

# A Qualitative Model for Customer Behavioral Decisions and Satisfaction in the Hospitality Industry

by

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## Abstract

It is increasingly important for organizations in the hospitality industry to utilize qualitative, customer-generated content on social media to gain insight into guest perceptions, intentions, and outcomes. On the basis of the service quality model, this research sought to investigate the discrepancy between expected and perceived service. Guest reviews from online review websites like Yelp and TripAdvisor were randomly sampled for 16 hotels across the United States of America. For each hotel, 20 written comments and their corresponding numeric ratings were coded and analyzed using Tropes. We found linkages to both average and positive experiences for staff and linkages to average, positive, and negative experiences for service. Guest experience was linked to staff and service, as well as room, location, meal, and time. Critiques of service, rooms, cleanliness and restaurants were strongly related to staff. Directions for future research, including the utility of crowd-sourced word dictionaries to aid hospitality research are discussed.

**Keywords:** Hospitality, Social Media, WOM, eWOM

## Industry

Social media is an important source of information and feedback on potential products and services consumers seek to learn about and potentially purchase. The rapid growth in social media adoption and usage has led consumers to become more discerning about their buying choices, as there is a plethora of user-generated content available online 24 hours a day/seven days per week for anyone to use and make more informed purchasing decisions. Among customers' motivations to share their experiences with products and services, the need to help others and prevent them from buying inadequate products or services weighted heavily in a study of Scandinavian tourists (Munar & Jacobsen, 2014). These altruistic and community-focused intentions help the spread of meaningful consumer-centric information through word-of-mouth (WOM), or through social media platforms with electronic word-of-mouth (eWOM).

WOM and eWOM (both positive and negative), whether in verbal or written form, can profoundly affect financial outcomes for companies. In a study examining book reviews on Amazon.com and Barnesandnoble.com, Chevalier and Mayzlin (2006) found that consumers rely on customer reviews more than sales statistics. Single star reviews have more of an impact than five-star reviews, and

improvements in a book's reviews lead to an increase in sales for that book. Additionally, Zhang, Ye, Law, and Li (2010) found that for every 10% increase in traveler review ratings, online bookings increased 5%. These findings underscore the importance of eWOM for marketing and business outcomes, especially for companies in the hospitality industry.

Consumers have a variety of social media platforms to share information about purchases and patronage. In addition to popular social networking websites such as Facebook and Twitter, there are a number of virtual communities (e.g., [igougo.com](http://igougo.com) and [lonelyplanet.com](http://lonelyplanet.com)), customer review sites (e.g., [zagat.com](http://zagat.com) and [tripadvisor.com](http://tripadvisor.com)), and blog sites ([tumblr.com](http://tumblr.com) and [blogspot.com](http://blogspot.com)) available for anyone to share their experiences in the context of tourism and hospitality. Using carefully defined search terms, Xiang and Gretzel (2010) found that 11% of all Google search results for popular destinations and travel-related keywords were social media websites, and that number has likely grown since the study was conducted.

This freely available information is not limited in usage to help inform purchases, however, and businesses in the hospitality industry can easily capture eWOM contained in social media posts to gain insight into guest perceptions, experiences, and other relevant business

