

Tracking Media Metrics Over Time

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Abstract

Knowing that media tracking is a primary way in which public relations professionals measure the success of their public relations efforts, this paper explored whether commonly measured media metrics like frequency, reach, share of voice, and tone increased or decreased over time for five companies. The findings revealed that these metrics did not statistically significantly increase over time. Implications for public relations professionals about how to make sense of media metrics by extracting insights from data, rather than solely relying on increases in these metrics, are provided.

Keywords: media analysis, public relations measurement, public relations evaluation

Tracking Media Metrics Over Time

Measuring media coverage has long been a primary way in which public relations professionals gauge the success of their public relations efforts (Michaelson & Macleod, 2007; Watson, 2012). Media measurement commonly consists of measuring the number of media placements about a company or the potential number of people who were exposed to those media placements (Watson & Noble, 2014). Academic and professional research studies have consistently found that public relations professionals measure the success of their public relations efforts by reflecting on output—or outtake-level media metrics (PR News, 2019; Buhmann et al., 2018; Schriener et al., 2017; Zerfass et al., 2017), including but not limited to frequency (the number of articles in media about a company), reach (the number of individuals exposed to articles in media about a company), share of voice (the amount of a company’s media coverage in relation to its competitors), or tone (whether a company’s media coverage is positive, negative, or neutral).

Media metrics such as these are an important step in the public relations measurement process as exemplified by several public relations measurement models (Cutlip et al., 1985; Lindenmann, 1993; AMEC, 2016). However, public relations measurement scholars and professional organizations have stated that further content analysis of media that accounts for whether key messages were relayed in media coverage (Michaelson et al., 2017) and more qualitative measures like the credibility of the medium the media placement appeared in (AMEC, 2015) is necessary. When properly used, media content analysis can assist with communication planning, strategy, and effectiveness (Michaelson & Stacks, 2014).

The difference between tracking media metrics and analyzing media coverage in order to extract insights elucidates the difference between public relations measurement and evaluation.

While measurement is concerned with collecting and counting data in a quantifiable or numerical manner (Lindenmann, 2003), evaluation is more subjective and requires interpretation and determination of whether communication activities are helping an organization meet its goals (Buhmann & Likely, 2018; Lindenmann, 2003). Unfortunately, it is not uncommon for public relations professionals to stop at the activity-level measurement stage, exemplifying what has been referred to as the public relations measurement stasis in which professionals focus on output-level metrics (Macnamara, 2018). While recent studies have attempted to explain the public relations measurement stasis (Nothhaft & Stensson, 2019; Romenti et al., 2019), the purpose of this research was to evaluate the effects of the measurement stasis. In other words, knowing that public relations professionals often look to media metrics to measure the success of their public relations activities, this study tracked companies' media metrics over time to determine whether they increased or decreased. The results of this study demonstrated that these media metrics did not statistically significantly increase over time. In other words, if public relations professionals rely on increases in these media metrics in order to measure the success of their public relations efforts, they may struggle to demonstrate improvement over time. In addition to tracking these media metrics, further analysis of media coverage in which professionals extract insights about their companies, competitors, and potential opportunities and threats is necessary.

Literature Review

Importance of Media Coverage and Media Measurement in the Profession

Public relations professionals have relied on the use of media measurement for decades, beginning in the 20th century when publicity agencies arose in the United States and began monitoring press coverage for clients (Watson, 2012). There are several benefits of media

measurement: it can serve as a proxy for public perception, it is relatively inexpensive and accessible, and it has been used to demonstrate the value or influence of public relations activities (Eisenmann, 2012). For example, when public relations professionals launch campaigns, it is common to measure how far and wide messages reached in order to gauge how well the campaign performed (Laskin, 2016).

Though public relations professionals today also use social media to engage in two-way conversation with stakeholders, they continue to value traditional media for its ability to assist with public relations responsibilities, including measuring public relations programs (Sommerfeldt et al., 2019). According to a 2019 Cision and PR Week Global Communications Report, in spite of new channels for storytelling, 61 percent of public relations professionals said their engagement efforts are focused on the use of journalists and traditional media. In addition, when asked about which tools are important to their work, communication professionals ranked media monitoring tools like Cision and Zignal Labs as important tools for use today and tomorrow (USC Annenberg Center for Public Relations, 2019). From a company's perspective, the media's ability to expose a company's key messages to a larger audience make it valuable (Howes & Sallot, 2014). From an audience perspective, the media provide content that has been vetted through the journalistic process and allow individuals to make sense of events (Weiner & Kochar, 2016).

