

MILAD HOUR

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EDUCATION *Ph.D. Candidate, Management Science* 2018 - present
University of Wisconsin - Milwaukee

- Advisor: Purushottam Papatla
- Anticipated Graduation: May 2023
- Major in Marketing
- Minor in Information Systems

MBA 2009 - 2013
Kharazmi University, Tehran, Iran

B.Sc., Metallurgical Engineering 2004 - 2009
Sharif University of Technology, Tehran, Iran

**ACADEMIC
WORK
EXPERIENCE** *University of Wisconsin-Milwaukee*
Instructure 2020 - present

- B2B Sales and Marketing; Undergraduate; Online and In-Person; Last Eval: 4.71
- Marketing Research; Undergraduate; Online; Summer 2022
- Holder of the Badge of Completion for UWM's Online and Blended Teaching Program

Teaching Assistant 2019 - 2020
Supervisor: Grace Ambrose

Project Assistant 2018 - 2019
Supervisors: Amit Bhatnagar, Sanjoy Ghose

**NON-
ACADEMIC
WORK** *Vistabest (UPVC Window and Door Profile Producer), Tehran, Iran* 2012-2018
Market Research Senior Expert

EXPERIENCE *Golrang Industrial Group (Holding), Tehran, Iran* 2011-2012
Marketing Expert

**WORKING
PAPERS** **What is Viral might not be Engaging: *How, What, and Who* of News and *Audience Engagement***
M. Hour, P. Papatla, 2022
Manuscript in development for submission to Marketing Science (Summer 2022)

Two Essays on *Audience Engagement* in Video Advertising: The Effect of Inflation
M. Hour, P. Papatla, (research in progress)

The Effect of Size of Mobile Apps on User Satisfaction

M. Hour, A. Bhatnagar, 2022

Submitted to Marketing Letters (July 7, 2022)

RESEARCH INTERESTS

Audience Engagement
Online Consumer Behavior
Digital Marketing
Advertising
Unstructured Data

SKILLS

Python and R Programming
Unstructured Data Analysis
Natural Language Processing
Machine Learning
Web Crawling and Scraping
Twitter API
Google Cloud NLP API
UNIX Shell Scripting (basics)

HONORS

AMA-Sheth Foundation Doctoral Consortium Fellow, 2022
University of Wisconsin-Milwaukee Chancellor's Graduate Student Award, 2018-2021
Ranked in the top 1% in the Iranian National University Entrance Exam for the MBA degree, 2009
Ranked in the top 0.4% in the Iranian National University Entrance Exam for the undergraduate degree, 2004

REFEREES

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What is Viral might not be Engaging: *How, What, and Who* of News and Audience Engagement

M. Hour, P. Papatla, 2022

Abstract: An ad banner next to a news story has a higher chance of being viewed if readers take more time on the news page. Readers spend more time on news pages when they are engaged with the news content. Accordingly, advertisers looking for attention should insert their ad banners next to engaging news articles. Reader engagement is also important for Online Publishers of News (*OPN's*) since it increases their income derived from both subscribers and advertisers. To investigate reader engagement, referring to a classic theoretical framework offered by Dichter in 1966, we consider news outlets as parent brands and news articles as products. Hence, comments left for news articles are like word-of-mouth. The number of comments indicates reader engagement with the article. This study focuses on *how* the news article is written, *what* the article is about, and *who* is the author of the article and investigates their effects on reader engagement. About 41,000 news articles published in eight outlets from national to local newspapers covering the range of left, center, and right media biases are selected. To find *how* the article is written, with the help of machine learning techniques or a combination of machine learning and rule-based methods, we extract content features including eight emotions (anger, anticipation, disgust, fear, joy, sadness, surprise, and trust), sentiment, certainty, and concreteness, as well as their variations through the content. To find *what* the article is about, with the help of Google NLP API and Google Trends, we detect topics of news articles and Google trends of the keywords in each topic. To find *who* is the author of the article and the online publisher, we consider authors and the size of newspapers. Authors' visibility on social media and the average score for content features in previously published articles written by authors are included in the model to capture the effect of authors and their writing styles. Applying the hierarchical Bayesian model through 100 samples in our training process with the help of *high-performance computing*, we come up with reliable results with an out-of-sample robustness check with about 18,000 news articles published in five newspapers. This study confirms that stimulants of virality are different from those of engagement. Anticipation, joy, positivity, and concreteness negatively affect engagement while surprise and trust have positive relationships with engagement. Volatility in anger can increase engagement. Longer articles, as well as articles published on the weekend, are also more engaging. National newspapers publish more engaging news articles. Authors with better visibility in social media are successful in attracting engagement. Authors who have attracted a greater number of comments or authors who have written surprising articles are more likely to engage readers in their current articles. Articles with topics different from the authors' most repeated topics are more engaging. Topics like politics or health are more engaging, but a topic like games is less engaging. Finally, through another analysis of quarters of the news content to have a managerial insight, some emotions are recommended for the beginning and the end of the article and some are not.

