USING BIG DATA FILE FUSION TO DETERMINE THE EFFECTS OF SOCIAL MEDIA ON RETAIL BRAND PREFERENCE

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Using Big Data File Fusion to Determine the Impact of Social Media on Retail Brand Preference

ABSTRACT

One of the primary challenges in the emerging field of data analytics is the combining of multiple sets of data through what is often called data fusion. This approach was used to analyze consumer responses to a bi-annual online study of reported social media usage by U.S. consumers over a ten year period. The goal was to determine if the rapidly growing use of social media had any impact on the reported changes in retail brand preferences reported by those consumers in that decade-long time frame. Negative correlations were found for manufacturer brands and limited impact was found for retail brands. The primary correlation was with the growth of consumer stated No Brand Preference. This preliminary analysis further confirms the present growth of no brand preference in multiple retail brand categories. Of as great value is the evidence that online consumer data can be aggregated and analyzed over time, thus providing marketers with another needed tool to use in understanding and managing the flood of consumer generated data now emerging.

Key Words: Social Media, Data Fusion, Retailing, Branding, Brand Preference, Consumer Data
I. Introduction

All marketers, including retailers, appear to have assumed that social media can or should provide new and innovative ways to help them build their brands and increase their consumer brand equity. The assumption appears to be that these relatively new, interactive forms of consumer communication are simply additional media distribution channels which can be used for any number of promotional activities. Social media, such as Facebook, Twitter, and the host of others, can therefore be used, and will perform in the same ways as traditional outbound advertising-driven media. The marketer should therefore, be able to use these new tools, employing content, context and message delivery analysis, to generate both short-term sales and build long term brand loyalty and equity. If used properly, social media investments should provide meaningful brand-building results at much lower investment costs.

The challenge to this thinking is simple: Given the multitude of new social media forms, the lack of behavioral data and the longitudinal time frames in which these new media forms develop, how can these hypotheses be tested and how can social media be evaluated? In this exploratory paper, we provide a methodology for fusing on-going data sets to answer those questions.

To test one method of data fusion, we selected social media’s ability to build retailer brand preference among a group of consumers over time. In this analysis, the goal is to determine if these new social media forms enhance or detract from the value of the retail brand itself.

II. The Challenge of Data Fusion

As the availability of syndicated data grows, the applicability to ongoing marketing problems expands as well.

Fast moving consumer package good brand preference, as determined by an analysis of consumer surveys, have been shown to be declining over the past several years. There is, however, a concomitant rise in explicitly expressed “no brand preference” in the category. At the same time consumer preference for the retail brand seems to be growing slightly. A logical research question, therefore, is: can we study marketing and media variables to see if they might explain these changes?

Some of the most comprehensive syndicated data sources are collected and sold by Prosper Technologies (formerly BIGresearch) of Worthington, Ohio. Prosper conducts an annual survey called Media Behavior and Influence (MBIs) It is a double-blind generated and weighted study, statistically balanced using an algorithm which replicates the U.S. Census Bureau approach. Thus, the methodology statistically represents the entire U.S adult population.
Media consumption and influence data is one of the primary areas of the MBIs. It has been collected, along with consumer-stated retail brand preferences for the last 10 years. Many of Prosper’s clients are well known U.S. retail chains such as Walmart, Kohl’s, Dillard’s and the like. The sample size is large, usually in excess of 20,000 per wave, qualifying it under most definitions as “big data”.

To answer the media and retail brand preference question, the data found in the MBIs studies must be combined. Since similar questionnaires have been distributed in each wave, although to a continuously changing response base, the analytical approach must aggregate each time period or wave of questionnaires and then make comparisons by year. This allows for a correlational analysis to be done with year as the unit of analysis.

III. Social Media.....Does It or Doesn’t It Build Brands?

In most trade press publicity, social media has been touted as the “savior of brands and branding”\(^9\). Common wisdom seems to be that social media, because it is personal, ubiquitous, engaging and low in cost to the advertiser, is the best solution to the challenge of brand building for all marketers. It is this hypothesis that is being tested in the retail store arena using this data fusion methodology.

As will be seen, the results of this analysis indicate just the opposite of the commonly accepted view. It is shown that, over time, in spite of the incredible growth of consumer’s use of social media, these new media forms have had limited to no impact on retail brand development or value. Additionally, there is some evidence that, at increased levels of consumer use and preference for Facebook specifically, lower retail brand loyalty has actually occurred. This is evidenced by the growth of consumer claimed “No Brand Preference” in multiple retail categories when correlated with social media usage\(^10\). If this growth in consumer “No Brand Preference” in retail categories is driven by online media usage, then the surging consumer use of these media forms may be bad, not good news, for retailers and their brands.

