers to casino hotel facilities, such as "pool", "sauna", "spa", "table", "bed", "bath", "swimming", "parking", "lounge", "terrace", and "swimming"; this group is simply related to the facilities in the hotels, no matter if it is about the relaxing facilities such as the swimming pool, sauna or spa, or if it is about the functioning facilities such as the parking lot, lounge for processing check-in issues, etc. The last group, "Atmosphere", comprises words related to the atmosphere such as "beautiful", "clean", "wonderful", "comfortable", "excellent", and "luxurious"; this group illustrated the emotional feelings of customers, as some feelings might relate to the tangible facilities; for example, customers might appreciate the cleanliness of the environment, comfortability of the chairs, or the luxurious decorations of the gambling rooms; some feelings might be about the intangible services, such as the wonderful and beautiful ocean views, or the best experiences they had there.

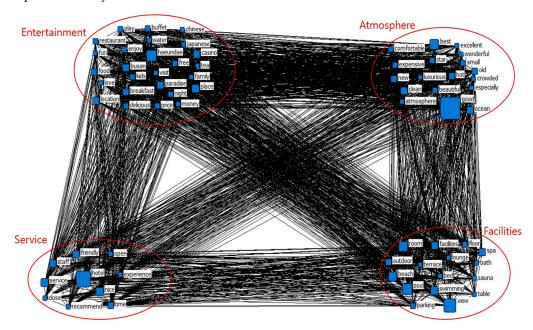


Figure 3. Visualization of CONCOR analysis.

Table 5. CONCOR analysis.

	Extracted Words	Significant Words
Entertainment	kids/visit/enjoy/Haeundae/family/ place/location/casino/Busan/ love/night/play/fun/money/ restaurant/food/price/free/ Chinese/breakfast/Japanese/ water/tea/buffet/delicious/ paradise	visit/enjoy/ family/ casino/love/night/play/fun/money/ restaurant/food/price/free/ breakfast/ water/tea/buffet/ delicious/
Service	open/staff/friendly/nice/ close/recommend/experience/ service/hotel/time	staff/friendly/nice/ recommend/experience/ service/
Facilities	bed/lounge/sauna/beach/ terrace/ spa/room/facilities/ view/swimming/table/ parking/bath/floor/pool/ outdoor	bed/lounge/sauna/ terrace/spa/room/ facilities/ swimming/table/ parking/bath/floor/pool/
Atmosphere	clean/excellent/new/old/star/small/beautiful/luxurious/comfortable/expensive/atmosphere/hot/ocean/wonderful/especially/best/good/crowded	clean/excellent/new/old/star/small/beautiful/luxurious/comfortable/atmosphere/hot/ocean/wonderful/crowded

Sustainability **2022**, 14, 5846 11 of 18

4.3. Factor Analysis

Table 6 shows factor loading and the KMO test. The Cronbach alpha value for measurement items is 0.690, showing internal consistency. The results indicated the correlation matrix has an overall significant, which indicates that the dataset of this study is applicable for use to conduct exploratory factor analysis. These five factors, named as "Location", "Outdoor Facilities", "Indoor Facilities", "Services", and "Entertainment", are also named as factors 1-5, respectively. The naming method is based on the common characteristics of the words loaded in the group. For factor 1, related to the accessible location "Location", it contains "hotel", "hot", "Busan", "best", and "Haeundae"; these words possess a loading value greater then 0.4 and have a common feature, which is to describe the location of casino hotels in Busan. Factor 2 comprises "pool", "swimming", "spa", and "outdoor", which are related to the outdoor facilities in the hotel. Factor 3 concerns the indoor facilities in the hotel, containing "comfortable", "table", and "bed". Factor 4 includes aspects related to casino hotel services, such as "staff", "friendly", "room", and "service". Factor 5 encompasses "enjoy", "fun", "casino", and "play", which are related to entertainment; these factors are also the most important part for casino hotels, since people choose to stay in casino hotels mostly for the fun atmosphere.

Table 6. Results of factor analysis.

