

Capturing Emotional Footprint of Speakers at Convocation Addresses of Select Management Institutions in India

* Avadhanam Ramesh

** Padmaja Nalluri

Abstract

A convocation is a solemn occasion for the academic institutions, as it indicates the culmination of gallant efforts by students and faculty, etc. A convocation address by the chief guest leaves an indelible impression on the minds of graduating students who are raring to go and prove their mettle in the industry. An emotional footprint like a carbon footprint is equally important, affecting the working environment of the organization and the people. The present research paper attempted to capture the emotional footprint of the speeches at the convocation addresses of the year 2017 at world-class management institutions of India namely IIM Ahmedabad & IIM Bangalore. The paper also examined the emotional footprint of the speeches using 4B's framework of Saul Levine and the degree of persuasion in speeches through the lens of Aristotle's rhetoric. The study employed text analytics to see the pattern of the speeches by observing the number of words, sentences, characters, readability of the text, and sentiment analysis for identifying various shades of emotions, and data visualization tools were used to capture the salient aspects of the convocation addresses. The study found that the convocation speeches had all the dimensions of emotional footprint namely the four B's : being, belonging, believing, and benevolence. The study found that the overall sentiment of both the speeches was positive, and aroused emotions of happiness, liking, and calmness. Aristotle's rhetoric reveals that both the speakers used all three types of appeals : ethos, logical, and emotional aspects in their speeches, which left a positive emotional footprint on the audience.

Keywords : emotional footprint, convocation, address, text and sentiment analysis, Aristotle, rhetoric analysis

JEL Classification : D830, C890, I210

Paper Submission Date : November 24, 2018 ; **Paper sent back for Revision :** August 18, 2019 ; **Paper Acceptance Date :** August 25, 2019

A convocation is a gathering where a ceremony is held to honor the graduating students as members of the academic community stand in honour of this process, to wish them great success in their professional endeavors, and become brand ambassadors as alumni. Many a time, graduation events are called "convocations," as opposed to commencements in other universities, but they have one thing in common, which is, a guest speaker who addresses the gathering. A convocation is a much sought-after ceremony by the graduates where they receive their degrees with pride and a sense of accomplishment. Parents are known to experience much more delight at the convocation than on the birth of the child ("India: English rendering of the text of PM's convocation address at the 5th convocation of Shri Mata Vaishno Devi University in Katra," 2016).

A convocation address at management institutions is seen as the one final lecture by the alma mater to make a

* *Sr. Assistant Professor*, Vignana Jyothi Institute of Management, Bachupally, Nizampet, Hyderabad - 500 090. (Email : a.ramesh@vjim.edu.in) ; ORCID Id : <https://orcid.org/0000-0002-3020-1087>

** *Associate Professor*, Vignana Jyothi Institute of Management, Bachupally, Nizampet, Hyderabad - 500 090. (Email : dr.padmajan@vjim.edu.in) ; ORCID Id : <https://orcid.org/0000-0002-3261-8353>

DOI : 10.17010/pijom/2019/v12i9/147127

final impression on the graduating students who are at an important turning point of their lives as they step into the real-world experiential learning and in some cases, pursue higher education.

The first mention of convocation goes back to the Upanishads, extracts of Vedanta, or material from the Vedas which represent the philosophical essence of the Vedas. It is the *Taittiriya Upanishad*, which first time mentions about the convocation ceremony and embodies its imagination. Since thousands of years, this glorious tradition has been kept alive by Indian institutions.

A chapter, "*Siksha Valli*" in the *Taittiriya Upanishad* speaks about how a student who acquires theoretical knowledge during education, needs to now put into practice this knowledge while contributing to the society (Sunder, 2004). The section called *Shishya - Anushasanam* meaning 'rules for a student' contains a detailed and unique exhortation about life by the teacher to the students on what a student should do after he completes formal education. It reflects the eternal wisdom which the rishis had attained from their experiences and a complete understanding of life. These are rules for the students which are valid and applicable even now, despite changed environments and a different system of education. One may link these principles to a convocation address given to the graduating students ready to embark on a new life leaving the portals of an educational institution to pursue a career goal or a balanced and purposeful life of earning and acquiring wealth, while carrying out their family duties and contributing to the society.