As earlier, this study is exploratory and needs verification and substantiation by other sources. It does, however, seem to demonstrate two things:

1. Fusion of differing sets of very large data is both possible and practical over time.
2. The size of the sample, the number of retail categories investigated and the longitudinal results seem to suggest that correlational confirmation may well be used to make managerial decisions.

In the sections which follow, we first discuss how relevant solutions to the question
of determining how the value of social media for retail brand building might be determined. Then, we return to the issue of big data fusion and its value to researchers, analysts and marketers.

IV. Literature Review or What We Know

To differentiate these new findings from what has traditionally been found in retail advertising, branding and media research, some new definitions have been developed. These are briefly explained below.

A. What Is Online, Interactive Media?

Generally, online, interactive media has been defined as: media forms which are (a) digitally developed and delivered, typically through the internet and, (b) with access commonly controlled by the consumer. This differentiates online from traditional media which may or may not be in digital form, but, are (c) commonly controlled by the marketer through various third party distribution systems.

Interactive media communication is therefore defined as any system which allows the consumer or audience to access, use and re-distribute digital content for their own benefit or the benefit of others. Social media is therefore one form of interactive media communication, developed by either (a) a third party such as Facebook, Twitter, My Space, You Tube, Pinterest or others or (b) through interactive communication generated by consumers and distributed to other consumers, commonly through some form of internet-developed system. We might consider these media forms as “electronic word-of-mouth” where consumers communicate with other consumers to seek or give advice about products or services.

Clearly, not all online or interactive media are capable of or relevant to marketing communication discussions. For example, most online, interactive media, particularly “social media” were not developed initially as marketing communication distribution systems. Instead, their purpose was to provide interactive capabilities for interactions between individuals and groups. Marketers are the ones attempting to co-opt social media for commercial purposes. Thus, the findings from this study may challenge many marketer assumptions.

B. Research on Traditional and Interactive Media and Communication

The major difference between research on traditional, third party-distributed, marketer controlled advertising, and, the new interactive forms, is that almost all the earlier work was focused on analyses of outbound communication, assuming passive audiences who were seeking information from marketers in order to make informed decisions. Thus, almost all traditional marketing communication was based on persuasion and focused on discussions of what the marketer had made or inventoried and was commonly designed to generate short-term sales of those products.
Today, marketing communications, as used here, consists of all forms of marketing and communication which consumers access or acquire about a product or service through their media and information consumption tactics and technologies. Thus, marketing communication may be actively accessed or passively acquired by the consumer and it may come from multiple sources, not just the marketing organization. Thus, successful acceptance of and use by the consumer of the communication is one of the key measures for success in the interactive era.

The earliest discussions of differences between marketer distributed and customer acquired product and brand information came from investigations of integrated marketing communication (IMC) which began in the late 1980s. The understanding and acceptance of the differences in the two has evolved over the years. The primary difference seems to be in the loci of the research. Traditional marketing communication had been focused on the product or service while IMC starts with the consumer. Thus, the IMC focus is on media consumption, rather than media distribution.

The earliest media consumption studies were reported in 2004 and the research stream has developed and evolved over the years. Generally, these research studies have reported that media models used by marketers, based on message distribution, have only limited relationships to what consumers actually report doing in terms of their media usage and the influence those media exposures have later on purchasing decisions.

C. What We Know About the Impact of Online Media

Most online media, particularly social media, have been assumed to provide two specific consumer marketing values. One is the marketer’s ability to listen to consumers through their online discussions. From that “listening” it is assumed marketers can create better communication programs which will result in closer brand relationships with customers and prospects. That can be done by developing interactive, ongoing conversations where customers can ask questions and marketers can respond, supply answers or provide additional information. It is assumed that these interactions build longer, stronger and more competition-resistant associations, benefitting both the buyer and seller.

The second proposed value of social/online media is customer enablement to recommend products and services to others in their networks whom they value (often termed User Generated Content or UGC) and to punish those marketers, through bad publicity, who do not live up to their expectations. The marketing challenge of these online and social systems is that marketers have no control over these systems, and in some cases, may not even know they exist.