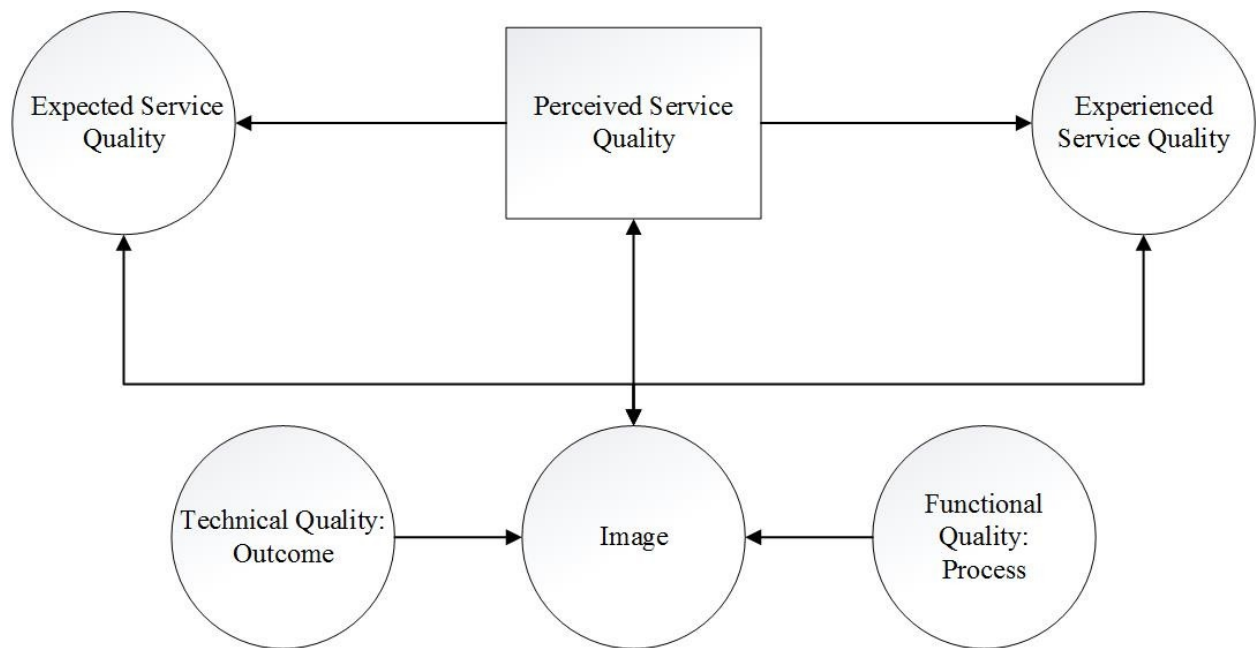
outcomes. It has become increasingly important for all industries to focus on customer satisfaction (Ramsaran-Fowdar, 2008). Previous consumer research has long given credence to the notion that meeting or exceeding expectations consistently leads to increased profits and sustained loyalty/repurchase intentions (Cronin & Taylor, 1992). With the rise of the 'sharing economy,' championed by companies such as Airbnb, it is important for businesses within the hospitality industry to maintain a competitive advantage in the face of any lost market share (Zervas, Proserpio, & Byers, 2017).

Social media gives consumers the ability to share information with countless other consumers quickly and easily, but it also provides organizations with an important platform to engage consumers and shape discussions in a manner consistent with the mission and performance goals of the organization (Mangold & Faulds, 2009). Kim, Lim, and Brymer (2015) demonstrated this effect. They found that overall ratings of an international hotel, as well as the hotel's response rate to negative comments, were positively linked to Average Daily Rate (ADR) and Revenue Per Available Room (RevPAR). These findings directly link company social media engagement with positive business outcomes and provide support for the importance of companies actively monitoring and engaging their customers on social media.

Much research has been conducted on the service quality model proposed by Grönroos (1984). The model proposes that technical and functional quality impact the brand image of a company. This image, in turn, affects the perception of service quality. The key issue being investigated in the present research is the discrepancy between expected and perceived service. Prior research has focused on interventions involving quantitative data while neglecting to explore the plethora of existing qualitative data consisting of user generated comments from social media. Utilizing this rich qualitative data set can allow researchers to gain insight into understanding the process by which expectations and perceptions are disconnected among customers.

Figure 1

## Service Quality Model



The rich, user-generated content shared on social media platforms can be analyzed in a number of ways and utilized for different purposes. Text mining and qualitative analysis are excellent tools for uncovering meaningful information from unstructured textual data. He, Zha, and Li (2013) used text mining to analyze social media comments posted on Facebook and Twitter pages of three of the largest pizza chains in the United States. The data were used to monitor user engagements, establish benchmarks, compare metrics, and explore consumer sentiments between companies and across both social media platforms. These metrics can be used to understand the effectiveness

of marketing campaigns, product launches, policy changes, and the competitive environment as well as other useful company objectives.