Types of Media Metrics

Common and accepted media metrics among public relations professionals include the number of earned media placements published in a given period of time (also referred to as hits, volume, frequency, or clip counts), ratio of positive or negative sentiment, and volume of earned media versus competitors, otherwise known as share of voice (PR News, 2019). Likewise,

common terms used in academic measurement and evaluation literature include clip counts, reach, share of voice, and sentiment (Macnamara, 2014a). The Dictionary of Public Relations Measurement and Research (Stacks & Bowen, 2013) defines these common media metrics as follows:

- Reach is “a metric that estimates the size of an audience exposed to a communication based on some audited system” (p. 26).
- Share of voice (which the dictionary refers to as “share of ink” when discussing press coverage rather than radio/television coverage) is a “measurement of the total press coverage found in articles or mentions devoted to a particular industry or topic as analyzed to determine what percent of outputs or opportunities to see is devoted to a client or product” (p. 29).
- Sentiment is “a metric that assesses and determines the tone of a public relations output; a ratio of positive to negative; typically evaluated as positive, neutral, or negative” (p. 29).

These metrics are limited in that they focus on the intermediary of a message (the media) and do not account for how audiences feel about the message or what they did after they saw it (Michaelson & Macleod, 2007). However, the insights that can be extracted from media measurement are an important part of the public relations process and can connect to business outcomes (Macnamara, 2014c).

In the past, media measurement was dominated by calculating advertising value equivalency, also known as AVE, which is a metric used to calculate the financial value of an earned media placement. However, AVE has been criticized by both academics and professionals because it does not take into account whether key messages were included in media placements or whether the media placements were positive or negative in tone. Moreover, those

who calculate AVE often calculate the cost of the earned media placement if it were a paid advertisement and then multiply that financial value by arbitrary numbers that have ranged from 2.5 to 8 (Weiner & Bartholomew, 2006). Because there is a lack of justification that earned media is more valuable than paid media, the use of multipliers is unwarranted (Watson, 2013). In fact, professional organizations such as the International Association for the Measurement and Evaluation of Communication (AMEC) have stated that AVE does not measure the value of public relations or earned media and have recommended that public relations professionals refrain from using multipliers (AMEC, n.d.).

Levels of Public Relations Metrics

Public relations metrics fall into three categories: outputs, outtakes, and outcomes. In public relations measurement and evaluation literature, basic output metrics include counts of press clippings, target audience reach, and share of voice; outtake-level metrics, which take into account audience action, include views, clickthroughs, and tone; outcome-level metrics, which are the most desired public relations effects yet the most difficult to measure, include awareness, attitudes, trust, reputation, and relationships (Macnamara, 2014a). According to public relations measurement models such as the preparation, implementation, and impact (PII) model (Cutlip et al., 1985), the public relations effectiveness yardstick (Lindenmann, 1993), and the AMEC integrated evaluation framework (AMEC, 2016), measuring public relations activities such as media placements is an essential part of the public relations measurement process; however, these are the most surface-level public relations metrics. Further measurement of whether messages were received, comprehended, and acted upon should be of utmost importance to public relations professionals. In other words, process indicators are intended for use in the short term to inform public relations professionals about whether their programs are contributing to

long-term effects, such as improved stakeholder relationships, trust, or reputation (Hon & Grunig, 1999). Yet, public relations professionals often rely on output-level metrics to measure how they are performing or perceive positive coverage in media as evidence of their success or proof of the value of public relations (Buhmann et al., 2018; Buhmann & Bronn, 2018; Zerfass et al., 2017). Even award-winning public relations campaigns emphasize these metrics (Schriner et al., 2017). Recognizing this measurement challenge in the profession, the Barcelona Principles recommend that public relations professionals measure not only quantity but also quality of media coverage. Stating that “overall clip counts and general impressions are generally meaningless,” the Barcelona Principles explain that traditional media measurement should also account for:

impressions among the stakeholder or target audience, quality of the media coverage including, but not limited to tone, credibility and relevance of the medium to the stakeholder or audience, message delivery, inclusions of a third-party or company spokesperson, and prominence as relevant to the medium (AMEC, 2015, p. 12).

Knowing that public relations professionals often rely on media measurement to evaluate the success of their public relations efforts, the purpose of this research was to track companies’ media metrics over time to determine whether they increased or decreased over the years.

RQ: Do companies’ media metrics increase or decrease over time?

Method

Sampling

To analyze trends of media metrics over time, five companies were selected. The five companies were clients of the research firm Prime Research and met three considerations for selection in this study. First, the companies must have received media analysis reports from Prime Research for at least 12 consecutive quarters (three years). Second, the companies’ metrics must have remained consistent throughout that date range. Third, the companies must have

tracked at least two common media metrics, such as frequency, reach, tone, or share of voice (Bajalia, 2020; PR News, 2019). Once these companies were identified, their quarterly media analysis reports were collected. It is important to note that many Prime Research clients receive media analysis reports that also include more detailed metrics, such as media outlet the coverage appeared in and which corporate spokespeople were quoted in the articles. However, this study analyzed only clients' numerical metrics that (A) were measured over at least three years (B) have been measured consistently over time and (C) are commonly measured by public relations professionals. Essentially, this study sought to determine what results public relations professionals might expect over time if they focus only on tracking these common media metrics.