Keywords: Reader Engagement; Emotions; News; Natural Language Processing; Hierarchical Bayes

Two Essays on Audience Engagement in Video Advertising: The Effect of Inflation

M. Hour, P. Papatla (research in progress)

Inflation in the United States was 8.6% in June 2022 – a level last experienced by consumers four decades ago in 1982 (The Wall Street Journal June 11, 2022). An important characteristic of the 2022 inflation was that it was a sustained feature of the economy for the entire year since June 2021. Rather than waiting for inflation to subside, marketers, therefore, factored it into their product and pricing decisions by 2022. For instance, the mineral water brand La Croix reduced the number of cans in a pack to 8 from 12, effectively increasing price by 33%. Similarly, the price of the Kleenex brand of tissues was raised by more than 16%. Both firms and consumers also expect inflation and price increases to continue through at least early 2023 (Federal Reserve Bank April 11, 2022). Firms may therefore need to continue raising prices but have little experience in how to sustain consumer interest in their brands when they are forced to do so. More generally, firms have few insights in this regard if high inflation over long periods were to repeat in the future. This is the issue that we study through two empirical investigations of how advertising should be adapted during periods of high inflation and consequent price increases. We note that the specific format that we investigate is television advertising which may therefore limit the applicability of our findings to that format.

The first of the two essays on how brands should adapt to inflationary price increases studies ads whose creatives are new or were revised by the advertised brands following price increases. We ask the question: "Are there distinct features of such ads that are associated with lower zapping by television audiences indicating higher engagement with those ads?" Specifically, we focus on identifying the message, visual, and emotional content of ads that are zapped less than other such ads. Data for the investigation is provided by *iSpot.tv* and includes several brands and categories in which new advertising creatives were aired following price increases. Several fixed-effects in our investigation control for the unique characteristics of brands, categories, the times at which the creatives were aired, and the characteristics of the television networks and programs they were aired in.

The second essay addresses a different question related to engagement, i.e., the characteristics of ads that are able to stimulate a higher intent to purchase the advertised brands. Specifically, the focal question in this essay is: "Are there distinct features of new or revised creatives by brands which increased their prices that result in a higher intent to purchase?" Data for this investigation is also provided by *iSpot.tv's Ace Metrix* division which conducts nationally representative surveys on audience's emotional and purchase intent responses to new ads. This investigation also includes several brands and categories which aired new advertising creatives following price increases and also includes similar fixed-effects as in the first essay.

The Effect of Size of Mobile Apps on User Satisfaction

M. Hour, A. Bhatnagar, 2022

Abstract: When app developers add features to or improve the quality of an app, its size increases. While consumers appreciate more features and higher quality, they are likely to dislike that the installation requires additional space and more time. This study investigated about 14,000 applications in the Apple App Store to find out how user satisfaction and rating volume change as app size increases. A downward concave quadratic relationship was found for each model that confirms the existence of an optimum size. We found that this relationship was moderated by two factors,

type of app and time. First, this optimum size was smaller for utilitarian apps, which relate to functionality, compared to hedonic apps, which are associated with feelings. Second, we collected and analyzed the data in two waves to determine if the optimum size changes with time. While the relationships were similar, the optimum sizes increased after a year. As a robustness check, we investigated reviews for these apps. Sentiment analysis for reviews regarding the size of the application confirmed our findings for hedonic apps but not for utilitarian ones.

Keywords: Internet of Things (IoT); Apple App Store; file size; rating volume; user satisfaction; sentiment analysis

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