The present research seeks to replicate and extend the work of Islam, Chetta, Kozikowski, and Misner (2016) by using qualitative analytic techniques to study service experiences, service failures, word-of-mouth reviews, service recovery, and their impact on outcomes including loyalty, satisfaction, and repatronage (Chetta, 2014; Kozikowski, 2012) in the hospitality industry. Specifically, the present study aims to (1) determine the factors exerting the greatest influence on guest perceptions, intentions, and outcomes, and (2) create a related model that examines the relationships proposed.

### **Method**

With a service quality and outcome focus, the researchers determined that a qualitative methodology using quantitative ratings as categories was the optimal approach. The research team extracted guest reviews from online review websites such as Yelp and TripAdvisor. A random sample of 16 hotels from across the United States was selected for the analysis. The United States was chosen as the nation of interest in this study to maintain commonality across hotel ratings in terms of language and cultural attitudes. For each hotel, a random sample of 20 reviews was collected along with the written comments for a total of

320 reviews and ratings. The comments expressed both positive and negative views and were extracted along with the numeric ratings accompanying the review of that hotel property.

Numeric ratings from the social media platforms were recoded as either positive [5], average [3-4] or negative [average ratings < 3], and were inserted at the end of every user comment and used in conducting the qualitative analyses.

## Results

Analyses were carried out on the guest reviews and related data using Tropes, software designed for semantic classification, keyword extraction, linguistic and qualitative text analyses. There were linkages to both average and positive experiences for “staff” and linkages to all three categories of reviews (positive, average, and negative) for “service” [Table 1]. While guest experience was linked to staff and service, there were also strong relationships present with terms such as room, location, meal, and time [including day, season, night, and year]. Critiques of service, rooms, cleanliness, and restaurants were strongly related to staff members. This language matches the expected factors comprising prior customer service models (Cronin, Brady, & Hult, 2000; Maxham and Netemeyer, 2002; Smith, Bolton, and Wagner, 1999).



We utilized tropes for the analyses given its unique ability to generate a graphic of actors and describe language style. Qualitative analyses were conducted assessing the writing style and service experiences of customers. The writing style was mostly enunciative. Guests expressed notions of doubt very often, with the majority of doubt related to the room quality, costs, or amenities. The top terms (out of the 26939 words) included time (450), food (175), transport (169), organization (119), location (117), and staff (113). We also found high occurrences of words such as furnishings (105), money (103), service (94), beverage (87), and restaurant (84) in relation to the guest experiences. While many relationships existed, those noted have the strongest association with the expected factors comprising the model of guest satisfaction and the creation of measures to assess behavioral intentions and experiences.

A graph of actors was created to illustrate the strength of the relationships between the terms in the text. This graph shows closely related references (proper nouns, common nouns, trademarks, etc.) that often appear in the text to provide insights about how words are grouped together. This essentially allows us to understand the nature of the service conversation. As noted in Figure 2, when looking at the language most strongly associated with “high” guest evaluations, the top correlates were staff, service, location, room, beach, view, hotel,

place, resort, meal, day, and night. As shown in Figure 3, when focused on “average” guest evaluations, the top correlates included staff, service, location, view, meal, room, hotel, place, restaurant, and time [day, night]. As shown in Figure 4, for “low” evaluations, the strongest direct relationships were exhibited with room and hotel, though less direct and frequent relationships existed with service, staff, location, view, restaurant, meal, money, and time.

While not unexpected, these results support the concept that particular components of a guest’s experience have the strongest influence on their evaluations. However, there is not one specific aspect that can create a positive experience, nor one that leads to a negative assessment. This finding lends support to customer service models in the literature (Qin & Prybutok, 2013; Carman, 2000).

## **Discussion**

The objective of the present study was to determine the factors exerting the greatest influence on guest perceptions (both positive and negative), intentions, and outcomes, and to create a related model. Overall, we found support that the language used is a key indicator of overall customer experience. Our results show that positive guest experience was associated with staff, service, location, room, beach, view, hotel, place, resort, meal, and time. These results are not

surprising as the quality of the staff, service and the location of the establishment have been shown in previous research to impact customer perceptions (ref). Conversely, negative perceptions were related to guests' notions of doubt very often, with the majority of doubt related to the room quality, costs, or amenities. The top terms included time, food, transport, organization, location, and staff.

