

Repositório ISCTE-IUL

Deposited in *Repositório ISCTE-IUL*:

2019-05-06

Deposited version:

Post-print

Peer-review status of attached file:

Peer-reviewed

Citation for published item:

Pina, L. S., Loureiro, S. M. C., Rita, P., Sarmento, E. M., Bilro, R. G. & Guerreiro, J. (2019). Analysing consumer-brand engagement through appreciative listening on social network platforms. *Journal of Promotion Management*. 25 (3), 304-313

Further information on publisher's website:

10.1080/10496491.2019.1557805

Publisher's copyright statement:

This is the peer reviewed version of the following article: Pina, L. S., Loureiro, S. M. C., Rita, P., Sarmento, E. M., Bilro, R. G. & Guerreiro, J. (2019). Analysing consumer-brand engagement through appreciative listening on social network platforms. *Journal of Promotion Management*. 25 (3), 304-313, which has been published in final form at <https://dx.doi.org/10.1080/10496491.2019.1557805>. This article may be used for non-commercial purposes in accordance with the Publisher's Terms and Conditions for self-archiving.

Use policy

Creative Commons CC BY 4.0

The full-text may be used and/or reproduced, and given to third parties in any format or medium, without prior permission or charge, for personal research or study, educational, or not-for-profit purposes provided that:

- a full bibliographic reference is made to the original source
- a link is made to the metadata record in the Repository
- the full-text is not changed in any way

The full-text must not be sold in any format or medium without the formal permission of the copyright holders.

To cite this article: Lúcia Silveira Pina, Sandra Maria Correia Loureiro, Paulo Rita, Eduardo Moraes Sarmiento, Ricardo G. Bilro & João Guerreiro (2019): Analysing Consumer-Brand Engagement Through Appreciative Listening on Social Network Platforms, *Journal of Promotion Management*, DOI: 10.1080/10496491.2019.1557805

Analysing Consumer-Brand Engagement Through Appreciative Listening On Social Network Platforms

Lúcia Silveira Pina, Instituto Universitário de Lisboa (ISCTE-IUL), Portugal,
lidia_pina@iscte-iul.pt

Sandra Maria Correia Loureiro, Instituto Universitário de Lisboa (ISCTE-IUL),
Business Research Unit (BRU/UNIDE) and SOCIUS, Portugal,
sandramloureiro@netcabo.pt

Paulo Rita, NOVA Information Management School (NOVA IMS), Universidade Nova
de Lisboa, Portugal, prita@novaims.unl.pt

Eduardo Moraes Sarmiento, University Lusófona and ISEG-University of Lisbon,
Portugal, emoraessarmiento@gmail.com

Ricardo G. Bilro, Instituto Universitário de Lisboa (ISCTE-IUL), Business Research
Unit (BRU/UNIDE), Portugal, bilro.ricardo@gmail.com

João Guerreiro, Instituto Universitário de Lisboa (ISCTE-IUL), Business Research Unit
(BRU/UNIDE), Portugal, joao.guerreiro@iscte-iul.pt

Abstract

The evolution of technology changed the external environment surrounding businesses creating a plethora of new opportunities and challenges. Particularly, social network platforms became attractive to companies due to their interactive nature as they increase consumers' and brand opportunities for developing long-term relationships and engagement. In this sense, the main goal of this paper is to understand whether appreciative listening can contribute to the improvement of consumer-brand engagement using these platforms. We develop two studies based on Starbuck's facebook page whereby findings from study one are used as inputs to study two. Results demonstrate that appreciative listening can actually improve consumer-brand engagement.

Keywords: Consumer-brand relationship, Social networks, Online consumer brand engagement, Appreciative listening

Introduction

Social network platforms have been responsible for changing the elementary rules of communication, especially between companies and their audiences (Loureiro & Ribeiro, 2014; Maggiani, 2012; Ott, Vafeiadis, Kumble, & Waddell, 2016), which decrease marketers' power for promoting products and increase the power held by consumers (Gautman & Sharma, 2017; Shen & Bissell, 2017). Therefore, organizations start to recognize social network platforms as powerful communication channels where they can establish relationships with their consumers and listening to what they have to say. Organizations need to expand and reinforce their online presence as an active relationship with consumers may lead to involvement, engagement and co-creation (Chen & Sockel, 2002; Arora & Sanni, 2018), which in turn might lead to the increase of brand value (Bilro, Loureiro, & Ali, 2018; Jaakkola & Alexander, 2014).