Procedure

Each quarterly media analysis report was collected and analyzed to identify the media metrics the companies measured consistently over a minimum of three years. When measured over time, metrics analyzed for this study included frequency (the number of articles about the company in media during a given time period), tone (whether the articles about the company were positive, negative, or neutral as determined by Prime Research media analysts and typically reported as a percentage or score), reach-related metrics (such as impressions or probable audience, which measure the number or potential number of individuals who were exposed to articles about the company), and share of voice (the amount of the company's media coverage in relation to its competitors' media coverage). The health insurance company included in the study also measured PR Recall and Net Reach over time. PR Recall is a proprietary metric that incorporates prominence factors (i.e. headline mentions, dominance, and visuals) and tonality. It is measured on a scale from -100% to +100%. A score of -100 indicates that a company was the

only one discussed in the article, included a headline mention, and was discussed very negatively. Net Reach is a proprietary metric that incorporates Reach (potential audience) and PR Recall. Given that these two proprietary metrics encompass common media metrics such as reach and tone, they were included in the analysis. Companies and their metrics tracked are provided in Table 1.

Table 1

Companies and Media Metrics Tracked

Company	Media Metrics Tracked
Health Insurance Company	Frequency PR Recall Net Reach Tone
Automotive Company 1	Frequency Impressions Tone Share of voice
Investment Management Company	Frequency Tone Reach
Automotive Company 2	Frequency Reach Share of voice Tone
Automotive Company 3	Frequency Reach Tone

Tableau v.2020.2 was used to construct graphs that show metrics' progress over time. Tableau trend analyses allowed the researcher to determine whether changes in metrics over time were statistically significant, as following the protocol described by Salgador (2018).

Results

The purpose of this research was to track companies' media metrics to determine whether they increased or decreased over time. Table 2 below provides the results of the trend analyses for each company's metrics over time. Metrics that are highlighted show a statistically significant change over time.

Table 2

Companies, Metrics Tracked, and Correlation Coefficients

Company	Metric	B-coefficient	SE	P-value
Health Company	Frequency	-.22	.18	.23
	PR Recall	-.00004*	.00002	.01
	Net Reach	- 63716.2	300221	.83
	Tone	.00005	.00005	.39
Automotive Company 1	Frequency	.09	.10	.37
	Impressions	12078.1	7835.7	.14
	Tone	.0002828	.0001581	.09
	Share of voice	-.000024*	.0000097	.02
Investment Company	Frequency	-.45***	.11	.0005
	Tone	.00002	.000014	.18
	Reach	50737.2	34789.8	.16
Automotive Company 2	Frequency	.06	.12	.63
	Reach	-65749.3	34320.9	.07
	Share of voice	-.0001***	.00002	.002
	Tone	-.000003	.00023	.99
Automotive Company 3	Frequency	-.42	.44	.36
	Reach	-434133*	196206	.04
	Tone	.00014	.00014	.26

The health insurance company's metrics (frequency, PR Recall, Net Reach, and tone) were tracked from 2014 to 2019. Only one metric's change over time, PR Recall, was statistically significant. This metric had a statistically significant decrease over time (see Figure 1). Automotive company 1's metrics (frequency, impressions, tone, and share of voice) were tracked from 2014 to 2019. Only one metric's change over time, share of voice, was statistically

significant. This metric had a statistically significant decrease over time (see Figure 2). The investment management company's metrics (frequency, tone, and reach) were tracked from 2013 to 2019. Only one metric's change over time, frequency, was statistically significant. This metric had a statistically significant decrease over time (see Figure 3). Automotive company 2's metrics (frequency, reach, share of voice, and tone) were tracked from 2015 to 2019. Only one metric's change over time, share of voice, was statistically significant. This metric had a statistically significant decrease over time (see Figure 4). Automotive company 3's metrics (frequency, reach, and tone) were tracked from 2016 to 2019. Only one metric's change over time, reach, was statistically significant. This metric had a statistically significant decrease over time (see Figure 5). While some trend lines appeared to show increases over time on first glance, those trend lines did not reach statistical significance. Two potential explanations might explain these results. First, the models might be substantially underpowered due to a small number of observations in each dataset (the largest $n = 22$, investment management company). Second, changes in media attention might be attributed not to the companies in question specifically but to their industries in general.