Malthouse has generated an extensive review of the recent literature regarding User Generated Content which is clearly descriptive of social media. His thoughts are quoted below:

“Much of the research analyzing the effects of UGC on consumer decision-making has looked at how word-of-mouth and UGC influence others. For example, research on product reviews has shown that these reviews influence product search, choice and overall sales. Other research
has shown that characteristics of the UGC and its creator, have an impact on the relative influence on the receiver. Far less research has explored the decision-making impact on UGC on the creator. Etgar notes that motivation to engage in co-creating behavior may be the result of several potential benefits. These benefits may be intrinsic (such as the hedonic benefits of play, excitement or variety seeking); extrinsic (such as benefits resulting from self-expression); and/or the result of social benefits that accrue from participation. Social benefits include the ability to obtain status or social esteem and the social contact value of associating with like-minded people in co-production communities and/or social networks.

These potential benefits drive customer’s generation of UGC, which then cause them to activate goals and to elaborate on their own thoughts relevant to the goal. This is consistent with a wide range of goal-related theories. According to goal-setting theory participation in a UGC promotion should lead to a change in participant’s future behavior, especially in situations in which the UGC creates or activates a particular consumption goal. Likewise, van Osselaer and Janiszewski have developed a goal-based model of product choice that relies on consumers’ evaluations of the benefits they obtain from consumption. In this model, benefits act as goals whose importance depends on the level of goal activation in memory. Moreover, the extent to which a person pursues a goal has been linked to the extent to which the goal is activated in his or her memory. Therefore; we propose that UGC promotions that explicitly aim to activate goals should strongly affect purchase behavior.

Goal specificity may also play a role in improving response to UGC promotions. Wright and Kacmar show that goal specificity increases commitment to reaching a goal. Specific goals can clarify the required level of performance and decrease the ambiguity about the payoffs associated with effort making the route to goal achievement clearer. In this way, specific goals may facilitate the development of implementation intentions that have been shown to improve the likelihood of following through on reaching that goal. Applying this to the van Osselaer and Janiszewski goal-based model, specific goals should lead to a higher level of goal activation and thus, greater importance in evaluation and choice.

Finally, the creation of UGG is associated with greater engagement. Engagement is viewed as a psychological state that is a result of interactive customer experiences, such as UGC experiences, that deepen involvement with the brand. In addition, Malthouse and Calder point out that engaging consumer experientially is one of the main reasons for using social and online media.

In general, the UGC relevant literature is consistent with our contention that UGC contest promotions can engage consumers in active System 2 Goal activation and thought elaboration. While both these marketing communication concepts, i.e., tracking these “close associations” and “positive word-of-mouth” activities, are easy to conceptualize, they are often quite difficult to actually identify, track, measure and parse out on social media. The exploratory approach used in this paper, i.e., data fusion, seems to offer a promising solution to this continuing problem.
A plethora of articles, forecasts, blogs and even scholarly articles have been published supporting these favorable online/social media views. Some are quite optimistic, i.e., suggesting online/social media, will, replace or at least substitute for many traditional outbound-only media forms. Should that occur, online media would become the dominant commercial communication form of the future.

Interestingly, existent literature, particularly among academics is heavily weighted toward an assumption that “online media is good”, (See particularly Malthouse quote above) since it connects buyer and sellers and creates ongoing communication which, it is argued, should result in stronger brands and closer ties between the brand owner and the brand user. Others, however, question whether having a large number of “Followers” or “Fans” or “Likers” really helps build brand value at any level. The ensuing cacophony of views has created not only a marketplace of confusion; it has divided the marketing community into those who believe in the power of online media, particularly social media, and its long-term future and those who don’t. In this study, we try to provide some insight into the measureable impacts of social media on retail brands to resolve some of these conflicting views.

V. Study Objectives

This study, through the use of longitudinal data fusion, attempts to parse out and provide some evidence of the impact of social media on the development of retail brands in the U.S. marketplace. In other studies, evidence has been presented that the increased consumer use of social media has had a negative impact on the preference of manufacturer product brands over time. Those studies used a measurement system based on the calculation of a Net Promoter-type Score (NPS) as a measure of consumer-stated brand loyalty. That methodology was employed since it focuses on interactions between consumers, rather than external communication by the marketer. Schultz and Block demonstrated that the development of a Net Promoter Score (NPS), along the same lines as that originated by Reichheld, was a viable surrogate measure for consumer brand loyalty and purchasing activities. Those studies also illustrated how NPS-type ratings could be developed from data gathered through the Prosper International MBIs data set (Media Behaviors & Influence Study). The same approach and data set was used in this study.