Consumers are becoming more demanding when choosing a brand with whom to establish relationships with (Bruning & Hatfield, 2002; Thrassou & Vrontis, 2009; Brodie, Hollebeek, Jurić, & Ilić, 2011; Langaro, Rita & Salgueiro, 2018). Consumers do not want brands saying their target is important, if those same brands do not show they care about their consumers in the end (Dodoo, 2017). Instead, consumers prefer brands that allow them to contribute and assist in their decision-making process, that is, brands must start using active listening as a way of obtaining consumer insights to use as inputs in their communication and marketing strategies (Papasolomou & Malanthiou, 2012; Shen & Bissell, 2013).

The main goal of this paper is to ascertain whether the active listening practice can contribute to the improvement of the relationship maintained between consumers and brands. In that sense, the practice of active listening linked with online consumer brand engagement can present a new solution or alternative to the actual market saturation in terms of business opportunities. So, the specific research question is: Can the practice of appreciative or active listening improve consumer-brand relationship and engagement?

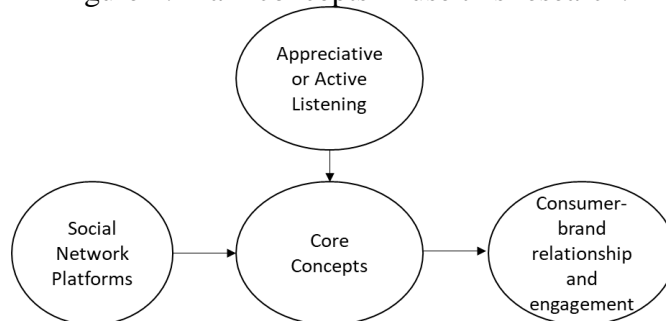
This paper is organized as follows: firstly, we present the theoretical background, where each relevant concept embedded in the paper is discussed in detail. Secondly, we establish the used methodology, followed by an extensive and meticulous analysis to the findings extracted from both studies performed during the methodological process (Study 1, and Study 2). Finally, we present the conclusions and managerial implications.

Theoretical Background

Consumer-brand relationships (CBR) started to attract interest and acquire relevance in the late nineties of the 20th century. Since then, several types of organizations started to become increasingly interested in acquiring knowledge about the way consumers connect with brands and to understand the reason why some brands are preferred and loved over others (Thrassou & Vrontis, 2009). As a result, organizations started to adopt consumer-centric strategies. First, to learn more about consumers’ behavior (Loureiro, 2013; Coelho, Rita & Santos, 2018) and also to ensure an engaged consumer base (Dessart *et al.*, 2015). Part of the engagement importance can be explained by the fact that companies nowadays live in a highly competitive world, which make them search for new business opportunities to transform them into competitive advantages that allow them to be successful in the market.

Social network platforms are another paradigm that need to be considered in this equation. Thanks to this phenomenon, the communication model became multidimensional, allowing interactions in several ways, including consumer-to-business (Loureiro & Gomes, 2016). In this sense, this research is mainly focused on distinct concepts, as illustrated in Figure 1. Specifically, we focus on appreciative or active listening (AL), social network platforms, and consumer-brand relationship and engagement.

Figure 1. Main concepts in use this research.



Each of the three main concepts presented above has different origins and features, which implies the study of three distinct marketing fields: relationship marketing, marketing communications and consumer behavior.