Many speakers may think that most students don't remember their graduation addresses. Gupte (2016) contradicts this, emphasizing that there are few exceptional speakers who have managed to inspire and have left an emotional footprint with the text of their convocation speeches for years to come. Some of the most memorable ones include: Steve Jobs at Stanford University (2005), Ratan Tata at Rajarambapu Institute of Technology (2013), APJ Abdul Kalam at Indian Institute of Technology Guwahati (2012), Sheryl Sandberg at University of California Berkeley (2016), JK Rowling at Harvard University (2003), Stephen Colbert at North - Western University (2011).

Since the common thread for all these speeches at a convocation is to motivate, inspire, evoke ethical thinking and social responsibility, this paper is an attempt to quantify the commonalities with respect to their use of vocabulary to portray acts, thoughts, feelings, emotions, and deeds using 4B's framework of Saul Levine.

Levine (2015) noted that in the course of our lifelong journeys, we inevitably affect other people, our families, friends, and colleagues to be sure, but also people in our neighbourhood shops and streets, and over time, we leave impressions on others, for better or for worse. Levine examined the lives of people through the lens of the four Bs - being, belonging, believing, and benevolence and how they've affected others during their lives. Here, we have attempted to study the foundation of emotional footprint of the speeches based on the vocabulary used during the convocation addresses. Dhani and Sharma (2017) examined the relationship between emotional intelligence and personality in service organizations in India (among middle - level managers). The study found that there was a relationship between EI and six personality traits (Empathy, Ego-Ideal, Pessimism, Introversion, Neuroticism, and Self-Confidence).

Much work has been done on analyzing public political speeches using the rhetorical appeals - ethos, pathos, and logos defined by Aristotle, and also referred to as the modes of persuasion in Western countries. Aristotle states that the most powerful means of persuasion can be ethos or the image that a speaker portrays, which often is more effective than logical argument or emotional invocation (Cooper, 1932). Aristotle goes on to describe that when speakers convey virtue, practical wisdom, and good will towards the audience, a constructive ethos is generated (Cooper, 1932). In their study, Mohanty and Das (2017) observed that the ability of expressing one's emotions and how we perceive other's emotions is the key to effective leadership and motivation of the subordinates.

Beason (1991) suggested that there is a need for teachers and practitioners of business communication to have a practical and sound means to analyze and use appeals of ethos.

Dilliplane (2012) argued that ,

the significance of Barack Obama's March 18th speech "*A More Perfect Union*" lies in the specific challenges posed in the immediate context, the rhetorical strategy that he used to negotiate these challenges, and the way in which this strategy resonated more broadly with the rhetorical themes underlying the candidate's campaign for President. (p.127)

According to Cyphert (2010),

Serious attention to the rhetorical analysis and criticism of the public discourse of business leaders can offer important insights about influential participants in political and social decision-making processes, contributing to the development of a coherent body of scholarship that addresses communication at the intersection of business, rhetoric, and society. (p. 346)

Charteris - Black (2011) analyzed the rhetoric of nine successful influential politicians and described how their approach to usage of language actualised convincing and reliable stories about themselves and the environment they live in. He explored their use of analogy, their misconceptions, and how language analysis helps us to understand how politicians can persuade. Keeping in mind the analyses of rhetoric of political speeches, the degree of persuasion in convocation speeches has been attempted in this article.