	Words	Factor Loading	Eigen Value	Variance (%)	
	hotel	0.890			
	hot	0.877			
Location	Busan	0.488	3.211	10.705	
	best	0.471			
	Haeundae	0.425			
	pool	0.823			
O. (1 F 110	swimming	0.782	1 000	C C C A	
Outdoor Facilities	spa	0.548	1.999	6.664	
	outdoor	0.524			
	comfortable	0.900	1.766		
Indoor Facilities	table	0.883		5.886	
	bed	0.451			
	staff	0.643		F F0F	
C	friendly	0.491	1 (70		
Service	room	0.491	1.679	5.597	
	service	0.415			
	enjoy	0.644			
E	fun	0.595	1.077	4.502	
Entertainment	casino	0.494	1.377	4.592	
	play	0.438			
	Total	l variance (%) = 33.4	.43		
	KMO (Ka	aiser-Meyer-Olkin) :	= 0.636		
	Bartlett chi-sq	uared $(p) = 15841.12$	6 (p < 0.001)		

4.4. Linear Regression Analysis

Regression analysis was performed to examine CE and CS, as shown in Table 7. This analysis consists of five independent variables—Location (L), Outdoor Facilities (O), Indoor Facilities (I), Services (S), and Entertainment (E). R² equals 0.022, so this figure indicated that the overall variance explained by the five factors was 2.2%. Since many of the elements impacting CE and CS may not have been included, it is difficult to include all relevant variables into account, for example, the opinions from text mining data, to estimate the output variables. Especially in the social science field, it is impossible to include all variables to predict the outcome. Therefore, the R² value can be seen below [64–66]. There

Sustainability **2022**, 14, 5846 12 of 18

are some examples from previous studies that encountered the same problem. Study of the online reviews of washing machines by Kim and Noh had a similar situation with the low R-square problem; they stated that in regression models relating to opinion mining, it is difficult to have all relevant variables in order to predict the output variable [64]. Gennaioli et al. conducted research about the relationship of bond holdings of 20,000 banks over 191 countries, and, during sovereign default, how it would affect their changes in loans; they met the same situation of low R², but this would not affect the explanation of the results, so their conclusion is still tenable [66]. "Location (L, $\beta = 0.083$, p = 0.000)", "Outdoor Facilities (O, $\beta = 0.092$, p = 0.000), "Indoor Facilities (I, $\beta = -0.046$, p = 0.012)", and "Entertainment (E, $\beta = -0.063$, p = 0.001) were significant at the p < 0.5 level; this factor showed a positive relationship with the overall CS. The "Outdoor Facilities (O)" factor had the highest standardized coefficient, meaning that this aspect of the experience for Busan casino hotel customers is the most vital factor, and it is significantly related to overall CS. Evidence shown in the online reviews "Perfect place for enjoying Haeundae and staycation. Hotel facilities are amazing, especially the outdoor spa", and "Possibly the best-viewed hotel room in Busan. Pricing is very reasonable along with a great buffet. The outdoor pool and spa are also beautiful." Warm water during the winter season is related to CE, with the evidence affecting the "Outdoor Facilities" attribute.

Table 7. Results of linear regression analysis.

Model DV: CS	Unstan Coef.	Unstandardized Coef.		t
Dv: CS	В	Std. Error	Beta	
(Constant)	4.393	0.017		257.392
Location	0.077	0.017	0.083	4.526 ***
Outdoor Facilities	0.085	0.017	0.092	5.004 ***
Indoor Facilities	-0.043	0.017	-0.046	-2.513 *
Service	0.023	0.017	0.025	1.351
Entertainment	-0.058	0.017	-0.063	-3.409 **

Notes: $R^2 = 0.022$; adjusted $R^2 = 0.020$; F = 13.059; * p < 0.05, ** p < 0.01, *** p < 0.001.

5. Discussion

This study was designed to dig out the CE and CS, via analysis of online reviews of casino hotels in Busan area. In order to conduct this study, there were several steps that have been taken. As the results from frequency analysis, a total of 70 words with the highest frequency were analyzed for degree and eigenvector centrality, to discover connections between them and to identify the most influential word from all the keywords. CONCOR analysis followed, aiming to group these keywords; they were named as "Entertainment", "Service", "Facilities", and "Atmosphere". In tital, 68 keyword dimensions led to 20 in the factor analysis process, and these 20 words were then grouped into five factors, named "Location", "Outdoor Facilities", "Indoor Facilities", "Services", and "Entertainment". The clusters were able to be linked between CONCOR analysis and factor analysis; for example, "Entertainment" with "Location" and "Entertainment", "Services" with "Services", and "Facilities" with "Outdoor Facilities" and "Indoor Facilities".