The literature review reveals that Active Listening is present in several fields such as psychology, nursing, advocacy and communication, among others, and has helped those fields to overcome several difficulties. In nursing, active listening is used to improve the efficiency of patient diagnosis (Heslip, 2015), while in communication it is used as a way of improving the number of agreements in a problem-solving context (Fischer-Lokou *et al.*, 2016). Besides the examples previously stated, there are many others which illustrate the advantages associated with the use of this practice, so it seems interesting to investigate whether the contributions, directly linked with this technique, can also be extended to marketing. However, studies that apply active listening to marketing are scarce. Thus, the present paper intends to address this research gap, by showing that the practice of active listening can indeed be present in the online field and that this same concept can act as a determinant of the online brand engagement.

In addition, a theoretical model capable of measuring the online engagement is also designed (Figure 2) based on the adaptation of seven concepts extracted from the literature, as shown in Table 1.

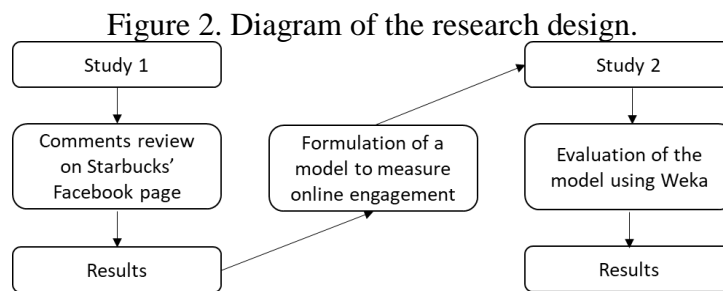
Table 1. Concepts used to develop the engagement model.

Concept	Definition	Adapted from:
Conversation	Talk maintained between two or more parties involved, where ideas, feelings and thoughts are presented, questions and answers are displayed, and information is exchanged.	(Cambridge Dictionary, 2017a)
Activation	Consumer's level of energy, effort and time spent on a brand along with the willingness to stay with that same brand, instead of changing to another one.	(Hollebeek, Glynn, & Brodie, 2014)
Affection	Consumer's degree of positive brand-related affect can be described as the level of positivity associated with the consumer's emotional state (feeling happy, proud, delighted and/or enthusiastic), which is triggered by brand's actions or features (product launches, promotions, or others).	(Hollebeek et al., 2014)
Negative Affection	Consumer's degree of negative brand-related affect can be described by the level of negativity associated with the consumer's emotional state (feeling quite sad, disappointed, angry or even feeling hateful), which is triggered by brand's actions or features, such as product launches, promotions, among others.	(Hollebeek et al., 2014)
Cognitive Processing	Consumer's level of brand-related thought processing and elaboration embraces a wide range of actions taken by consumers, such as think about the brand, use the brand, show interest in learning more about the brand or be absorbed by it, in such a way that the consumer forgets anything else.	(Hollebeek et al., 2014)
Interaction	The process in which consumers interchange ideas, thoughts and feelings about the focus of engagement (the brand), answering to other consumers' comments, correcting them or adding information or facts to the discussion, with the goal of protecting the brand.	(Vivek, 2009)
Love	The concept goes beyond the ardent affection which consumers can feel regarding a brand. This type of love can be obtained through the combination between emotion and passion and can be described by the consumers' ability to feel a deep affection towards one brand or its actions.	(Baldus, Voorhees, & Calantone, 2015; Cambridge Dictionary, 2017b)

Online Consumer Brand Engagement	Psychological state that occurs by virtue of interactive, co-creative experiences with a focal agent or object that makes consumers develop activities such as liking or commenting. This state is responsible for the maintenance of the existing commitment and trust between both parties involved, and consequently leads to the perpetuation of the consumer' engagement state towards that same brand.	(Brodie, Hollebeck, Jurić, & Ilić, 2011; Kabadayi and Price, 2014; Sashi, 2012)
---	--	---

Methodology

The research presented in this paper comprises two complementary studies. The first study (Study 1) focuses on active listening and aims to discover whether this practice can, in fact, be present in the online field, more specifically on Facebook (see Figure 2), since the definitions presented in the literature suggest that this practice requires interaction (Comstock, 2015), and consequently a face-to-face contact between the involved parties.



