



LIMA  
CONSULTING GROUP

**THE ROI OF**

# Marketing Technologies

**By:** Sunny Youn

**With:**

Ray Tran, Paul Lima,  
Sujit Nair, Liana “Li” Evans,  
Matthew Miller

## THE ROI OF

# Marketing Technologies

Most of the marketing technology innovations today use snippets of code, called tags, which are generally inserted into the website's template. The speed at which these solutions are being launched into the marketplace means that there are more marketing technologies being deployed than ever before.

### Methodology

Lima Consulting Group (LCG) and ObservePoint audited the Internet Retailer 100 using ObservePoint's advanced tag auditing solution. Armed with this groundbreaking data, the team of digital marketing analysts and data scientists at LCG applied frequency, cluster, and correlation analysis, and came up with never- before-seen insights about the world's leading Internet Retailers.

### Series Background

This research report is the first tag performance audit of the Internet Retail Top 100 (IR100) from a data efficiency and effectiveness standpoint. The findings indicate that while some organizations are actively establishing and maintaining processes to manage and trust their data, many have yet to establish processes for optimizing data governance, as a means to measure and improve the Return on Marketing Technology (RoMT). By ranking and scoring these top E-commerce sites by their data governance capabilities, brands will be able to gauge whether

money spent on improving sales through tag management is being effectively utilized. Without it, CMOs and web teams may lack the confidence in concluding how data-driven analysis can drive sales results.

### Sneak Peek

- Gain deeper insights on how companies that have a TMS are outperforming those that don't
- Learn best practices about TMS deployments
- Gain insight on the correlation between load times and site overhead

### Key Takeaways

- Senior marketers are willing to pay a premium in order to improve confidence in their data.
- The IR100 is underserved in the quality of their tag implementations
- Companies with tag management systems are reducing load times, JavaScript errors, and data duplication more than those without a TMS
- Pure-player TMSes outperformed the free solutions

# Introduction

By 2017 the CMO will spend more on IT than the CIO[1]. It should not be a surprise that marketers are deploying more marketing technologies than ever before. In an independent audit of the Internet Retailer 100, Lima Consulting Group explored, detected, and discovered almost 2,000 tags, or snippets of code used to improve marketing. These tags are generally sold as Software as a Service (SaaS), deployed by third parties, and have a high degree of interdependencies between each other. Whether or not these systems perform or overlap increases the financial stakes each year. It is our belief that the revolution of Big Data will lead CMOs to carefully measure their Return on Marketing Technologies (RoMT), hence our introduction of the concept of the RoMT to the industry.

What follows are our insights to help CMOs determine ways to calculate their Return on Marketing Technologies as a further means to measure success on software spend from an efficiency (how useful?) and effectiveness (how successful?) standpoint.

Some of the questions we sought to answer were:

- How do companies know if their clickstream data is accurate?
- How confident are firms in using their site reporting data for driving business decisions?
- What steps can marketers take to adopt new digital marketing technologies while mitigating the risks associated with deployment?
- What are some efficiency and effectiveness metrics for web optimization?

## Measuring the Return on your Marketing Technologies (RoMT)

With the proliferation of solutions to optimize conversion including promo & campaign management, segmentation, merchandising,

customer support, and retargeting, there has been a growing need to manage overlapping or possibly conflicting goals that could hinder overall performance. Measuring RoMT starts with a comprehensive understanding of several factors impacting site performance. As an example, 93% of the IR100 do NOT have a Complete Tag presence, meaning tags that are supposed to track the entire site are missing pages (“data leakage”). Another example includes pages where there are tags with duplicate account variables (“data duplication”). In other words, data governance is being compromised and not right-sized.

The 4 Most Common Challenges faced were **Tag Presence Completion, Site Load Time, the Rate of Data Duplication, and the Impact of Technology Overhead** (measured in JavaScript errors & status 200 errors resulting from site redirects, no server found, or no page found 404 errors).