Firstly, the factor "Outdoor Facilities" showed the highest beta coefficient. This factor consists words of "pool", "swimming", and "outdoor". In particular, "pool", "swimming", and "spa" were the words that appeared most frequently in online Busan casino hotel reviews. This shows that Busan casino hotel customers like to relax and relieve stress by swimming or going to the spa in their free time. For this reason, hotel managers should focus more on the construction and environment of their hotels, as well as strengthening management, to provide an environment for leisure and entertainment that better suits customers, while providing friendly services to improve customer satisfaction.

Second, the second highest beta value was for "Location". The related words in the factor analysis were "hotel", "hot", "Busan", "best", and "Haeundae", which were very

Sustainability **2022**, 14, 5846 13 of 18

high in the frequency analysis. It can be seen from this that Busan casino hotel guests are very satisfied with Busan and the location of the hotel; therefore, hotel management should strengthen the network promotion service of the casino hotel and provide tour guide services to encourage guests to visit the surrounding area of Busan, so as to improve the satisfaction of the customers in different ways. In particular, the keyword "Haeundae" appears frequently in the online reviews of Busan casino hotels, which indicates that foreign customers coming to Busan like to visit Haeundae for sightseeing. Thus, the hotel should provide a special car service for VIP customers to improve the travel convenience for customers.

Finally, the "Indoor Facilities" and "Entertainment" beta values were negatively related to overall satisfaction, with "Indoor Facilities" and relevant words being "comfortable", "table", and "bed", and the "Entertainment"-related words being "enjoy", "fun", "casino", and "play". This reveals that customers were dissatisfied with the indoor facilities and entertainment of Busan casino hotels after their stay. Some reviews also reflected on these problems, for instance, 'I wondered if one of the beds was loose and I got seriously injured while getting up'; 'It smells very fishy with piss. At first, I thought it was sensitive, but I kept tossing and gave up sleep. I smelled and couldn't sleep. There is no ventilation and I have to open the balcony door, but it was winter, so I opened it for a while and almost died'; 'This place took my money. Gambling in the United States is way better'; these customers all had terrible experiences with the indoor facilities and felt such a facilities condition is not suitable for a five-star hotel. For 'I lost my money', such reviews from customers who had experienced money-losing during the gambling made them feel negative toward the hotels. A previous study about Macao casino hotels also showed that some customers are not satisfied with the physical environment, as some facilities are not in very good condition; thus, it might be a common problem for casino hotels: they pay too much attention to the gambling parts, but do not pay enough attention to the facility aspect [67–69]. For entertainment dissatisfaction, there was also a study that showed a similar result: customers felt unhappy about the entertainment aspect of casino hotels [70]. Therefore, indoor entertainment and facilities of the casino hotels should be improved as much as possible, to provide more varied entertainment programs and activities to increase guest satisfaction.

6. Conclusions

6.1. Purpose of Study and Main Findings

This study set out to investigate the major determining factors that affect customer satisfaction, via the text mining method, mainly focusing on casino hotels in the Busan area. Results of this investigation revealed that the top three frequent words are "good", "hotel", and "view"; this result demonstrated the relatively positive overall attitudes of customers towards casino hotels in the Busan area, as well as customer concerns about the views of casino hotels. CONCOR analysis divided keywords into four clusters, and these clusters have been named based on their distinctive characteristics. The four cluster are named as "Entertainment", "Atmosphere", "Service", and "Facility". Factor analysis resulted in five factors named "Location", "Outdoor Facility", "Indoor Facility", "Service", and "Entertainment". Linear regression analysis showed that, except for "Service", all factors have a significant impact on overall customer satisfaction; among the four factors, "Entertainment" and "Indoor Facility" have a negative impact on customer satisfaction, while the other two factors "Location" and "Outdoor Facility" showed a positive impact on customer satisfaction.