Sentiment analysis is the task of identifying positive and negative opinions, emotions, and evaluations (Wilson, Wiebe, & Hoffmann, 2005). Khoo, Nourbakhsh, and Na (2012) suggested that the access to a large number of online news sources on the web and various social media sites facilitates an enormous opportunity for data mining of opinionated text of all kinds on the web in the interest of research and business. Haselmayer and Jenny (2017) emphasized that the availability of abundant digital textual data and continuously improvised automated text analysis tools provide for innovative social science research and it is significant to study the sentiment in studies of news values, public opinion, negative campaigning, or political polarization. The statistical analysis of written documents has become a common practice and a consolidated scientific instrument in today's time. Although data analysis has been fully incorporated in the field of literary studies, not much work has gone into investigation of the textual or verbal production of public administration with equal quantitative rigor.

Computer-coded textual analysis of political data is an emerging field of research with interdisciplinary applications. Windsor, Dowell, and Graesser (2015) pointed out that, "Linguistic features of leaders' speeches, like the use of emotionally laden vocabulary, or pronouns like I or they to indicate psychological distance are evidence of the strategies leaders use to relate to their audiences" (p. 452).

The studies with respect to text and sentiment analysis in public speeches are sparse in Indian context, and our paper makes an attempt to fill this void.

Objectives of the Study

- (1)** To examine the emotional footprint using 4B's framework of Saul Levine.
- (2)** To examine the degree of persuasion in speeches through the lens of Aristotle's *Rhetoric*.
- (3)** To explore myriad emotions of the speeches using sentiment analysis.
- (4)** To examine the quantitative aspects of the speeches using text analysis.

Methodology

The following speeches are used for the analysis :

(1) Speech at IIMA by Mrs. Shikha Sharma - Chief Guest, CEO and Managing Director, Axis Bank Ltd. at the 52nd Annual Convocation held on March 25, 2017.

(2) Speech by Chief Guest Shri Uday Kotak, Executive Vice-Chairman & Managing Director, Kotak Mahindra Bank Limited at IIM Bangalore Convocation 2017, March 20, 2017.

Tools such as Textanalyser.net and online-utility.org/text analyzer for text analysis, Tagcrowd for data visualization, and Theysay for sentiment analysis have been used for the study. Aristotle's rhetoric framework and emotional footprint framework by Sullivan have also been used.

Application of Saul Levine's 'Emotional Footprint' Framework

According to Saul Levine (2015), 'emotional footprint' is a bequest we leave behind after we part in our community and in our family. The four B's : being, belonging, believing, and benevolence are defined as the four essential elements for creating a positive emotional footprint.

↳ **Being (Personal)** : People with a sense of acknowledging the efforts of others in their life are grounded and have a realistic self-image and self-acceptance.

↳ **Belonging (Social)** : People with a sense of belonging are members of at least one group or community (family, organization etc.) that is important to them, where they feel liked and appreciated, and they respond those feelings.

↳ **Believing (Ethical/Spiritual)** : A sense of believing refers to guiding values and ethics of behavior.

↳ **Benevolence** : A sense of benevolence is an awareness of how kind and generous we have been or the positive effects we have had on others. Benevolence is a result of the other B's.

Analysis and Results

The Table 1 indicates the emotional footprint of speakers captured using Saul Levine's 'emotional footprint' framework comprising of the four elements of the 4 B's namely being, belonging, believing, and benevolence. The excerpts of the speeches which have these elements are shown in the table. We assume that the four B's which probably had enabled the speakers to leave a legacy of positive emotional footprints in the social or corporate spheres, would in a similar way leave positive emotional footprint also on the students (audience) at the convocation ceremony.

(1) Explore Persuasiveness of Speeches Through Aristotle's Persuasive Appeals : The great Greek philosopher Aristotle divided the means of persuasion comprising of three appeals. These three appeals include : ethos (credibility/character of the speaker), pathos (emotional component), and logos (logical component).

The Table 2 shows the persuasive appeals (ethos, pathos, logos) made in the speeches which go a long way in leaving a positive emotional footprint on the audience.