### Completed Tag Presence

93% of IR100 Sites had incomplete implementation of all of their tags



### Site Load Time

4.54% faster load time for companies with TMS



### Rate of Duplication

47.6% higher rate of duplication\* for companies without TMS



### Javascript Errors

9% more Javascript errors for companies without TMS

The majority of IR100 sites had at least 4% of their pages that were missing tags. This may sound minimal, but on a site with 300,000 pages, it translates to 12,000 pages that are unaccounted for.

\*the number of times a page had more than one tag with the same account variable

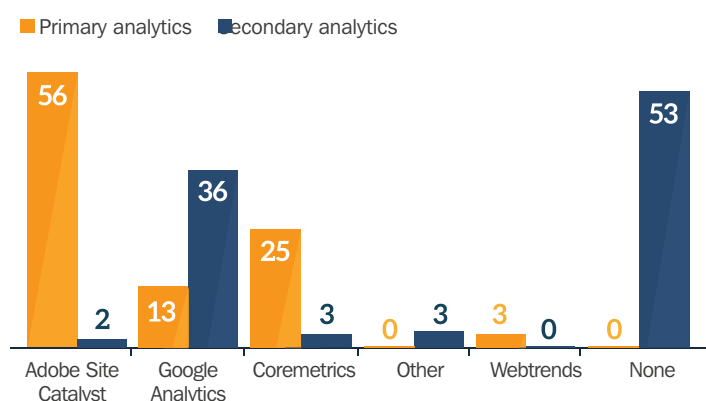
# Insight #1

## Senior marketers are willing to pay a premium in order to improve confidence in their data

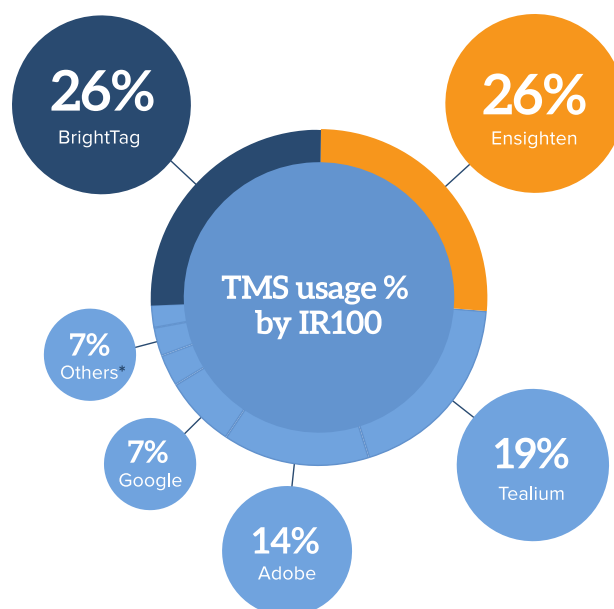
### Free vs. Paid

In our research, we found as many as 1/3 of the IR100 installed Google Analytics. However, the percentage of sites that use Google Analytics as a primary platform drops to just over 10%. E-marketers have chosen to deploy paid analytics solutions 6.5x more than Google Analytics (GA). Paid solutions generally have more flexibility, allow marketers to gain deeper consumer insights, and are generally part of marketing clouds that offer several other capabilities beyond GA's capability.

### Comparison of Web Analytics Usage by Internet Retailer 100



The same holds true for paid vs. non-paid tag management systems.

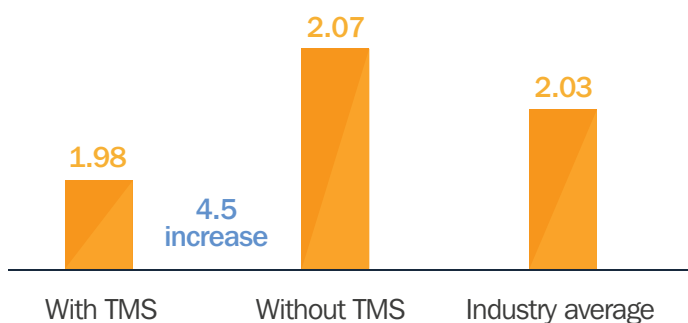


## Insight #2

# Those with TMSes experience faster load times, lower javascript errors and data duplication, and improved site compliance