An analysis of consumers' comments was done to extract emotions and engagement markers present in the interaction maintained between consumers and the chosen brand. Markers in the comments include specific language types, punctuation patterns and visual symbols (emotions and emojis). In order to discover what every clue might be transmitting to the reader, this analysis followed the Szurawitzki (2012) and Walther and D'Addario (2001) method to ensure the reliability of the achieved results. The use of this method is justified once it provides ten useful indicators on how to analyse Facebook comments and guides the analysis of message types (mixed or pure messages) and emotions' interpretation, thus making the analysis more robust.

Facebook was the chosen platform to carry out the review comments (Study 1), once it represents a solid social network which is used by many brands worldwide as a product disclosure tool, and as a mean of approaching and strengthening the existing relationships with consumers. In order to maintain Facebook dynamic, all comments were arranged by date (month-day-year) and time of posting, exhibiting a regular conversational structure between the two involved parties. Moreover, the priority was given to comments which presented emotions and visual symbols, such as punctuation as well as answers by the brand (in this case, Starbucks). Furthermore, the brand-consumer conversation dynamic was maintained whenever possible, until the comments end or until they started interfering with other conversation considered more relevant to the review. Finally, in order to preserve the integrity and privacy of consumers, all names were replaced by fictitious ones to maintain ethics throughout the research (Malhotra, 2010), whereas the gender was kept intact to truly represent reality.

In addition to the comments review, a theoretical model capable of measuring the online engagement was also created (see figure 2) based on the adaptation of seven concepts extracted from the scientific literature. Therefore, a significant number of comments were analysed according to the seven attributes previously defined and the information included in each comment was manually classified, by levels, in alignment with each attribute' scale. This process used Starbucks Facebook page once again, to

maintain consistency with Study 1 and aimed at discovering the numerical level of engagement included in each online comment.

Thereafter, the information was converted into a CSV format file and then to ARFF (Attribute-Relation File Format) (Waikato, 2017a), in order to generate a dataset compatible with the data mining Weka software (Waikato, 2017b). Weka was used to evaluate the accuracy of the model developed at the end of Study 1 (see Figure 2). For that purpose, four distinct machine learning algorithms were chosen amongst the available ones: Zero R, Naïve Bayes, IBk and J48.

In this second study the engagement model was evaluated through Weka software and the four mentioned available machine learning algorithms (= classifiers). Hence, the model levels of accuracy and noise were evaluated since these are two critical features in determining its quality (Witten *et al.*, 2011). Study 2 was organized into two distinct parts: I- Dataset Composition - where the total number of comments analysed as well as the numbers included in each attribute' levels were presented (conversation, activation, affection, negative affection, cognitive processing, consumer interaction, love, engagement), and part II - Applied Tests (classifiers) - where the results extracted in each test were exhibited, along with some relevant conclusions.

Results

Study 1 analyses three specific features of online comments: text, punctuation and visual clues (emotions and emojis) based on the ten indicators of the analysis model provided by Szurawitzki (2012), precisely developed to analyse the language in online contexts, namely in social networking sites. The model provided by Szurawitzki (2012) was only tested in a linear conversation, in which the author analyzed seven interactions between two individuals through his personal Facebook account.

Study 1 went further since it applied the model in a different context, using a significant higher number of comments (60), which were elaborated by a broad number of distinct individuals, thus presenting more robustness in the findings. Additionally, Study 1 unveiled which were the visual symbols most often used by Starbucks' target on Facebook, within the two distinct types considered (emotions - facial expressions and emojis- others) revealing that: (i) smile was the most used emotion, always linked with positive feelings, in agreement to what was previously argued by Walter and D'Addario (2001); (ii) the heart emoji was as commonly used as the smile, highlighting the importance that this type of visual cues (emojis) already have on online communications.