Further research must be conducted to garner additional support for the factors exerting influence on guest perceptions, as well as hone the model defining the guest-hospitality firm relationship.

These preliminary findings dictate that a deeper analysis should be performed. Modification of the software-generated list of associated terms is a necessary and invaluable next step for more insightful text analyses. Future research should focus on creating crowd-sourced word dictionaries such that a user-defined model of the relationships among terms in a text can provide a framework for separating out information of particular interest and supporting research hypotheses.

Future research should also focus on working with hospitality and service firms to generate a user-friendly dictionary for measuring service quality perceptions across social media platforms. While the present research has provided a foundation for initial linkages between

customer experiences and customer comments, further research is needed to understand the driving factors behind consumer decisions.

In conclusion, while the present research is exploratory, it does extend previous research into the customer service quality model. The results indicate an inherent need in the hospitality research space to focus on not just quantitative measures but also qualitative by which service failures can be identified and rectified.

## References

- Carman, J. M. (2000). Patient perceptions of service quality: combining the dimensions. *Journal of Services Marketing*, 14(4), 337-352. Retrieved from <http://www.emeraldinsight.com/doi/abs/10.1108/08876040010334565>
- Chetta, M. H. (2014). Impact of Loyalty Program Membership on Satisfaction, Loyalty Intentions, and Word-of-Mouth Intentions Following a Service Failure. Hofstra University. Retrieved from <https://search.proquest.com/openview/b42785f9921cf64a7ee9e014f6d934f4>
- Chevalier, J. A., & Mayzlin, D. (2006). The Effect of Word of Mouth on Sales: Online Book Reviews. *Journal of Marketing Research*, 43(3), 345-354. doi:10.1509/jmkr.43.3.345 Retrieved from <http://journals.ama.org/doi/abs/10.1509/jmkr.43.3.345>
- Cronin, J. J., Brady, M. K., & Hult, G. T. M. (2000). Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service environments. *Journal of Retailing*, 76(2), 193-218. doi:[http://doi.org/10.1016/S0022-4359\(00\)00028-2](http://doi.org/10.1016/S0022-4359(00)00028-2) Retrieved from [https://www.researchgate.net/publication/222540733\\_Assessing\\_the\\_effects\\_of\\_quality\\_value\\_and\\_customer\\_satisfaction\\_on\\_consumer\\_behavioral\\_intentions\\_in\\_service\\_environments](https://www.researchgate.net/publication/222540733_Assessing_the_effects_of_quality_value_and_customer_satisfaction_on_consumer_behavioral_intentions_in_service_environments)
- Cronin, J. J., & Taylor, S. A. (1992). Measuring Service Quality: A Reexamination and Extension. *Journal of Marketing*, 56(3), 55-68. Retrieved from <https://search-proquest-com.lb-proxy8.touro.edu/docview/227766235?accountid=14375>
- Grönroos, C. (1984). A service quality model and its marketing implications. *European Journal of Marketing*, 18(4), 36-44. doi:<http://doi.org/10.1108/EUM0000000004784> Retrieved from <http://www.emeraldinsight.com/doi/abs/10.1108/EUM0000000004784>
- He, W., Zha, S., & Li, L. (2013). Social media competitive analysis and text mining: A case study in the pizza industry. *International Journal of Information Management*, 33(3), 464-472. doi:<http://doi.org/10.1016/j.ijinfomgt.2013.01.001> Retrieved from