(2) Results and Interpretation of Sentiment Analysis : Sentiment analysis (SA) is the computational study of

Table 1. Foundation of Emotional Footprint - 4 B's Framework

Foundation of Emotional Footprint	Excerpts from the Speech* of Mrs. Shikha Sharma -Chief Guest, CEO and MD, Axis Bank Ltd. at IIMA	Excerpts from the Speech** of Mr. Uday Kotak, Executive VC and MD, Kotak Mahindra Bank at IIMB
BEING (Personal)	<p>I remember a myriad of emotions from that day - pride at having got thus far, anxiety about what the future might bring, and eagerness for the next phase of life. As I drove in today, I noticed that a lot has changed about our campus.</p> <p>Choosing the road less travelled.</p> <p>A lot of what I am today, the achievements that were so kindly mentioned in the introduction, are a function of the partner I was lucky to have alongside my journey.</p>	<p>I was the beneficiary of it. I passed out of the second best college called Bajaj, the best of course we have discussed!</p> <p>This was in 1982-83.</p> <p>I was fortunate to take that risk and I invited some of my friends to invest alongside with me and some of them have still held on to the shares.</p>
BELONGING (Social)	<p>The principles of what makes for lasting relationships with your work team or with your organization aren't terribly different from those that make lasting personal partnerships.</p> <p>I decided to return to banking, to lead Axis Bank, the organization that I have been proudly associated with ever since.</p>	<p>Every single day after I passed out from college, I have enjoyed going to work.</p> <p>For me, it is pleasure.</p>
BELIEVING (Ethical/Spiritual)	<p>Every time you decide to take the harder but more principled path, you add one more brick to the foundation of your character. And every time you choose to compromise with what you believe in, you give yourself the licence to do it again, and you take a brick away.</p>	<p>The first one of the Cs, which I think is extremely powerful for me, is the C of character. And what is character? Across your journey friends, you will find many an opportunity to do what is effectively a short cut. But you need to ask yourself and ask within you, <i>is it right or is it wrong?</i> And if you get an answer within you that it is wrong, have the character to stand up and say: <i>I will not do it!</i></p>
BENEVOLENCE	<p>The Institution and I were both taking a big bet...as it turned out, it worked just fine! A few years later, yet another pivot - this time to leave banking altogether and set out to establish a life insurance company. A few exciting years later - one more fork in the road. I decided to return to banking, to lead Axis Bank, the organization that I have been proudly associated with ever since.</p>	<p>Choose creative people who are bold enough to think differently and that's what I genuinely care for.</p>

Source : * IIM Ahmedabad Convocation 2017. (2017a, March 25). *Convocation address - IIM Ahmedabad*. Retrieved from https://www.iima.ac.in/c/document_library/get_file?uuid=29eccd6d-0b77-4254-9fbb-5d506c348ad2&groupId=204384

Source : ** IIM Bangalore Convocation 2017. (2017b, March 20). *IIM Bangalore convocation 2017*. Retrieved from <https://www.iimb.ac.in/sites/default/files/inline-files/speech-shri-uday-kotak.pdf>

people's opinions, attitudes, and emotions toward an entity. The entity can represent individuals, events, or topics (Medhat, Hassan, & Korashy, 2014). Sentiment analysis identifies the sentiments expressed in a text, then analyzes it to find opinions, identify the sentiments they express, and then classify their polarity. Polarity of a

