How the top ECOMMERCE Sites Perform

2015 ROI ON MARKETING TECHNOLOGIES

LIMA CONSULTING GROUP

ObservePoint
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 Top 100 (IR100) 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 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 to conclude how data-driven analysis can drive sales results.

**Sneak Peek**

- Gain deeper insights on how companies that have a Tag Management System (TMS) are outperforming those that don’t
- Learn best practices about TMS deployments
- Understand 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 a TMS are reducing load times, JavaScript errors, and data duplication more than those without a TMS
- Pure-player TMS outperform the free solutions
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 (MarTech) 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 interdependence 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 insights to help CMOs determine ways to calculate their RoMT 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 MarTech 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.
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 (GA). However, the percentage of sites that use GA as a primary platform drops to just over 10%. E-marketers have chosen to deploy paid analytics solutions 6.5x more than 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.

The same holds true for paid vs. non-paid TMS.

Comparison of Web Analytics Usage by Internet Retailer 100
INSIGHT #2

THOSE WITH TMS EXPERIENCE FASTER LOAD TIMES, LOWER JAVASCRIPT ERRORS AND DATA DUPLICATION, AND IMPROVED SITE COMPLIANCE

Haves vs. Have-nots

Based on a detection of any 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.

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.

Retailers without TMS had roughly a 9% to 74.3% higher average number of JavaScript errors than sites that did use a TMS. To better illustrate the impact of TMS, 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 TMS experienced a nearly 300% increase in JavaScript errors.
If there is any suspicion that a site is slowing down because of the overhead of deploying too many MarTechs, 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 RoMT is tag duplication, or the number of times a page has 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 without.

There is over a 100% increase in data duplication among the top 20 heaviest tag users that do NOT use a TMS. The benefit of using a TMS is accentuated among sites with low complexity (ie. fewer tags detected or installed). Among those that had a TMS, 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**

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

- **Load Time All IR100**
  - Data Leakage: 0.116
  - JS Errors: 0.212

- **Load Time with TMS**
  - Data Leakage: 0.145
  - JS Errors: 0.386

- **Load Time without TMS**
  - Data Leakage: 0.056
  - JS Errors: -0.035
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 appeared to be less effective than the specific solutions from pure-players like Ensighten, BrightTag, and Tealium. If emarketers 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.

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 MarTech.

Therefore, to mitigate the potential risks of trying out a new MarTech, 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**

<table>
<thead>
<tr>
<th>Tag Management Solution</th>
<th>Data Duplication</th>
<th>JavaScript Errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Google Tag Manager</td>
<td>0.97</td>
<td>0.90</td>
</tr>
<tr>
<td>Adobe Tag Manager</td>
<td>0.16</td>
<td>0.53</td>
</tr>
<tr>
<td>Ensighten</td>
<td>0.31</td>
<td>0.92</td>
</tr>
<tr>
<td>Tealium</td>
<td>0.04</td>
<td>0.83</td>
</tr>
<tr>
<td>Bright Tag</td>
<td>0.47</td>
<td>0.32</td>
</tr>
</tbody>
</table>

**INSIGHT #4**

**PURE-PLAYER TMS OUTPERFORMED THE FREE SOLUTIONS**
SUMMARY

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 RoMT

1. **Measure the effectiveness of a TMS baseline**
   
   Completing a site audit can measure the effectiveness of a TMS as a baseline.

2. **Avoid vendor lock-in**
   
   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.

3. **Pay only for what you use**
   
   Pay only for what you use. By reducing data duplications, you can improve your RoMT.

Find your organization’s broken or missing tags that may be affecting your data-driven decision-making process. Discover Data Assurance™ today.
**METHODOLOGY**

Sites included in the eCommerce Services Audit

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 TMS explain an increase or decrease in Load Time, JavaScript Errors, or Data Duplications. A higher number indicates that there is a greater likelihood that implementing a solution can help address the problem.

<table>
<thead>
<tr>
<th>All</th>
<th>Load Time</th>
<th>JavaScript Errors</th>
<th>Data Dupes</th>
</tr>
</thead>
<tbody>
<tr>
<td>w/ TMS</td>
<td>1.98</td>
<td>81.90</td>
<td>171.67</td>
</tr>
<tr>
<td>w/o TMS</td>
<td>2.07</td>
<td>89.31</td>
<td>253.40</td>
</tr>
<tr>
<td>Difference</td>
<td>4.9%</td>
<td>9.0%</td>
<td>47.6%</td>
</tr>
</tbody>
</table>

IR100 Leaders*

<table>
<thead>
<tr>
<th>IR100 Leaders*</th>
<th>Load Time</th>
<th>JavaScript Errors</th>
<th>Data Dupes</th>
</tr>
</thead>
<tbody>
<tr>
<td>w/ TMS</td>
<td>2.28</td>
<td>34.50</td>
<td>184.75</td>
</tr>
<tr>
<td>w/o TMS</td>
<td>2.38</td>
<td>134.33</td>
<td>372.33</td>
</tr>
<tr>
<td>Difference</td>
<td>4.8%</td>
<td>289.4%</td>
<td>101.5%</td>
</tr>
</tbody>
</table>

IR100 Laggards*

<table>
<thead>
<tr>
<th>IR100 Laggards*</th>
<th>Load Time</th>
<th>JavaScript Errors</th>
<th>Data Dupes</th>
</tr>
</thead>
<tbody>
<tr>
<td>w/ TMS</td>
<td>1.35</td>
<td>57.50</td>
<td>14.50</td>
</tr>
<tr>
<td>w/o TMS</td>
<td>1.61</td>
<td>28.75**</td>
<td>375.25</td>
</tr>
<tr>
<td>Difference</td>
<td>19.4%</td>
<td>-50.0%</td>
<td>2,487.9%</td>
</tr>
</tbody>
</table>

** IR100 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.

** The reason IR100**

Laggards had a lower correlation of JavaScript errors without a TMS because 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.

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

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Brian Harris is a data scientist and Certified Analytic Professional (CAP©). He holds a MS in Operations Research from George Mason University and a BS in Economics from the United States Military Academy.

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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.

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Adriana Rubio has served as the Marketing and Partners Manager at Lima Consulting Group since 2013, leading all marketing initiatives with over 20 technology partners to position Lima Consulting Group as a Thought Leader in the Digital Marketing Industry. She holds a Bachelor’s degree in International Marketing from Manizales University, Colombia.