- [https://www.researchgate.net/publication/257103444\\_Social\\_Media\\_Competitive\\_Analysis\\_and\\_Text\\_mining\\_A\\_Case\\_Study\\_in\\_the\\_Pizza\\_Industry](https://www.researchgate.net/publication/257103444_Social_Media_Competitive_Analysis_and_Text_mining_A_Case_Study_in_the_Pizza_Industry)
- Islam, S., Chetta, M., Kozikowski, A., & Misner, S. (2016). Speaking of Urgent Care Centers: Language Matters. *Journal of Management and Innovation*, 2(1). doi:<http://doi.org/10.18059/jmi.v2i1.14> Retrieved from <http://jmi.mercy.edu/index.php/JMI/article/view/14>
- Kim, W. G., Lim, H., & Brymer, R. A. (2015). The effectiveness of managing social media on hotel performance. *International Journal of Hospitality Management*, 44, 165–171. doi:<http://doi.org/10.1016/j.ijhm.2014.10.014> Retrieved from <http://www.sciencedirect.com/science/article/pii/S0278431914001704>
- Kozikowski, A. (2012). The Interaction between service quality and word-of-mouth on service quality perceptions, satisfaction, loyalty, value and trust. Hofstra University. Retrieved from <https://search.proquest.com/openview/d38eab6f990d2c789f2248c7a04eccc1/1?pq-origsite=gscholar&cbl=18750&diss=y>
- Mangold, W. G., & Faulds, D. J. (2009). Social media: The new hybrid element of the promotion mix. *Business Horizons*, 52(4), 357–365. doi:<http://doi.org/10.1016/j.bushor.2009.03.002> Retrieved from <http://www.sciencedirect.com/science/article/pii/S0007681309000329>
- Maxham, J. G., & Netemeyer, R. G. (2002). A Longitudinal Study of Complaining Customers' Evaluations of Multiple Service Failures and Recovery Efforts. *Journal of Marketing*, 66(4), 57–71. Retrieved from <https://search-proquest-com.lb-proxy8.touro.edu/docview/227753545?accountid=14375>
- Munar, A. M., & Jacobsen, J. K. S. (2014). Motivations for sharing tourism experiences through social media. *Tourism Management*, 43, 46–54. doi:<http://doi.org/10.1016/j.tourman.2014.01.012> Retrieved from <http://www.sciencedirect.com/science/article/pii/S0261517714000132>
- Qin, H., & Prybutok, V. R. (2013). A quantitative model for patient behavioral decisions in the urgent care industry. *Socio-Economic*

- Planning Sciences, 47(1), 50-64.  
doi:<http://doi.org/10.1016/j.seps.2012.08.003> Retrieved from  
<http://www.sciencedirect.com/science/article/pii/S0038012112000390>
- Ramsaran-Fowdar, R. R. (2008). The relative importance of service dimensions in a healthcare setting. *International Journal of Health Care Quality Assurance*, 21(1), 104-124.  
doi:<https://doi.org/10.1108/09526860810841192> Retrieved from  
<https://www.ncbi.nlm.nih.gov/pubmed/18437943>
- Smith, A. K., Bolton, R. N., & Wagner, J. (1999). A model of customer satisfaction with service encounters involving failure and recovery. *Journal of Marketing Research*, 36(3), 356-372.  
Retrieved from <https://search-proquest-com.lb-proxy8.touro.edu/docview/235214061?accountid=14375>
- Xiang, Z., & Gretzel, U. (2010). Role of social media in online travel information search. *Tourism Management*, 31(2), 179-188.  
doi:<http://doi.org/10.1016/j.tourman.2009.02.016> Retrieved from  
<http://www.sciencedirect.com/science/article/pii/S0261517709000387>
- Zervas, G., Proserpio, D., & Byers, J. W. (2017). The Rise of the Sharing Economy: Estimating the Impact of Airbnb on the Hotel Industry. *Journal of Marketing Research*. doi:<http://10.1509/jmr.15.0204>  
Retrieved from  
<http://journals.ama.org/doi/abs/10.1509/jmr.15.0204>
- Zhang, Z., Ye, Q., Law, R., & Li, Y. (2010). The impact of e-word-of-mouth on the online popularity of restaurants: A comparison of consumer reviews and editor reviews. *International Journal of Hospitality Management*, 29(4), 694-700.  
doi:<http://doi.org/10.1016/j.ijhm.2010.02.002> Retrieved from  
<http://www.sciencedirect.com/science/article/pii/S0278431910000198>