To test these alternative explanations, the researcher gathered the health insurance company's three largest competitors' frequency, Net Reach, and PR Recall metrics over the same years (This clients' reports also included media metrics for these competitors.) Plus, this health insurance company received not only quarterly reports but also monthly media tracking reports from Prime Research, which provided more data points for analysis. Competitor performance was adjusted for by subtracting the average monthly competitor frequency, Net Reach, and PR Recall metrics from the health insurance company's monthly frequency, Net Reach, and PR Recall metrics. The data were explored for outliers, which resulted in the removal

of one data point (January 2014). The final sample contained data for 66 months in total from February 2014 to July 2019. July 2019 was selected as a cut-off point because the company's account was later moved to a different analytics platform, which might have resulted in slight changes in methodology. The researcher repeated trend analysis with the health insurance company and its competitors' monthly data with the modifications described above (see Figure 6). In terms of frequency, the data indicated a statistically significant decline in the client's volume over time ($b = -.08$, $SE = .03$, $p < .01$). The model explained 12.7% of the variance in how many mentions the health insurance company receives each month. In terms of Net Reach, the decline was also statistically significant ($b = -168272$, $SE = 61012$, $p < .01$). The model explained 10.6% of the variance in the health insurance company's monthly performance.

Discussion

The purpose of this research was to track company's media metrics to determine whether they increased or decreased over time. For all five companies, the results of these trend analyses indicated that consistent tracking of common media metrics did not predict statistically significant increases in those metrics over time. In other words, if public relations professionals rely on increases in common media metrics to demonstrate the success of their public relations efforts and do not take part in the evaluation process to extract insights as well, they may set themselves up for disappointment or struggle to demonstrate improvement over time. The findings of this study provide implications for public relations professionals about tracking media measurement, exemplifying the importance of not approaching measurement from a backward looking "What did we do?" or "How many did we get?" approach but from a forward looking "What does this mean?" approach. Stronger metrics and the utilization of insights generated through strategic monitoring of media coverage are a key challenge in the public

relations profession (Zerfass et al., 2017) but are worthwhile in that they allow public relations professionals to contribute more meaningful and actionable recommendations for their organizations.

Reflecting on the findings of this research, it is important that public relations professionals do not perceive media analysis reports as report cards of their efforts. If public relations professionals approach measurement this way, the results of these trend analyses (or any form of public relations measurement that reveal a decline in metrics over time) may be discouraging. Public relations measurement experts have described this “win-lose communications measurement mentality” or “fear of finding out” as detrimental to public relations success, explaining:

It’s not about winning the campaign or getting more hits. It’s about learning from the data what it takes to make your organization more successful—whether that is sales, revenues, efficiencies, resistance to crises, or better relationships with customers. The point is that good measurement and evaluation doesn’t pass judgement on failure or success. It guides you to success, it shows you how to turn all those red and yellow lights to green (Paine, 2019, para. 7-8).

Therefore, more telling than tracking whether an organization is garnering more media hits over time or reaching more people, public relations professionals should take part in media content analysis, which will allow them to extract insights from measurement reports and use those insights to inform future communication strategy. Such insights might include gaps in the competition, thought leadership opportunities, or changes in stakeholders’ attitudes (Macnamara, 2014b). The number of articles published about a company do not necessarily create meaning (Macnamara, 2005). Instead, public relations professionals should explain to companies *why* particular media placements are useful (PR News, 2020). For instance, perhaps a company experienced a decline in the number of media placements over time, but the number of media placements in media outlets that the company’s target audience reads has increased. This insight

would be important to note but would be overlooked if professionals simply looked at surface-level key performance indicators and neglected to dig further. Other insights public relations professionals might look for when evaluating media include whether key messages that support that company's narrative were relayed in media coverage, which would demonstrate that media relations professionals were successful at their jobs (Stockel, 2018), or *why* there was a decrease in tone from one quarter to the next. For example, perhaps there is a product issue that made its way into a news article. Public relations professionals who are tracking media coverage may be able to spot issues such as these and share them with their companies. Research has confirmed that chief communication officers with successful measurement and evaluation programs focus on turning numbers into findings for action (Swenson et al., 2018). In addition to tracking traditional (and social) media metrics, Prime Research media analysis reports provide companies with information such as what outlets companies' media coverage appeared in, what content was included in the articles, which articles are receiving the most attention, and whether company spokespeople were included in articles to provide deeper explanation behind media metrics.

The findings of this research reiterate the limitations of looking only at output—and outtake-level metrics, which research has addressed prior to this study (Michaelson et al., 2017; Nothhaft & Stensson, 2019). In addition to tracking these metrics, public relations professionals should consider ways in which they can calculate return on investment of their media relations efforts (Likely et al., 2006). Recent advances in public relations measurement technology, such as attribution analysis, make this once seemingly impossible process a reality. Attribution analysis technology can track digital news items about a company to what a person did after they were exposed to that news article (Weiner, 2018). In this way, public relations professionals can determine whether exposure to an earned media placement led an individual to download a

company brochure, request more information, or make a purchase, ultimately connecting public relations efforts to business outcomes.