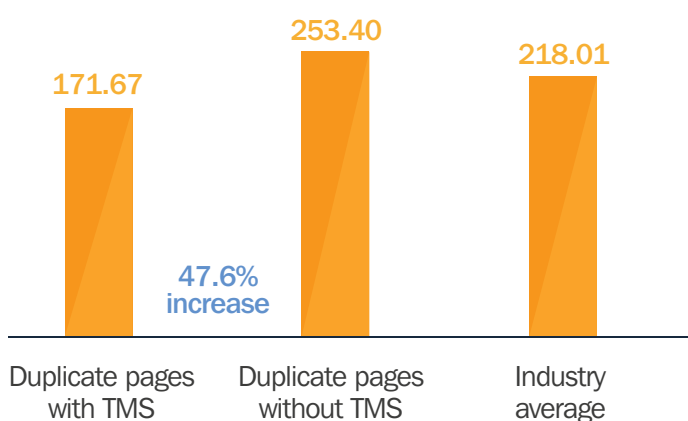
### Haves vs. Have-nots

#### Average Page Load Times (seconds)



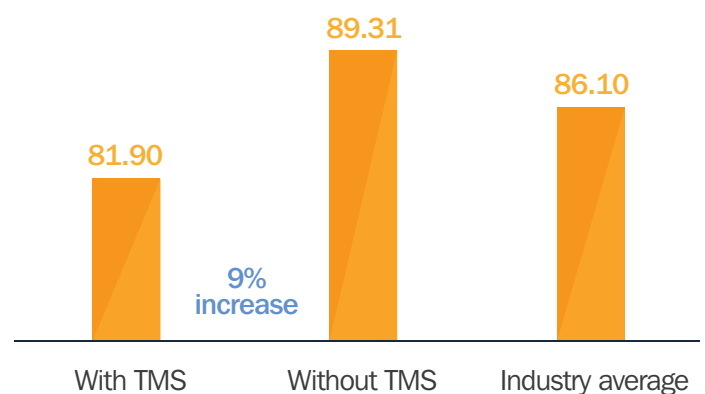
Based on a detection of any **Tag Management Solution (TMS)**, we could see some remarkable differences in the speed of websites that had TMS systems. Across all major efficiency metrics for the impact of technology overhead, we saw the a range of faster load times between 4% to 50% faster in sites with TMS versus sites without TMS.

#### Rate of Data Duplication (# of pages)



In Rate of Data duplication, we saw that there was a range of higher data duplication fluctuating from 47% to 1,748% in sites without TMS versus sites with TMS. Data duplication leads to reporting errors that could cause marketers to incorrectly report that certain content or promotions received more interest than they actually did.

#### Average # of JavaScript Errors (per site)



In terms of Number of JavaScript errors, retailers without TMS had roughly a 9% to 74.3% higher average number of JavaScript errors in sites that did not use a TMS versus sites that did use a TMS.

To better illustrate the impact of TMS systems, we divided the Top 100 Internet retailers by the heaviest and lowest usage of site tags, and further discovered (see appendix):

- Among the top 20 heaviest tag users, we found that those who did not use a Tag Management

## Insight #2

Those with TMSes experience faster load times, lower javascript errors and data duplication, and improved site compliance

System experienced a nearly 300% increase in JavaScript errors.

- There is over a 100% increase in data duplication among the top 20 heaviest tag users that do NOT use a Tag Management system.
- The benefit of using a Tag Management system is accentuated among sites with low complexity (ie. fewer tags detected or installed). Among those that had TMSes, load times were 20% faster, and data duplication was 2,500% less than those sites that did not have a TMS.