**Table 1**

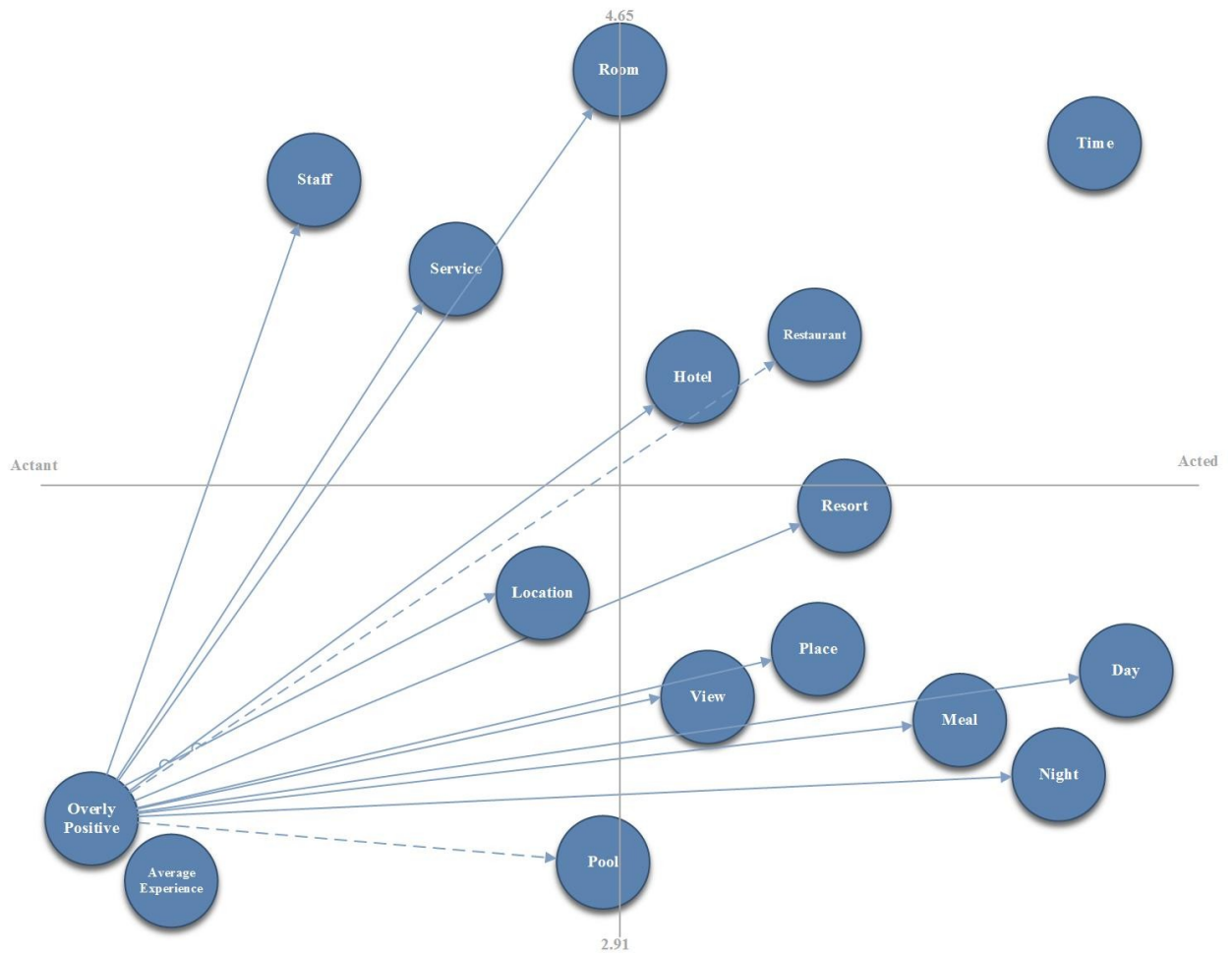
*Words most strongly and frequently associated with review type*