It is also interesting that several clients used the same media metrics quarter after quarter and year after year. Though some clients used more sophisticated metrics such as PR Recall or Net Reach, which account for metrics like prominence, tracking the number of media placements about their companies or the number of people potentially reached was common. The consistent use of these output-level metrics reflects what much public relations literature has described as the public relations measurement stasis (Macnamara & Zerfass, 2016), meaning that public relations professionals have long focused on output-level metrics such as volume, reach, or hits. Therefore, in addition to extracting insights from media analysis, public relations professionals must not neglect the power of conducting research such as surveys or focus groups, which are vital components of the public relations measurement and evaluation process (Zerfass et al., 2017). Rather than accepting publicity as the “results” of public relations programs, professionals should use research “to identify public relations problems, to keep programs relevant to those problems, and to make judgements of programs’ successes and failures” (Broom & Dozier, 1983, p. 1). Without knowing how audiences feel about corporate messaging, campaigns, or media placements, it is difficult to truly evaluate how well public relations activities are performing.

The findings of this study also raise an issue that other scholars have previously addressed: Perhaps public relations professionals have long been looking at measurement from the wrong perspective. If management is most concerned with the impact of public relations on the organization and insights that can assist with future decision making, public relations professionals must use public relations measurement to aid them in their roles as counselors to management rather than focusing on outputs, “which appear to be the current obsessions of many

practitioners” (Gregory & Macnamara, 2019, p. 9). Common media metrics like frequency, volume, and share of voice alone may not stand the test of time. However, using those metrics plus media content analysis and stakeholder research to identify strengths, weaknesses, opportunities, and threats to an organization will allow public relations professionals to provide more purposeful contributions.

Conclusion

The purpose of this research was to determine whether consistent monitoring of media metrics predicted a statistically significant increase in those metrics over time. The findings of this study concluded that there was no statistically significant increase in output-level metrics over time, indicating that if public relations professionals rely on increases in these metrics to measure the success of their public relations efforts, they may be disappointed. The results of this study emphasize the importance of focusing less on the numbers and more on the understandings behind media measurement reports, which are beneficial for both public relations professionals as they plan their communication programs and for senior executives at organizations who have long found output-level public relations metrics to be insufficient in their quest for insights that can impact the success of the organization.

Limitations and Additional Recommendations for Professionals

A few limitations of trend analyses should be noted. First, historical data is of course dated. In the time periods analyzed, these companies experienced various changes in their markets, crises, triumphs, and campaigns that would have influenced their media coverage. However, this limitation again underscores the importance of examining the context surrounding the numbers rather than viewing public relations metrics as scorecards as one’s efforts if the numbers are not increasing over time. Additionally, though the last statistical analysis in this

study accounted for competitor performance, the others did not. In practice, public relations professionals should compare their companies' media metrics over time with their main competitors' media metrics over time. A benchmark analysis such as this would allow professionals to examine how they are comparing to their competitors as well as media trends in their markets more generally (Serbanica et al., 2007). Professionals should also remember to compare more than one metric at a time to better understand trends over time. For example, a decrease in media placements over a specific time period may seem like a negative finding; however, if tone over that time period has become more positive and placements have appeared in key media outlets, professionals may interpret the data differently and have more meaningful information to share with their teams and executives. Lastly, this study looked at only five companies' media metrics over time and, therefore, the findings cannot be generalized. However, the findings demonstrate that reliance on increases in common media metrics as evidence of public relations success would be problematic for the companies included in this study. As an industry, public relations professionals must take media measurement a step further by exploring the narrative behind the numbers.

