

Marketing Research & Analytics

Session 2

Dr. Rajibul Hasan (Raj) , PhD, MBA, BBA

Website: www.rajibulhasan.com

Towards the Future of Retailing and Marketing

- The rapid developments and diffusion of advanced technologies such as (a) Big data and big data analytics, (b) Artificial intelligence (AI) and Machine learning, and (c) Network access and infrastructures are dramatically changing the Marketing landscape.
- Some authors predict possible replacement of traditional sales assistants' jobs (including substitution of salespeople with new forms of full digital assistance) (Huang and Rust 2017, 2018).
- Other authors hypothesized a future scenario immersed in virtual and augmented technologies (Papagiannidis et al. 2017; Cowan and Ketron in press; Van Kerrebroeck et al. 2017).

Sources:

Huang, M.-U., & Rust, R. T. (2017). Technology-driven service strategy. *Journal of the Academy of Marketing Science*, 45, 906–924.

Huang, M.-U., & Rust, R. T. (2018). Artificial intelligence in Service. *Journal of Service Research*, 21(2), 1–18.

Papagiannidis, S., Pantano, E., See-To, E., Dennis, C., & Bourlakis, M. (2017). To immerse or not? Experimenting with two virtual retail environments. *Information Technology and People*, 30(1), 163–188.

Cowan, K., & Ketron, S. (in press). A dual model of product involvement for effective virtual reality: The roles of imagination, co-creation, telepresence, and interactivity. *Journal of Business Research*.

Van Kerrebroeck, H., Brengman, M., & Willems, K. (2017). Escaping the crowd: An experimental study on the impact of virtual reality experience in a shopping mall. *Computers in Human Behavior*, 77, 437–450.

Pillars of Change

Three main areas in retailing and Marketing might be the ones most affected in the future by the advances of technologies.

These three main areas of retailing and marketing are:

- (1) Marketing and competitor intelligence,
- (2) Customers assistance, and
- (3) In-Store Social Interactions

Past Source: Based on practitioners' interest, technologies development, and scientific research (Bradlow et al. 2017; Balducci and Marinova 2018)

Sources:

Bradlow, E. T., Gangwar, M., Kopalle, P., & Voleti, S. (2017). The role of big data and predictive analytics in retailing. *Journal of Retailing*, 93(1), 79–95.
Balducci, B., & Marinova, D. (2018). Unstructured data in marketing. *Journal of the Academy of Marketing Science*, 46, 557–590.

Marketing and competitor intelligence

- Consumer-generated contents (e.g., Rating, Reviews, Photos) help marketing decision strategies in retailing.
- Social Network Data (e.g., Pinterest, Twitter, and Facebook) provides a rich dataset on consumers' experiences with certain brands/products/services.
- Many external service providers (e.g. Google Cloud, Microsoft Azure, etc.) are offering big data analytics services to support the extraction of consumers' insights.