Study 1 demonstrates that it is possible to capture emotions in online fields through the analysis and compilation of the meanings provided by text, punctuation and visual cues and it provides evidences to consider that active listening practice is present in Facebook. As such, the conclusion drawn in Study 1 allows to answer to sub-question 1 ("Can the practice of active listening be present in the online field – Facebook?") affirmatively, given the depth and robustness of the findings. Simultaneously, Study 1 presents a relevant discovery regarding active listening, since it shows that this technique does not require face-to-face interaction to be successful or even to discover which emotions are conveyed by someone during his/her speech, in contrast to what was stated by several authors in previous literature (e.g., Rogers (1980), Barkai (1984), Levitt (2001), Robertson (2005), Comstock (2015), Heslip (2015) and Fischer-Lokou *et al.*, (2016)) which addressed active listening as being a purely physical practice. Lastly, Study 1 goes further than previous studies (e.g., Bauer & Figl, 2008), demonstrating that besides being important to initial interactions, active listening is equally important to improve existing relationships as it helps strengthening the bond between Starbucks and its

consumers, improving consumers mood and increasing their overall satisfaction with the brand.

Regarding study two, our findings support the accuracy of the theoretical model of engagement that was developed with the aim of measuring the level of engagement through 400 user-generated contents (i.e., comments/reviews) made available by consumers of Starbucks in its Facebook brand page. It is possible to draw this conclusion since the engagement model was transformed into a database and further analysed by an independent data mining software (Weka), which revealed two important findings about the proposed model: high accuracy and low noise. According to the J58 algorithm (Witten *et al.*, 2011), the model achieved approximately 88.5% in the precision parameter. Together with this, the IBk test indicated the model is not noisy, once the accuracy level decreased as k increased, thus revealing a considerably good quality level. Hence, the set of tests performed on Weka supported that the engagement level registered in Facebook can be reliably measured by the model produced in Study 1, which consequently answers the sub-question 2 ("Can the engagement, exhibited in Facebook, be reliably measured by the achieved model?") also in a positive manner.

Consequently, the set of findings suggest that active listening can bring concrete improvements to consumer-brand relationships, which allows to answer positively to our research question: Can the practice of active listening improve the relationship between consumers and brands?

Conclusions and Implications

The theoretical engagement model developed in this paper has some limitations that should be considered when companies/brands decide to apply it within their real context to improve the engagement results of their target market. Only one brand was used in the current study (Starbucks). Indeed, Starbucks belongs to a specific sector and therefore applying the study to different sectors may require some adaptations. Future research may explore the current theoretical model on distinct market sectors to make possible comparisons and allow the generalization of the findings presented here.

Second, brands and companies must also take into consideration the time limitations under which the study was performed and so they must extend the data collection process to all moments of the year, since it will provide them more robust and realistic data, thus avoiding potential misleading results that might occur due the lack of seasonal information. Finally, further research should follow this innovative approach and go further in developing a predictive tool for brand engagement and active appreciative listening in online brand community contexts.

References

- Arora, A. S., & Sanni, S. A. (2018). Ten Years of 'Social Media Marketing' Research in the Journal of Promotion Management: Research Synthesis, Emerging Themes, and New Directions. *Journal of Promotion Management*, 1-24.
<https://doi.org/10.1080/10496491.2018.1448322>
- Baldus, B. J., Voorhees, C., & Calantone, R. (2015). Online brand community engagement: Scale development and validation. *Journal of Business Research*, 68(5), 978–985.
- Barkai, J. (1984). Active Listening: One Way to Be a Better Advocate, Counselor, and Businessperson, 20 TRIAL. Available at:
https://www.researchgate.net/publication/228242852_Active_Listening.