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Figures

Figure 1

Trends of Health Insurance Company's Media Metrics Over Time

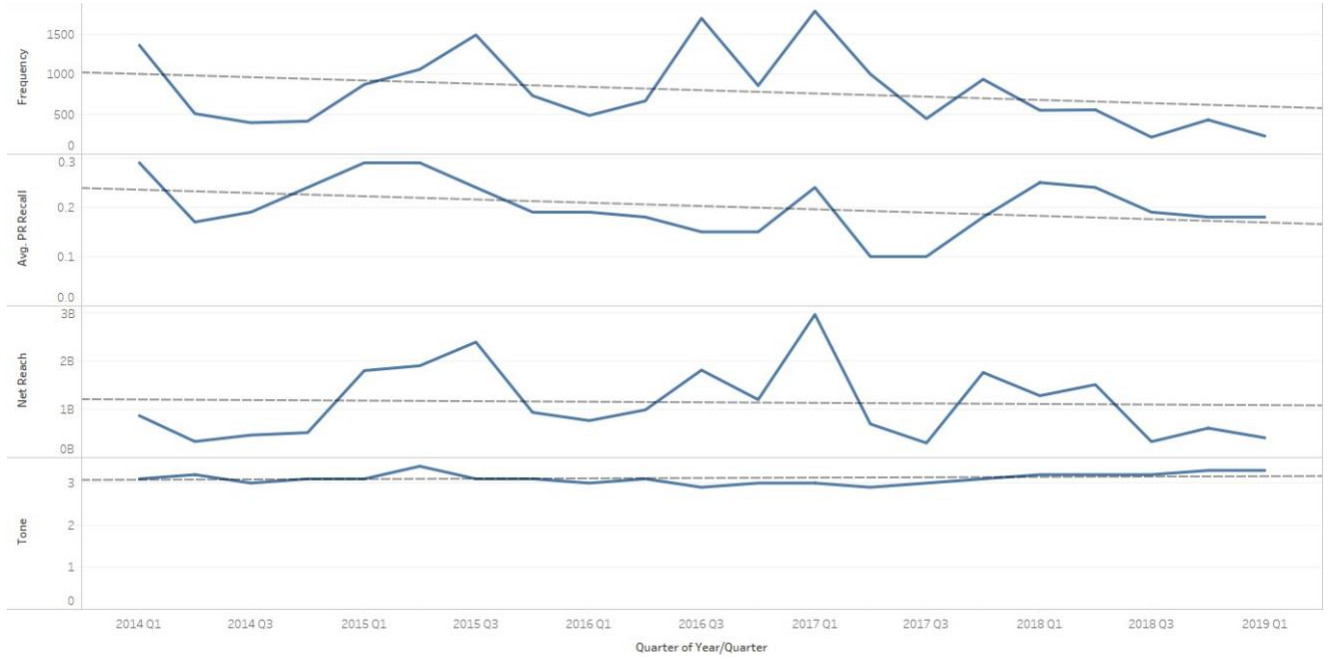


Figure 2

Trends of Automotive Company 1's Media Metrics Over Time