## Insight #3

# The IR100 is underserved in the quality of their tag implementations

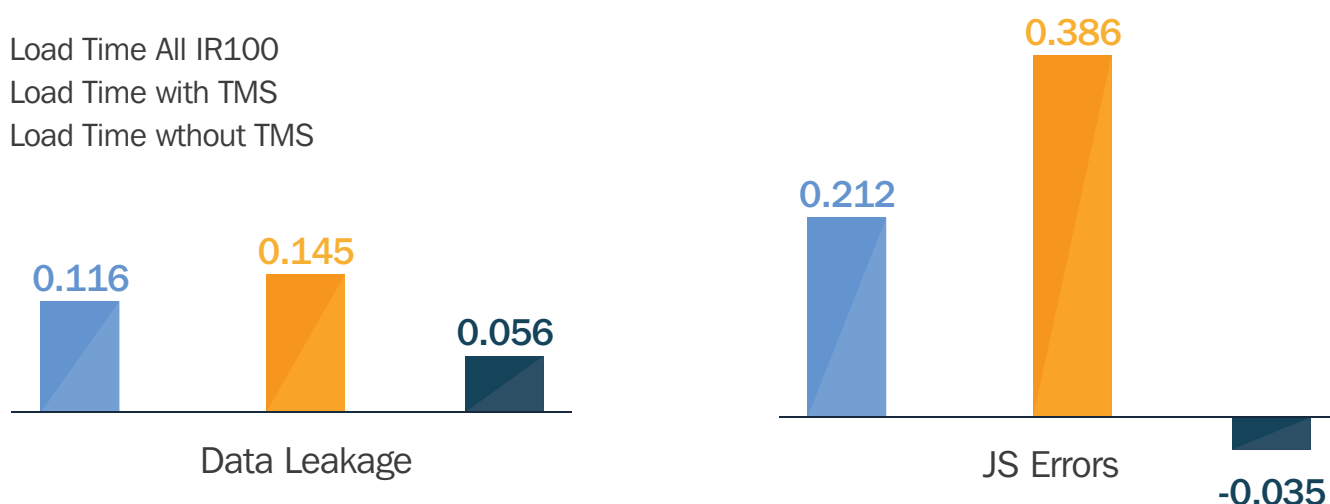
If there is any suspicion that a site is slowing down because of the overhead of deploying too many Marketing Technologies, marketers may not be getting the best value from their digital marketing investment.

Technology alone is not the answer. Without specialized expertise, tag deployments are subject to the age old adage “garbage in; garbage out.” For example, one type of problem that increases waste and reduces the Return on Marketing Technologies is tag duplication, or the number of times a page had duplicate tags with the same account variable. As a result, extra server calls are being made, and companies end up paying more than they have to.

We discovered there is a correlation between a site’s load times to data leakage and JavaScript errors. In the IR100, retailers that used a TMS had a higher correlation between faster loading times and lower JavaScript errors. The correlation between JavaScript errors and Site Load times was .386, which demonstrated a high mutual connection. Conversely, for companies with no TMS, there was no connection between the speed of their pages and the number of JavaScript errors. Taking all of this into account, companies with a TMS are addressing these problems with a higher degree of efficiency than those companies without.

### Correlation of Load Times to Site Overhead (seconds)

■ Load Time All IR100  
■ Load Time with TMS  
■ Load Time without TMS



## Insight #4

# Pure-player TMSes outperformed the free solutions

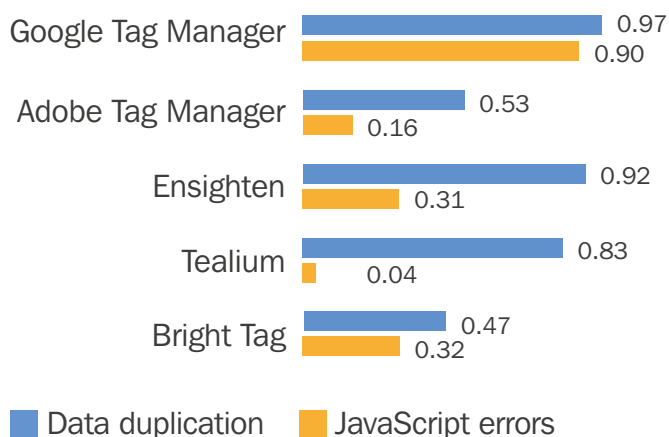
If e-marketers choose to be on the cutting edge of innovation adoption, and are concerned about the risks of being the first adopter, a site audit can identify risks and help mitigate the fear of being an early adopter. The tendency for a CMO with limited marketing budget would be to adopt a free solution. However, in our research, free TMS solutions from Google and appeared to be less effective than the specific solutions from pure-players like Ensignten, BrightTag, and Tealium.