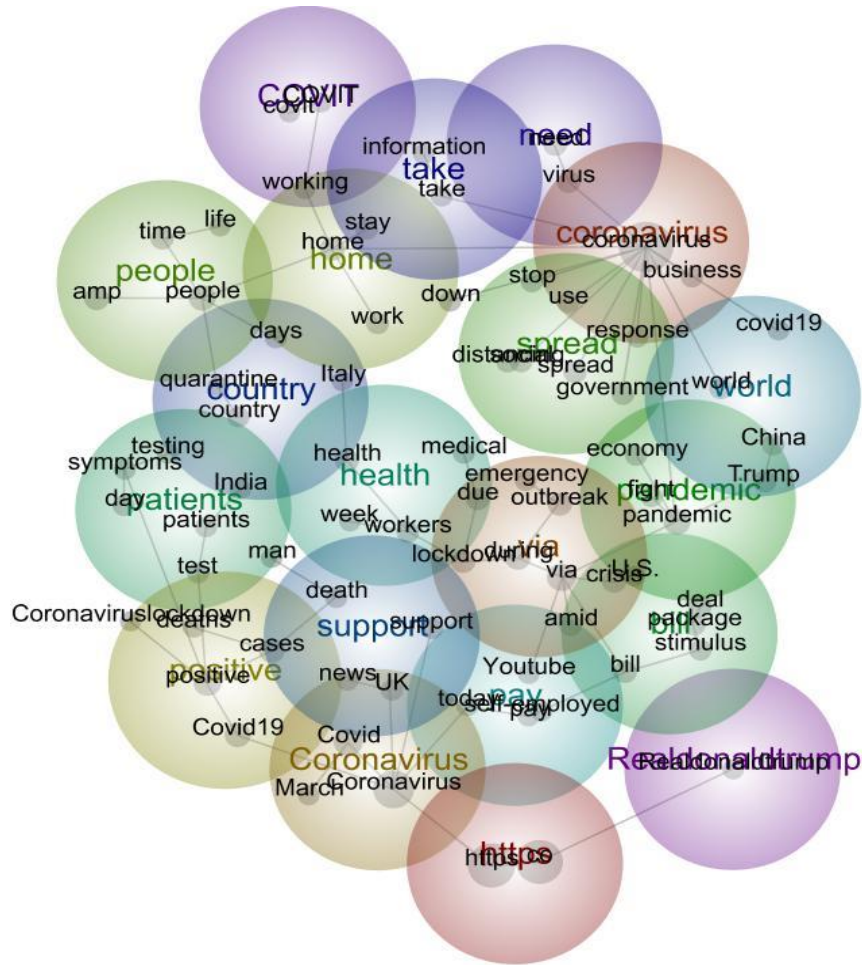
Example

Consumer-generated contents Monitoring

- Measuring public opinion was always about extrapolating from surveys and hoping the small sample you selected was representative of the general public. Today, individual public opinion is ripe for the taking on Facebook, YouTube, Instagram, Twitter, Reddit, WhatsApp, and whatever new product review or augmented-reality platform pops up next.
- Example: Twitter Monitoring

Consumer-generated contents Monitoring

Automatic Content Analysis Based on 18722 tweets



The following contents related to Coronavirus are being discussed in twitter-

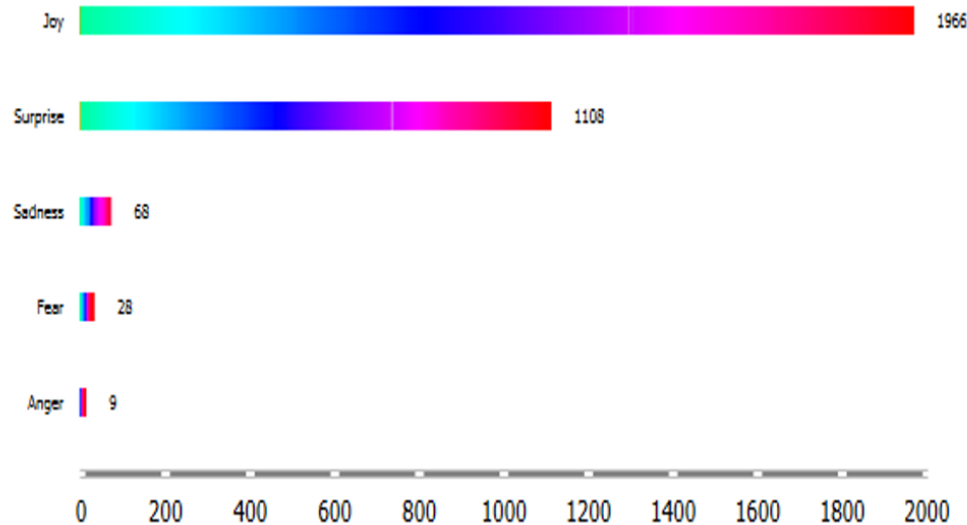
- coronavirus
- positive
- people
- home
- pandemic
- spread
- patients
- health
- world
- bill
- support
- pay
- country
- need
- take

Example

Social Network Data Monitoring

Sentiment Analysis. Text mining Results are based on 9000 tweets .

Emotions expressed 2 days before the Valentine's day



Emotions expressed on the Valentine's day

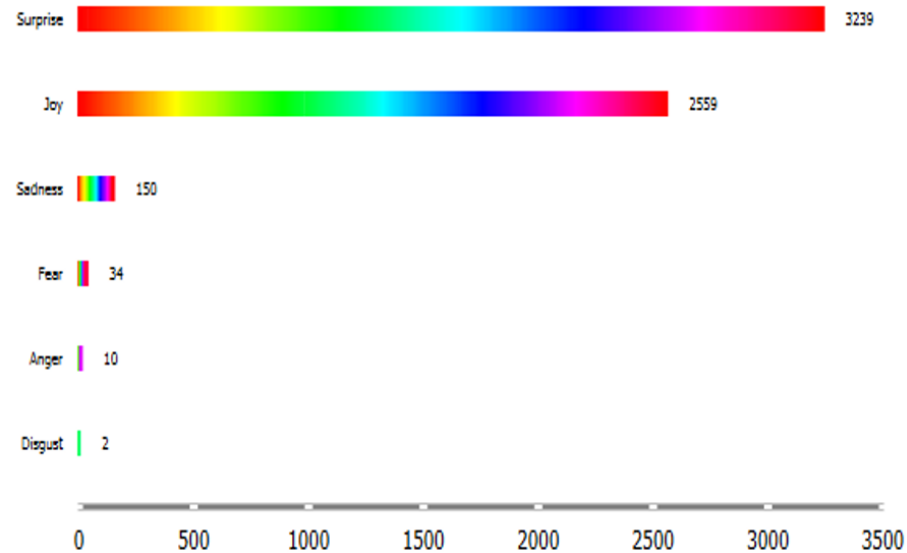


Image and Video Analysis

- With the advancement of Artificial Intelligence, it is possible now to analyze images and videos posted by consumers or competitors in Social Media.
- It helps to decide on different marketing strategies.
- It helps to understand the competitors.
- Example: My Article related to the usage of Deep Learning