- Bauer, C., & Figl, C. (2008). Active listening in written online communication - A case study in a course on soft skills for computer scientists. *Proceedings of the 38th Frontiers in Education Conference: T1A1-T1A6*. IEEE.
- Bilro, R. G., Loureiro, S. M. C., & Ali, F. (2018). The role of website stimuli of experience on engagement and brand advocacy. *Journal of Hospitality and Tourism Technology*. <https://doi.org/10.1108/JHTT-12-2017-0136>
- Brodie, R. J., Hollebeek, L. D., Jurić, B., & Ilić, A. (2011). Customer engagement: Conceptual domain, fundamental propositions, and implications for research. *Journal of Service Research*, 14(3), 252–271.
- Bruning, S., & Hatfield, M. (2002). Linking Organization-Public Relationship Attitudes and Satisfaction Outcomes: Communication Strategies to Build Relationships and Enhance Satisfaction. *Journal of Promotion Management*, 8(2), 3-19.
- Cambridge Dictionary; Conversation; Available at: <http://dictionary.cambridge.org/pt/dicionario/ingles/conversation>; Accessed on 6th of July of 2017a.
- Cambridge Dictionary; Emotion; Available at: <http://dictionary.cambridge.org/pt/dicionario/ingles/emotion>; Accessed on 6th of July of 2017b.
- Chen, K., Sockel, H. (2002). Internet Engagement Process: A Study Correlating Internet Features to User Experience. *Journal of Promotion Management*, 9(1-2), 111-123.
- Coelho, P. S., Rita, P., & Santos, Z. R. (2018). On the relationship between consumer-brand identification, brand community, and brand loyalty. *Journal of Retailing and Consumer Services*, 43, 101-110.
- Comstock, N. W.; Active listening. In Comstock, Nancy W., Salem Press Encyclopedia, January, 2015; Available at: <https://vpn2.iscte.pt/+CSCO+00756767633A2F2F7271662E6F2E726F667062756266672E70627A++/eds/detail/detail?sid=8f2bb961-6f26-4d95-aa50-50924fa454a5%40sessionmgr101&vid=3&hid=126&bdata=JkF1dGhUeXBIPWlwLGNvb2tpZSxzZsGliLHVpZCZsYW5nPXB0LWJyJnNpdGU9ZWRzLWxpdmUmc2NvcGU9c2l0ZQ%3d%3d#AN=100259199&db=ers#AN=100259199&db=ers>; Published on January of 2015.
- Dessart, L., Veloutsou, C., & Morgan-Thomas, A. (2015). Consumer engagement in online brand communities: A social media perspective. *Journal of Product & Brand Management*, 24(1), 28–42.
- Dodoo, N. A. (2017). Why Consumers Like Facebook Brands: The Role of Aspirational Brand Personality in Consumer Behavior. *Journal of Promotion Management*, 24(1), 103-127.
- Fischer-Lokou, J., Lamy, L., Gueguen, N., & Dubarry, A. (2016). Effects of active listening, reformulation, and imitation on mediator success: Preliminary results. *Psychological Reports*, 118(3), 994–1010.
- Gautam, V., & Sharma, V. (2017). The Mediating Role of Customer Relationship on the Social Media Marketing and Purchase Intention Relationship with Special Reference to Luxury Fashion Brands. *Journal of Promotion Management*, 23(6), 872-888.
- Heslip, N. (2015). Active Listening: An important audit skill. *New Perspectives on Healthcare Risk Management, Control & Govern*, 34(1), 14-24.
- Hollebeek, L. D., Glynn, M. S., & Brodie, R. J. (2014). Consumer brand engagement in social media: Conceptualization, scale development and validation. *Journal of Interactive Marketing*, 28(2), 149–165.