In the chart below, we present the correlation of site load times with JavaScript errors and data duplication errors across all IR100 that had TMS. Some vendor solutions experience lower rates of data duplication and lower rates of JavaScript errors when correlated to their load times. This finding indicates that the quality of the TMS implementation has a positive effect on the efficiency and effectiveness of marketing technologies.

Therefore, to mitigate the potential risks of trying out a new Marketing Technology, tag audits can be designed to help benchmark a company-specific site relative to industry peers, as well as across solutions applied in that peer group. A few conclusions can be made, but also with a few caveats:

- TMS does have an effect on page load times by streamlining outgoing calls. TMS technologies use different architectures with varying results, but tag auditing is not designed to specifically measure the speed of TMS system.
- Tag management technologies do not cause data duplication. Rather the processes that are behind managing these technologies are to blame for duplication, JavaScript errors, tag presence, and to some degree, load times.

### Correlation of Site Load Times & Issues by Tag Management Solution





# Summary results:

Using automated web analytics auditing and verification, site managers can apply debugging features and identify undetected problems arising from tag management. Organizations that are experiencing challenges with site performance due to Data Leakage, Data Duplication, or Site Compliance are not able to employ data-driven, decision-making processes. We believe the adoption of robust data governance and quality assurance processes improves the reliability of web data, and improves the Return on Marketing Technologies.

## **There are 3 Simple Ways a Site Audit Improves the Return on Marketing Technologies (RoMT)**

- Completing a site audit can measure the effectiveness of a Tag Management Solution as a baseline.
- Avoid vendor lock in. If you have a TMS vendor other than your analytics vendor, you can negotiate contract renewals more aggressively because you have successfully reduced your switching costs.
- Pay only for what you use. By reducing data duplications, you can improve your return on marketing technologies (RoMT).

## Free tag audit

---

To request a free tag audit, email us  
**FreeTagAudit@LimaConsulting.com**

We invite companies in the IR100 to contact Lima Consulting Group to obtain the specific findings for their audit.

# Appendix

In this study, the correlation is interpreted as the ability for the dependent variable to be explained by an independent variable. In other words, how well does implementing a Tag Management System explain an increase or decrease in load time, Java Script Errors, or Data Duplications. A higher number indicates that there is a greater likelihood that implementing a solution can help address the problem.

All	Load Time	Java Script Errors	Data Dupes
w/ TMS	1.98	81.90	171.67
w/o TMS	2.07	89.31	253.40
<b>Difference</b>	<b>4.9%</b>	<b>9.0%</b>	<b>47.6%</b>

\* IR 100 Leaders & Laggards are defined by the count of unique tag systems identified on a site. It is an indication of site complexity to have more tags, than less.

<b>IR100 Leaders*</b>	Load Time	Java Script Errors	Data Dupes
w/ TMS	2.28	34.50	184.75
w/o TMS	2.38	134.33	372.33
<b>Difference</b>	<b>4.8%</b>	<b>289.4%</b>	<b>101.5%</b>

\*\* The reason IR 100 Laggards had a lower correlation of JavaScript errors without a TMS system is that these are simpler sites with the least number of tags implemented. Hence, the perceived need for a TMS is lower, and the effect of having a TMS in reducing errors is not actually beneficial.