Table 2. Persuasive Appeals

Persuasiveness Appeals	Excerpts from the Speech* of Mrs. Shikha Sharma - Chief Guest, CEO and MD, Axis Bank Ltd. at IIMA	Excerpts from the Speech** of Mr. Uday Kotak, Executive VC and MD, Kotak Mahindra Bank at IIMB
Ethos: (Credibility or character) of the speaker)	<p>After my first years as a corporate banker, and about 5 more as an investment banker, the organization offered me a chance to pivot once again - this time to set up the personal financial services business. I must admit my nervousness - retail finance was a much-debated diversification for the group and I had no exposure to it at all! The Institution and I were both taking a big bet...as it turned out, it worked just fine!</p> <p>A few years later, yet another pivot - this time to leave banking altogether and set out to establish a life insurance company. A few exciting years later - one more fork in the road. I decided to return to banking, to lead Axis Bank, the organization that I have been proudly associated with ever since.</p> <p>So, why all these pivots, these journeys into roads less travelled? For me, the key driver has always been the same - the learning curve.</p>	<p>We got into an area which was bill discounting, a very simple area, and it was an area which the private sector could legally and legitimately do. Nobody had thought of doing it in the private sector.</p> <p>And we were ready to be creative and started this business in a very small manner, 31 years ago friends, and I am happy to report back to you that little aperture of creativity has effectively created for us a company which was 3 people when I started to 46,000 employees today and a return for shareholders, since most of you are business school graduates, of 40% per annum compounded for over 30 years.</p>
Pathos: (Emotional connection to the audience)	<p>It is a great privilege for me to return to campus, stand at this end of the podium, and speak with you on what is likely, a memorable day in your lives so far. It is hard for me to believe that 37 years have passed since the day I was sitting where you are today. I remember a myriad of emotions from that day - pride at having got thus far, anxiety about what the future might bring, and eagerness for the next phase of life.</p>	<p>I am delighted to be here at IIMB, which is popularly called by most people as IIM Best. So friends, you have a lot to live up to, and I am going to today talk to you about how you are entering the world at large post your cocoon at a time when you are seeing a dramatic change in the world order.</p>
Logos : (Logical argument)	<p>The more learning curves I climb, the more complex and novel situations I put myself in; the more likely that I will continue to remain relevant. Growth begins where your comfort zone ends.</p> <p>Every time I have found myself at one of life's crossroads, I have tried to ask myself - "which path offers me the steeper learning curve?" And often, I have tried to take that path. I have tried to learn new ways to learn, and slowly but surely, learning itself has become a habit.</p>	<p>Friends, 2016 is possibly a turning point of this Megatrend II. We can debate whether this is a temporary phase or something significantly different as you embark upon your careers. 2016 saw the first move which was anti-globalization and effectively saying we want protection through Brexit in June 2016. We now have a United States which is saying we want to be protectionist ; we want to move away from a shared global order. We are ready to share the global order as long as we get the first bite. The rest matter only after that. There is an increase in terms of the mind-sets of people towards populism.</p>

Source : *IIM Ahmedabad Convocation 2017. (2017a, March 25). *Convocation address - IIM Ahmedabad*. Retrieved from https://www.iima.ac.in/c/document_library/get_file?uuid=29eccd6d-0b77-4254-9fbb-5d506c348ad2&groupId=204384

Source : **IIM Bangalore Convocation 2017. (2017b, March 20). *IIM Bangalore convocation 2017*. Retrieved from <https://www.iimb.ac.in/sites/default/files/inline-files/speech-shri-uday-kotak.pdf>

Table 3. Overall Sentiment of the Documents

Name of Institutes	Positive	Negative	Neutral	Topic	Confidence	Interpretation
Convocation Address at IIMA	0.619	0.262	0.119	Confidence	0.819	We find that the overall sentiment of the documents is similar, but speech at IIMB convocation has higher negative speech.
Convocation Speech at IIMB	0.525	0.415	0.059	Confidence	0.757	

Table 4. Analysis of Emotions

Institutes	Anger	Calmness	Fear	Happiness	Liking	Shame	Certainty	Surprise
Speech at IIMA	1.16	14.932	1.378	13.015	11.574	0	0.106	0.519
Speech at IIMB	2.314	16.308	2.002	19.341	19.382	0	1.323	0

Table 5. Entities

Institutes									
Speech at IIMA	People	Time date	Entity	Location	Money	-----	Organization	City	Company
Speech at IIMB	People	Time date	Entity	Location	Money	Country	Organization	City	Company