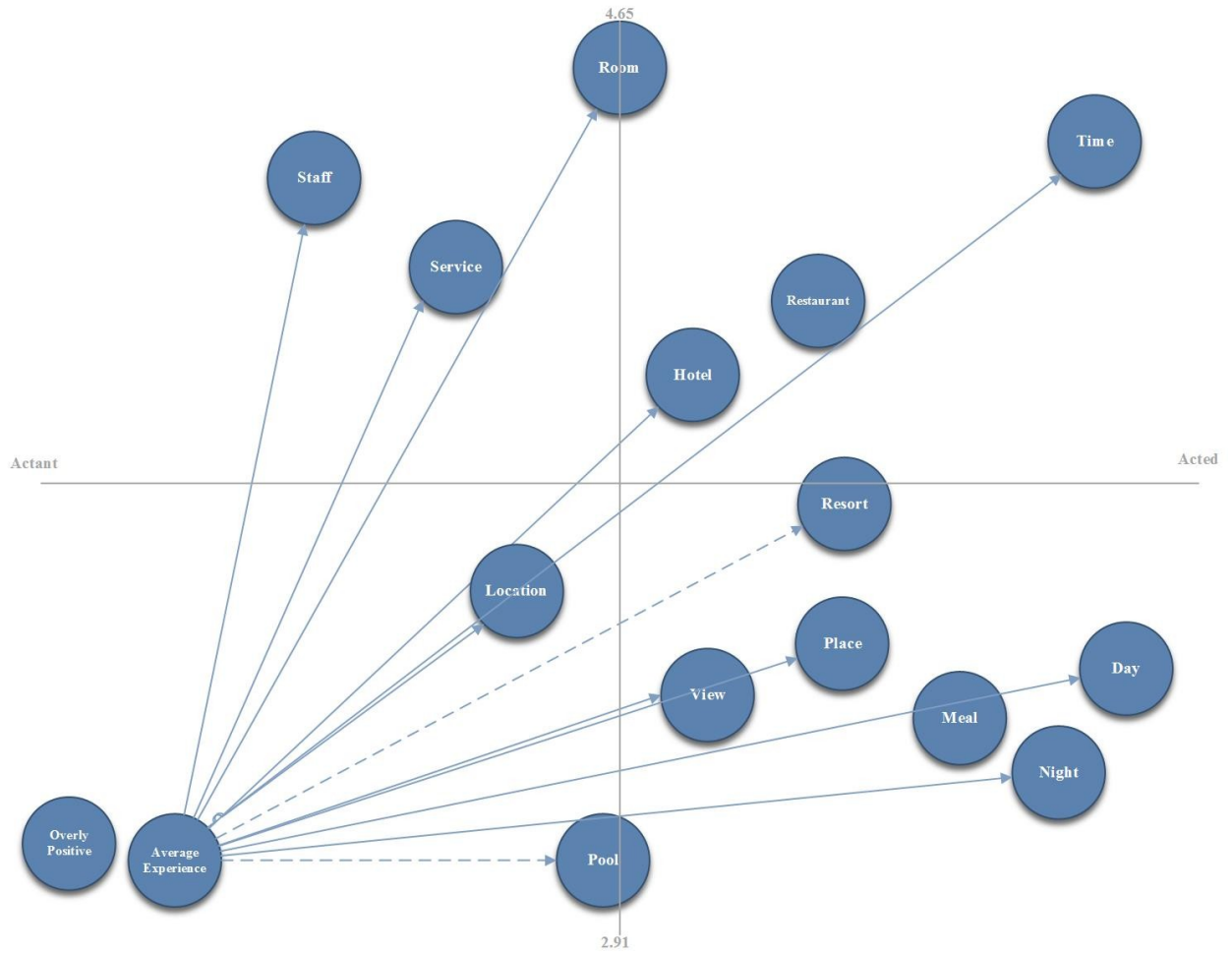
Staff	Staff	Room
Service	Service	Hotel
Location	Location	Day
Room	View	Weaker Relationships with:
Beach	Meal	Service
View	Room	Staff
Hotel	Hotel	Location
Place	Place	Restaurant
Resort	Restaurant	Meal
Meal	Time (Day, Night)	Money
Day		Time
Night		



**Figure 2**  
*Graph of actors: Relationship of “overly positive reviews” to guest evaluation terms of interest*



**Figure 3**  
 Graph of actors: Relationship of “average reviews” to guest evaluation terms of interest



**Figure 4**  
 Graph of actors: Relationship of “negative reviews” to guest evaluation terms of interest