- Jaakkola, E., & Alexander, M. (2014). The Role of Customer Engagement Behavior in Value Co-Creation: A Service System Perspective. *Journal of Service Research*, 17(3), 247–261.
- Kabadayi, S., & Price, K. (2014). Consumer - brand engagement on Facebook: Liking and commenting behaviors. *Journal of Research in Interactive Marketing*, 8(3), 203-223.
- Langaro, D., Rita, P., & de Fátima Salgueiro, M. (2018). Do social networking sites contribute for building brands? Evaluating the impact of users' participation on brand awareness and brand attitude. *Journal of Marketing Communications*, 24(2), 146-168.
- Levitt, D. (2001). Active listening and counselor self-efficacy: Emphasis on one micro-skill in beginning counselor training. *The Clinical Supervisor*, 20(2), 101–115.
- Loureiro, S. M. C. (2013). Consumer-brand relationship: Foundation and state-of-the-art. In Kaufmann, H. R. & Ali Khan, M. F. (Eds.), *Customer-centric marketing strategies: Tools for building organizational performance* (pp. 414-434). Hershey, Pennsylvania: IGI Global.
- Loureiro, S. M. C., & Gomes, D. (2016). Relationship between companies and the public on facebook: The Portuguese and the Brazilian context. *Journal of Promotion Management*, 22(5), 705-718.
- Loureiro, S. M. C., & Ribeiro, L. (2014). Virtual Atmosphere: The Effect of Pleasure, Arousal, and Delight on Word-of-Mouth. *Journal of Promotion Management*, 20(4), 452-469.
- Maggiani, R. (2012). Social Media and Its Effect on Communication: Multidimensional interactions have altered the basic rules of communication; Available at: <http://solaricommunication.com/toward-humanity/2015/02/04/social-media-and-its-effect-on-communication/>; Originally published on 2012.
- Malhotra, N. K. (2010). *Marketing Research: An Applied Orientation*. Pearson (6th editio). Upper Sadler River, New Jersey: Pearson Prentice Hall.
- Ott, H. K., Vafeiadis, M., Kumble, S. & Waddell, T. F. (2016). Effect of message interactivity on product attitudes and purchase intentions. *Journal of Promotion Management*, 22(1):89-106.
- Papasolomou, I., & Melanthiou, Y. (2012). Social Media: Marketing Public Relations' New Best Friend. *Journal of Promotion Management*, 18(3), 319-328.
- Robertson, K. (2005). Active listening: More than just paying attention. *Australian Family Physician*, 34(12), 1053 – 1055.
- Rogers, R. (1980). *A Way of Being*. Boston: Houghton Mifflin.
- Rogers, R., & Farson, E.; Active listening - Excerpt from *Communicating in Business Today*; Virtualmediationlab; Available at: http://www.virtualmediationlab.com/wp-content/uploads/2012/08/active_listening.pdf; Published in 1987.
- Sashi, C. M. (2012). Customer engagement, buyer-seller relationships, and social media. *Management Decision*, 50(2), 253–272.
- Shen, B., & Bissell, K. (2013). Social Media, Social Me: A Content Analysis of Beauty Companies' Use of Facebook in Marketing and Branding. *Journal of Promotion Management*, 19(5), 629-651.
- Starbucks; Company information; Available at: <https://www.starbucks.com/about-us/company-information>; Accessed on 6th of August of 2017.
- Szurawitzki, M. (2012). Analyzing the language of social networking sites - An analysis model. *Proceedings of 24th Scandinavian Conference of Linguistics*: 355-363. Available at: [https://www.researchgate.net/publication/255723700 Analyzing the Language of](https://www.researchgate.net/publication/255723700_Analyzing_the_Language_of)

Social Networking Sites -
An Analysis Model Proceedings of the 24th Scandinavian Conference of Linguistics.

- Thrassou, A., & Vrontis, D. (2009) A New Consumer Relationship Model: The Marketing Communications Application. *Journal of Promotion Management*, 15(4), 499-521.
- Vivek, D. (2009). *A Scale of Consumer Engagement*. Ph.D., Department of Management and Marketing, University of Alabama, Tuscaloosa.
- Waikato (2017a), Attribute-Relation File Format (ARFF); Available at: <http://www.cs.waikato.ac.nz/ml/weka/arff.html>; Accessed on 10th of July of 2017.
- Waikato (2017b), Weka 3: Data Mining Software in Java; Available at: <http://www.cs.waikato.ac.nz/ml/weka/>; Accessed on 10th of July of 2017.
- Walter, J., & D'Addario, K. (2001). The impacts of emotions on message interpretation in computer-mediated communication. *Social Science Computer Review*, 19(3), 324-347.
- Witten, I., Frank, E., & Hall, M. (2011). *Data mining: Practical machine learning tools and techniques* (3rd ed.). Amsterdam: Morgan Kaufmann.