Table 6. Categories in Speeches

Speech at IIMA Categories	Speech at IIMB Categories	Interpretation
Likelihood	Likelihood	Almost similar categorization of content except the two of wanting and estimate are found to be in the speech/address at IIMA.
Wanting	Wanting	
Belief	Belief	Intuitively, we expect the categories like risk, future, intention and plan, decision to also be present as these are critical elements indicating environmental aspects of the decision-making skills which are necessary for budding managers.
Search	Search	
Future	Future	
Attempt	Attempt	
Conditional	Conditional	
Risk	Risk	
Cognition	Cognition	
Speculation	Speculation	
Intent	Intent	
Plan and estimate	Plan	
Decision	Decision	

sentence measures whether a sentence is expressing positive, negative, or neutral sentiment towards the subject.

The Table 3 indicates that the overall sentiment of the speeches is predominantly positive. The Table 4 shows the varied emotions (such as anger, happiness, likeness, etc.) and calmness, happiness, and likeness are predominant emotions in the speeches. The Table 5 shows the elements of speeches (organization, people, and country). The Table 6 identifies various categories of the speeches which are similar in the convocation speeches.

(3) Results and Interpretation of Text Analysis : The Table 7 shows the results of the text analytics of the speeches (no. of characters, number of words, lexical density, readability, etc.). Surprisingly, there are lot of similarities between the speeches.

The Table 8 and Table 9 show the top words and ranking based on frequency which again reveals similarities (example - you and your).

Figure 1 and Figure 2 show the top 50 words in convocation speeches at IIM-B and IIM-A. The words in large font and size show that they are prominent. Some of the words include : change, friends, India, life, lives, etc.

Table 7. Parameters and Interpretation

	Parameters	Speech at IIMA	Speech at IIMB	Interpretation
1.	Number of characters (including spaces)	13316	13771	Surprisingly, there is a lot of similarity in terms of text analysis parameters.
2.	Number of characters (without spaces)	10446	10893	
3.	Number of words	2456	2547	
4.	Lexical density	32.5326	27.3655	
5.	Number of sentences	147	129	
6.	Number of syllables	3657	3808	
7.	Readability (Gunning - Fog Index): (6 - easy 20-hard)	8	9.2	
8.	Readability (Alternative) beta: (100-easy 20-hard, optimal 60-70)	56.1	54.1	

Table 8. Frequency and Top Words for Speech at IIMA

Word	Occurrences	Frequency	Rank
you	88	6.7%	1
your	29	2.2%	2
life	15	1.1%	3
choice	14	1.1%	3
our	13	1%	4
today	12	0.9%	5
what	11	0.8%	6
well	9	0.7%	7
time	9	0.7%	7
choices	9	0.7%	7

Limitations of the Study and Scope for Further Research

The study is limited to the convocation addresses at only two premier academic institutes in the same year. The study can be further extended to other speeches delivered at academic institutes of national eminence such as IITs in other fields to measure qualitatively the emotional footprint. Furthermore, the study can be extended by taking immediate feedback from the graduating students and parents who have attended the convocations. There is a need to design a new scale to measure emotional footprint (offline and online). The relationship between emotional quotient and emotional footprint needs to be examined at senior, middle, and top levels of management in an organization.