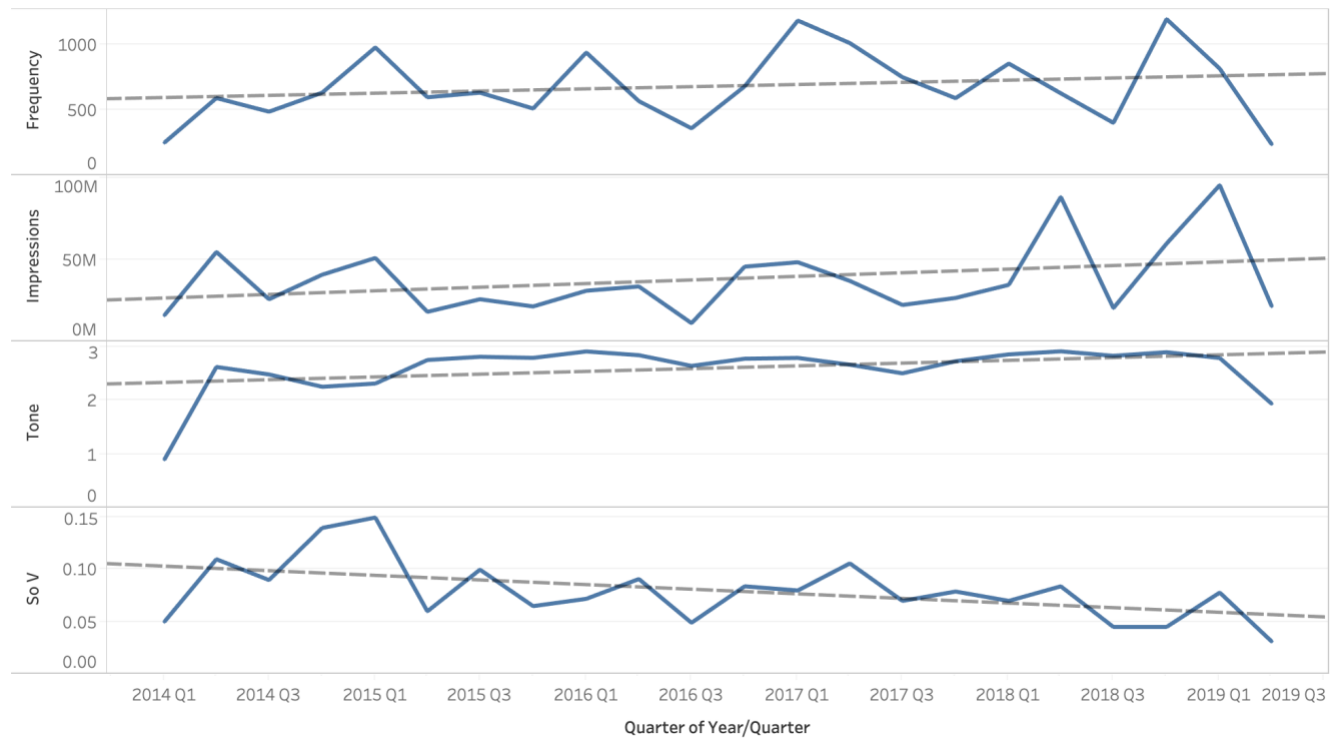


Figure 3

Trends of Investment Management Company's Media Metrics Over Time

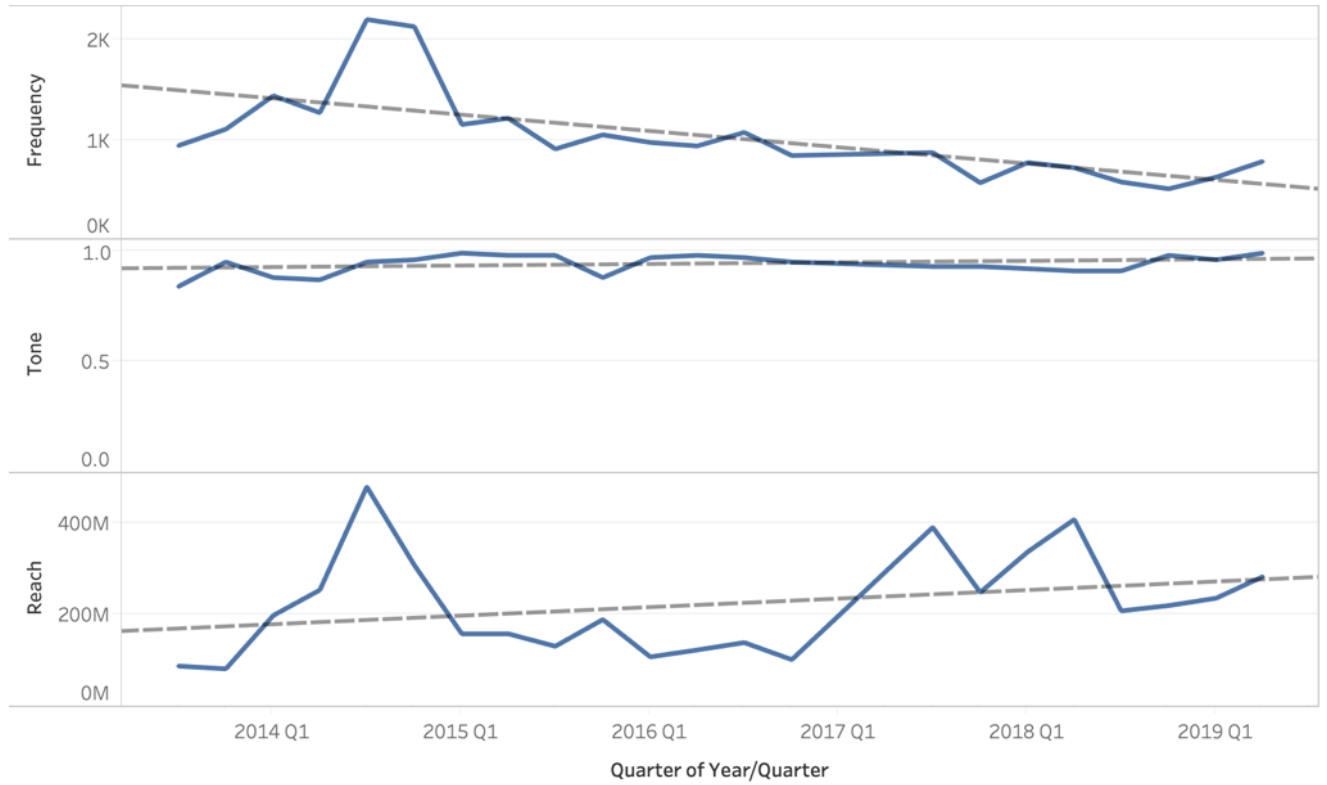


Figure 4

Trends of Automotive Company 2's Media Metrics Over Time