6.2. Theoretical Implications

This study shows the academic implications of extending the semantic network analysis application area. The casino hospitality business has the chance to learn about the properties of online reviews, in order to break into this market, as well as to research the most effective marketing techniques that might provide them a competitive advantage. For

Sustainability **2022**, 14, 5846 14 of 18

pursuing high satisfaction outcomes, the hospitality business needs to take these factors of "location", "outdoor facilities", "indoor facilities", and "entertainment" into consideration. Of these, the "Outdoor Facilities" factor showed high influential characteristics. Utilization of these factors would help to investigate customer satisfaction. In previous studies, some scholars also mentioned the importance of these aspects for improving hotel attractiveness, for example, the location of a hotel has great influence on its success [71]; outdoor and indoor facilities have the function to increase customer satisfaction and revisit intention [72]. A study of Macau casino resorts shows that customer satisfaction relates with customer delight, while our findings suggest other aspects that would influence customer satisfaction [73]. A study of the U.S. casino market showed that service quality has a positive influence on overall customer satisfaction and loyalty, while the results of our study showed that in Busan casino hotels, service is not that important to the overall customer satisfaction, as customers are more concerned about other aspects that a hotel could provide [74]. Similarly, according to Rather and Camilleri, the consumer-perceived service quality and value influence loyalty in upscale-hotel marketing [75]. Positive emotion also showed a positive impact on customer satisfaction; the study showed more from the psychological side of customers, since it is a very important way to test customer satisfaction [76]. The result of our study has contributed to the confirmation of what kind of factors would influence customer satisfaction.

6.3. Practical Implications

For practical implications, hotel management teams could utilize this study as a reference when making marketing strategies and tactics, while customer reviews are a valuable source of information that can assist casino hotels in improving their services and creating promotions, with regard to profits [77]. Online reviews analysis could be used to make a credible satisfaction assessment [78]. Casino hotels might have similar advantages and problems worldwide, thus, the results from this study could also be a warning for other casino hotels in other areas, to notice what aspects should be improved would be helpful for attracting more customers in the long run. A study showed that online reviews from TripAdvisor could provide a meaningful marketing strategy for hotel managers [79]. The case of Canary Islands hotels indicated the role of online reviews on determining customer satisfaction [80]. Another previous study also showed that ratings of online reviews have a positive relationship with the intention to recommend [81]. Furthermore, the casino hotel sector may utilize this strategy to examine their competitors' customer reviews, in order to compare customer satisfaction. The feedback may be utilized to create long-term strategic marketing decisions in relation to rivals.

6.4. Limitations and Future Directions

It should be noted, however, that this study has some limitations regarding data collection and analysis. First of all, the collected data were limited, as they only included data from two casinos in the Busan district as a sample. Future research should source the data of online reviews from more casino hotels, both domestically and internationally, for a better generalization of the findings. Second, the extracted texts were analyzed based on the frequency rather than the meaning of words, thus, it would be an obstacle to understanding any additional meanings of the texts. Further positive and negative analysis, along with a sentiment analysis, should be conducted. A stronger strategy could, therefore, be implemented for the casino hotel industry, thereby creating a more powerful stance [82]. Moreover, taking into account their era backgrounds, customers as well as hotel casinos had their own unique restrictions. To explore the customer reviewers' change over time, future study should start with a larger sample size and a longer data period. Limitations of the results analysis part are the reliability and low R-squared problems; the Cronbach's alpha was 0.690 for all the measurements, but, for each factor, the Cronbach's alpha value was not good enough for each of them; and, for the low R-squared problem, there are even previous studies that encounter the same issue, but the low R-squared

Sustainability **2022**, 14, 5846 15 of 18

problem does lower the explanation power of our measurements regarding satisfaction, so further research should be more cautious about these problems, to explore a better solution to decrease the negative influence on the overall results. One other future research direction could include customer satisfaction of the online booking system of the casino hotels, since a highly functional website could improve customer satisfaction and repurchase intention [83]. Another direction of customer research could focus on their physiological aspects, for instance, how the congruity and social identity of a customer impacts their hotel-selection decision and builds a long-term relationship with a hotel [75]. Furthermore, it is necessary to explore the utility of sentimental analysis of online reviews on different industries [11,84].

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Sustainability **2022**, 14, 5846 18 of 18

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