References

- Beason, L. (1991). Strategies for establishing an effective persona: An analysis of appeals to ethos in business speeches. *The Journal of Business Communication*, 28(4), 326 - 346.
- Charteris - Black, J. (2011). *Politicians and rhetoric: The persuasive power of metaphor*. London: Palgrave Macmillan.
- Cooper, L. (1932). *The rhetoric of Aristotle: An expanded translation with supplementary examples for students of composition and public speaking*. Englewood Cliffs, NJ: Prentice-Hall.
- Cyphert, D. (2010). The rhetorical analysis of business speech: Unresolved questions. *The Journal of Business Communication*, 47(3), 346 - 368.
- Dhani, P., & Sharma, T. (2017). Emotional intelligence and personality: Their relationship in the Indian context. *Prabandhan: Indian Journal of Management*, 10(9), 39 - 52. DOI : 10.17010/pijom/2017/v10i9/118241
- Dilliplane, S. (2012). Race, rhetoric, and running for President: Unpacking the significance of Barack Obama's "A More Perfect Union" speech. *Rhetoric & Public Affairs*, 15(1), 127 - 152.
- Gupte, M. (2016, May 17). 6 inspiring convocation speeches panache. *The Economic Times*. Retrieved from <https://elibrary.vjim.edu.in:2071/docview/1789300392?accountid=147271>
- Haselmayer, M., & Jenny, M. (2017). Sentiment analysis of political communication: Combining a dictionary approach with crowdcoding. *Quality and Quantity*, 51(6), 2623 - 2646.
- IIM Ahmedabad Convocation 2017. (2017a, March 25). *Convocation address - IIM Ahmedabad*. Retrieved from https://www.iima.ac.in/c/document_library/get_file?uuid=29eccd6d-0b77-4254-9fbb-5d506c348ad2&groupId=204384
- IIM Bangalore Convocation 2017. (2017b, March 20). *IIM Bangalore convocation 2017*. Retrieved from <https://www.iimb.ac.in/sites/default/files/inline-files/speech-shri-uday-kotak.pdf>
- India: English rendering of the text of PM's convocation address at the 5th convocation of Shri Mata Vaishno Devi University in Katra. (2016, Dec 28). *Asia News Monitor*. Retrieved from <https://elibrary.vjim.edu.in:2071/docview/1852796959?accountid=147271>

- Khoo, C. S - G., Nourbakhsh, A., & Na, J. - C. (2012). Sentiment analysis of online news text: A case study of appraisal theory. *Online Information Review*, 36(6), 858 - 878.
- Lakshminarayanan, S., Pai, Y., P., & Ramaprasad, B. S. (2016). Managerial competencies, self - efficacy, and job performance: A path analytic approach. *Prabandhan: Indian Journal of Management*, 9(10), 7 - 22. DOI: 10.17010/pijom/2016/v9i10/103068
- Levine, S. (2015). *Our emotional footprint: Ordinary people and their extra- ordinary lives*. Bloomington, Indiana: iUniverse.
- Medhat, W., Hassan, A., & Korashy, H. (2014). Sentiment analysis algorithms and applications: A survey. *Ain Shams Engineering Journal*, 5(4), 1093 - 1113.
- Mohanty, A., & Das, G. P. (2017). Revisiting the *Arthashastra* : An approach to emotional intelligence. *Prabandhan: Indian Journal of Management*, 10(5), 24 - 36. DOI: 10.17010/pijom/2017/v10i5/114253
- Sunder, H. (2014). *Shik Shavalli from Taittiriyaopanishad* (Translated Document). Retrieved from https://sanskritdocuments.org/doc_upanishhat/shikshaavali.pdf
- Wilson, T., Wiebe, J., & Hoffmann, P. (2005). Recognizing contextual polarity in phrase-level sentiment analysis. In *Proceedings of Human Language Technology Conference and Conference on Empirical Methods in Natural Language Processing*, Vancouver, held at British Columbia, Canada — October 06 - 08, 2005. Retrieved from <https://www.aclweb.org/anthology/H05-1044>
- Windsor, L. C., Dowell, N., & Graesser, A. (2015). The language of autocrats: Leaders' language in natural disaster crises. *Risk, Hazards & Crisis in Public Policy*, 5(4), 446 - 467.

About the Authors

Avadhanam Ramesh has more than two decades of academic experience in teaching and research. He is currently working as a Senior Assistant Professor in the area of marketing. His research work focuses on spirituality and consumer behaviour. He has presented papers at reputed internal conferences held at IIMs and has a few case study publications to his credit.

Dr. Padmaja Nalluri is an Associate Professor in the area of statistics and business analytics at Vignana Jyothi Institute of Management, Hyderabad, Telangana with a vast experience in academia. Her research interests are applied statistics in management studies and image compression.