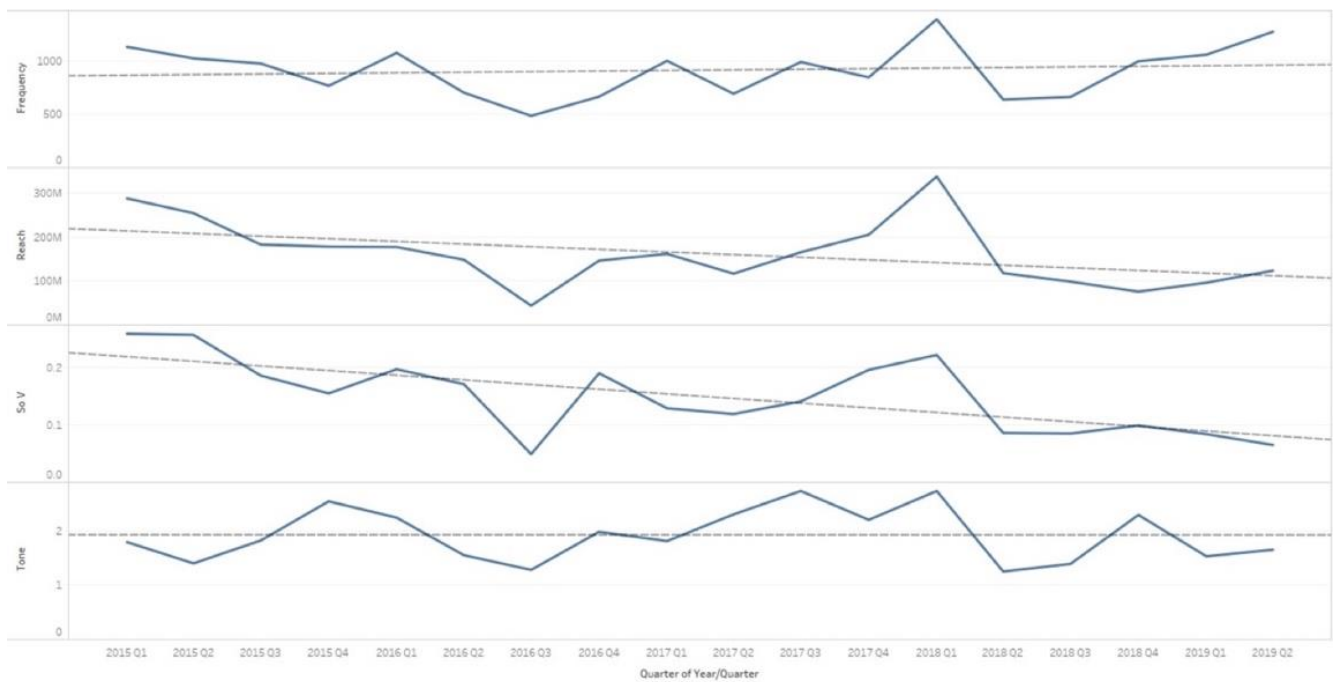


Figure 5

Trends of Automotive Company 3's Media Metrics Over Time

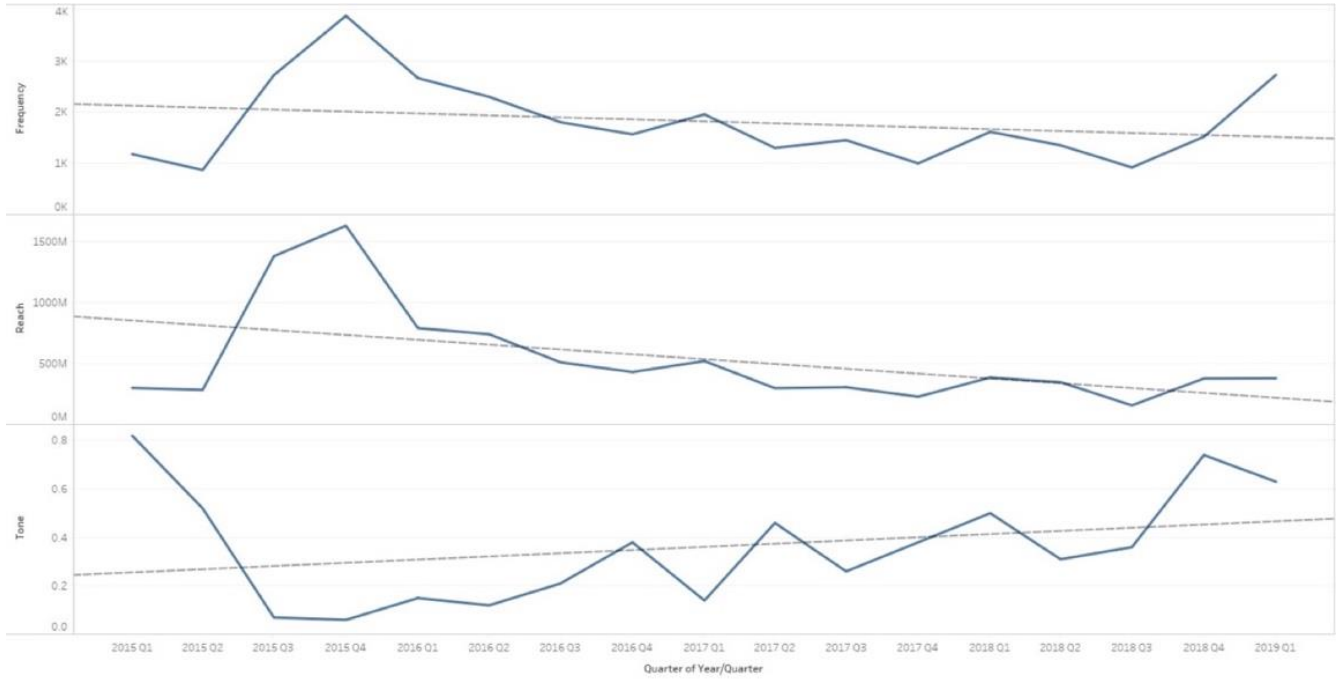


Figure 6

Health Insurance Company's Media Metrics Month by Month, Accounting for Competitor Performance