Image and Video Analysis



Image and Video Analysis



Pillars of Change

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Customer Assistance

- Automation is increasingly becoming of critical importance in retailing (Rust and Huang 2014).
- For instance, self-service technologies, AR and VR technologies, and robotic services facilitate improvements to the efficiency of quite standardized activities that fulfill given sets of customer needs;
- Relational technologies such as artificial intelligence (AI) are able to adaptively interact with customers (Huang and Rust 2017).

Sources:

Rust, R. T., & Huang, M. H. (2014). The service revolution and the transformation of marketing science. *Marketing Science*, 33(2), 206–221.

Huang, M.-U., & Rust, R. T. (2018). Artificial intelligence in Service. *Journal of Service Research*, 21(2), 1–18.

Customer Assistance

- The integration of “virtual agents” and artificial intelligence applications for the development of new and more efficient virtual assistants (such as chat-bots) able to mimic human language/conversations and provide more realistic experiences (Hill et al. 2015; Mou and Xu 2017). Example: ChatGPT
- For instance, some luxury retailers already introduced within their Facebook pages the possibility for clients to chat with the brand through chatbot (e.g. Ted Baker’s “Seemore” and Victoria Beckham’s “Messenger Experience”) to support consumers in getting help or finding inspiration.

Sources:

Hill, J., Ford, W. R., & Farreras, I. G. (2015). Real conversations with artificial intelligence: A comparison between human-human online conversations and human-chatbot conversations. *Computers in Human Behavior*, 49, 245–250.

Mou, Y., & Xu, K. (2017). The media inequality: Comparing the initial human- human and human-AI social interactions. *Computers in Human Behavior*, 72, 432–440.

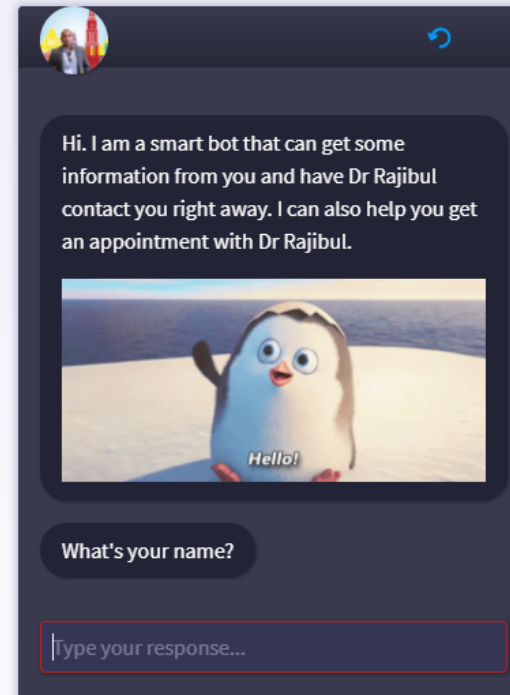
Customer Assistance

- Smartbot.rajibulhasan.com

Want to contact Dr Rajibul Hasan?

You can start chatting with this smart bot to contact Dr Rajibul Hasan.

www.rajibulhasan.com



Customer Assistance-Voice assisted AI

- Siri , Alexa
- Consumers can order from amazon using Alexa.



AR and VR in Marketing

Augmented reality (AR) refers to the integration of the actual world with digital information about it. Actual objects and people cast an information shadow: an aura of data which, when captured and processed intelligently, can offer extraordinary value to consumers.

This technology comes in a myriad of forms: from wearables and smart glasses that use retinal projection to put a display in the wearer's eyeball (e.g., Google Glass was a very noticeable ARheadset) to the more commonly used smartphones.

Example: Smart Mirror



AR and VR in Marketing

Virtual reality (VR) refers to complete, 3-D virtual representations of the actual world or of objects within it. For instance, AutoCAD software allows architects, engineers, and design professionals to create precise 3-D drawings of actual buildings before they make changes to them. Virtual 360-degree tours invite others to visit faraway sites.