<b>IR100 Laggards*</b>	Load Time	Java Script Errors	Data Dupes
w/ TMS	1.35	57.50	14.50
w/o TMS	1.61	28.75**	375.25
<b>Difference</b>	<b>19.4%</b>	<b>-50.0%</b>	<b>2,487.9%</b>

1800contacts	Cdw	Hayneedle	Nutrisystem	Sierra Trading Post
1800flowers	Chico's	Home Depot	Office Depot	Sony Store
Abercrombie And Fitch	Costco	Hp Shopping	Officemax	Staples
Amazon	Crate And Barrel	Hsn	Orchard / The Tog	Symantec Store
American Eagle	CVS	Hudson's Bay	Shop	Systemax (Tiger
Amway	Dell	J Crew	Oriental Trading	Direct)
Ancestry	Deluxe	Jcpenney	Overstock	Target
Ann Taylor	Disney Store	Kohls	Pc Connection	Toys R Us
Apple	Eddie Bauer	Lbean	Pc Mall	Urban Outfitters
Army & Air Force	Edible Arrangements	Lowes	Peapod	Us Auto Parts
Exchange Shop	Estee Lauder	Macys	Qvc.Com	Victoria's Secret
Avon	Fingerhut	Market America*	Ralph Lauren Us	Vistaprint
Backcountry	Follett	Microsoft Store	Redcats	Vitacost
Barnes And Noble	Footlocker	Musicians Friend	Rei	Wallgreens
Bass Pro	Ftd	Neiman Marcus	Ruelala*	Walmart
Bestbuy	Gamestop	Net-A-Porter	Saks	Wayfair
Bluenile	Gap	Netflix*	Scholastic	Weight Watchers
Bodybuilding	Gilt	Newegg	Sears	Williams Sonoma
Build	Grainger	Nike	Shoebuy	Yoox
Buy / Rakuten	Green Mountain	Nordstrom	Shopnbc	Zones
Cabelas	Coffee	Northern Tool	Shutterfly	

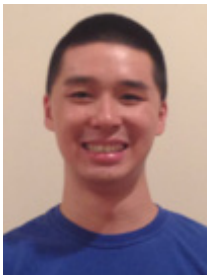
\*These 3 websites were partially audited due to the administrative rights required to access the majority of the pages.

# Bios



## Sunny Youn, Solutions Consultant, Lima Consulting Group

Sunny Youn has over 20 years experience providing digital strategy consulting to Fortune 500 companies. She has worked at Goldman Sachs, AT&T, comScore, and Morgan Stanley. She holds a Bachelor of Arts in Economics and Applied Mathematics and a Masters of Business Administration from the Massachusetts Institute of Technology, Sloan School of Management.



## Ray Tran, Solutions Consultant, Lima Consulting Group

Ray Tran is an analyst who specializes in conducting empirical research on digital marketing. He holds a Bachelor of Science in Economics from the University of Pennsylvania, The Wharton School.



## Paul Lima, Managing Partner, Lima Consulting Group

Paul Lima, founder of Lima Consulting Group, has over 15 years experience consulting on issues related to digital strategy and marketing technologies. He holds a Bachelor of Science in Economics from the United States Military Academy, and a Master's of Science in the Management of Technology from the University of Pennsylvania's Engineering School and The Wharton School.



## Matthew Miller, Director of Marketing, ObservePoint

Matthew Miller has served as the Director of Marketing at ObservePoint since 2009 and is a subject matter expert in conducting tag audits. He holds a Masters of Business Administration from the University of Phoenix, John Sperling School of Business.



## Liana "Li" Evans, Senior Solutions Consultant, Lima Consulting Group

Liana "Li" Evans is an award-winning author with over 15 years of experience advising companies in digital media strategies. She is also the founder of several startups. She holds a Bachelors in Information Systems & Public Relations from Susquehanna University

| info@LimaConsulting.com

| (866) 500-LIMA

| Philadelphia  
| San Jose  
| Miami  
| São Paulo  
| Montevideo  
| Bogotá