In-Store Social Interactions

- Social networks such as Facebook and Pinterest provide consumers with access to a larger range of social connections that are able to interfere with the shopping experience at various levels).
- Pantano and Gandini (2018) demonstrate that young people actively access social networks from the store to (1) support and empower the shopping experience and (2) guide the purchase decision.
- Moreover, the use of social networks from within stores introduces a new retail perspective that shifts from consumer-to-employee relationships toward consumer-to-consumer relationships (Pantano and Gandini 2018).

Sources:

Pantano, E., & Gandini, A. (2018). Shopping as a “networked experience”: An emerging framework in the retail industry. *International Journal of Retail & Distribution Management*, 46(7), 690–704.

In-Store Social Interactions

- As a consequence, retailers are recommended to provide new shopping experiences embedding social networks' experiences, to make the best usage of these tools resulting in higher consumer loyalty, positive word-of-mouth communication, and better store and retailer's image.

Group Report Format

The report should be 9-10 pages long, excluding the cover page, bibliography page, and appendixes which should contain exhibits (pictures, transcripts):

1. Cover page: a title (e.g., Towards the future of Marketing), the Group members name and an abstract of less than 150 words,
- 2. Introduction (1/2 page),**
- 3. Literature Review (Relevant Theories)**
- 4. Methodology**
- 5. Findings**
- 6. Recommendation**
- 7. Conclusion (1/2 page),**
8. Bibliography: list sources in alphabetical order of author's last name. Use Harvard referencing system
9. Appendix (optional): Pictures illustrating your findings conveying points you are making in the main body of your report should be here and not in the main body. Link to One Drive of Interview recording. Please make sure that this link is accessible by testing with other group members.

Literature Review

- It helps to understand the research topic.
- Previous research in this area.
- Help to identify research gap.
- Help to generate new questions for your interviews.

Interview details

Respondents

- Above 18 years old Respondents
- Voluntary participation of Respondents.
- Please do not disclose the name of respondents in any document (e.g., try to use respondent 1, 2, 3 or respondent A, B, C) . We also don't need name in the recorded audio.
- Please remember that you are getting information and respondents are providing it.
- Consent form (Optional)

Interview details

Semi Structured Interviews or Semi Standardized Interviews Questions

- List of Questions
- You can adapt the wording for each participant to maximize understanding.
- You can ask some additional questions.
- List of questions may change based on earlier interviews—some new questions, some questions dropped.

Interview details

Questions

- Biographical questions
- Descriptive questions
- Structural questions
- Contrast questions

Interview details

Questions to Avoid

- Typically have one word or yes/no type answers.
- Directly asking age, income or other private questions
- Two questions in one that may have different answers.

Example: "do you think that students should have more classes about history and culture?"

- Avoid leading questions.

Example: You like coming to this university. Don't You?

Interview details

Tips related to Questions

- Affectively worded questions.

Example: Do you agree with the effectiveness of current lockdown?

- Probing Questions

When the answer is too short, or not specific.

Example : How do you feel about the lockdown? Answer—OK.

Probe—What do you mean by OK? Probe—Can you tell me about your positive/negative experience related to this lockdown?

- Echo their answer with an even shorter response and then ask if they can say more about it.

Interview details

Before Interview

Pretesting your questions

Interview someone in your group

Purpose:

- Have additional questions or prompts about what was clear/unclear
- What did you ask that was unnecessary
- Any ideas for other questions you should ask
- Any ideas on the order or sequencing of questions

Interview details

During Interview

- Please remember it is not conversation. You let the interviewee talk.
- Recording device is working. Audio only.
- Try to choose a quiet place to do the interview
- Remember to ask all questions

Interview details

After Interview

- Improving the flow of questions or new probing or additional questions.
- Checking the quality of recording and save them into online drive.

Transcription Software : Ms-Word – Online version,
<https://otter.ai/>, Trint.com, MS-TEAM caption Feature, there are
apps for iPhone.

Interview details

Video Illustration of Interview Guide

Video Link

<http://rajibulhasan.com/?p=52543>

Methodology

- Some Advantages of using semi-structures interviews for your research.
- Numbers of interviews conducted.
- Duration of interviews on average.
- How did you conduct the interviews? Face to face or Ms-Team or skype
- Why conducting interviews with consumers or employees were appropriate for your research.
- How did you analyze the interview data?
(<http://rajibulhasan.com/?p=694>) you can mention some steps mentioned in this video.

Qualitative analysis of interview data

A basic step-by-step guide

© Kent Löfgren, Sweden

Findings

Findings

- Discuss your findings based on the Label of your categories (To understand what is label of your categories, please watch- from 4:06 minute of the video- <http://rajibulhasan.com/?p=694>)
- You can draw a figure to summarize your results.
- Discuss the categories.

Survey Method

Resources:

Understanding measurement scales – Constructs and Items.

<https://scales4research.com/innovation-marketing-and-business-scales-search-engine>

Other variables

You can use google form or qualtrics for conducting survey .