Schultz and Block have also demonstrated how consumer-generated NPS scores for individual brands can be related to reports of those same consumers use of social media. Thus, while causality has not been verified, strong correlations between NPS scores and levels of consumer use of social media have been demonstrated.

Previous studies have also shown that, based on NPS scores, manufacturer brands have less consumer preference compared to retail food store brands. In short, using consumer NPS methods based on “consumers giving or seeking advice” as the criterion variable, the retail store brand almost always had the stronger NPS score. Thus, they suggested that the value of the manufacturer brand was declining in the face of stronger, i.e., the more preferred retail store
brands\textsuperscript{7}. (Note: this study focuses on retail store brands, not on the private label brands which may be stocked in the store.)

One of the additional findings of that continuing research stream was that both the retailer and manufacturer NPS scores were substantially below the consumer-stated choice of “No Brand Preference” across multiple product categories. That is, the highest NPS score for both manufacturer brands and retailer brands was substantially below the consumer stated No Brand Preference choice\textsuperscript{7}. Since that research was conducted, additional studies have been conducted, one of which is based on ten years of consumers questionnaire responses (1,100,000+ responses), based on 73 retail store categories involving 1,500+ brands\textsuperscript{63,64}. All show the same results.

If both retail store brand preference is flat and manufacturer brands are declining in consumer preference, the question becomes: why is that occurring and can we identify what is creating those changes? Again, from the earlier studies conducted, there is substantial evidence that consumers increasing use of social media may well be a major contributing factor. Thus, the Research Question for this study is:

RQ: Is the growing consumer use of social media related to the flat to declining rate of consumer preference for retail store brands?

VI. The Data Set and Initial Online Media Usage Questions

The data comes from a commercial database, the Media Behaviors and Influence studies (MBIs) conducted by Prosper International (WWW.goprosper.com) and BIGinsight™, (www.BIGinsight.com™) Worthington, OH. MBIs studies have been conducted online by Prosper since 2002. They consist of responses to an online questionnaire based on a nationally projectable sample of the U.S. population and is separately developed for each wave of the studies. The longitudinal values of this data set is illustrated by the fact that Facebook only started to be reported by respondents to the Prosper studies in 2007 but, has grown rapidly since.

Questionnaires focus on consumer responses to a number of questions on media usage, product and service purchases (both recent and anticipated), factors which influence the respondent’s purchase decisions within a set of nine broad product categories (apparel, automobiles, eating out, electronic products, groceries, financial services, health and beauty aids, medicines, telecommunications/wireless) Additional questions on use of leisure time, ownership of various products and other questions help expand the understanding of the consumers responding.

The semi-annual MBIs studies commonly result in 22,000+ individual responses per wave. The MBIs database now contains over 300,000 individual responses. Thus, the size of the sample frame generally removes many questions of statistical significance. Given the length of time the MBIs data-gathering has been conducted, longitudinal studies of changes in consumer behaviors have proven both possible and practical.
While our original data set was compiled from ten years of data (2001-2012), the data used in this analysis was taken from the consolidation of eight (8) MBIs reports, gathered between December, 2007 and June, 2011. It consists of 171,418 individual responses to the questions posed in the MBIs studies.

VII. Key Questions to Provide Online Media Understanding

Many digital, online and social media research studies have been based on a limited number of media forms and have been taken at single points-in-time. This multi-year study includes 31 media forms (both online and offline) which gives a more complete picture of how consumers use various media individually and in various combinations, singly and in multi-tasking situations.

A. Which Online Media Forms Are Accessed by MBIs Respondents and How Are They Used?

In the MBIs questionnaire, respondents report what media forms they regularly use from a pool of 31 alternatives, both online and offline. Respondent reports from the June, 2011 wave are shown as Table 1. Facebook is clearly the most dominant online site with over 50% of all respondents who reported using social media reporting use of that site. Further, Facebook had the highest rolling 6 month average usage with an increase at +17.6%, more than any online/social media form in the MBIs response base. Thus, we use Facebook as the surrogate for all social media forms in this study.

<table>
<thead>
<tr>
<th>Regularly Using June 2011</th>
<th>Percent</th>
<th>Growth Rate*</th>
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<tbody>
<tr>
<td>Facebook</td>
<td>50.4</td>
<td>17.6</td>
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<tr>
<td>YouTube</td>
<td>31.0</td>
<td>5.5</td>
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<tr>
<td>Hulu</td>
<td>9.0</td>
<td>2.1</td>
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<tr>
<td>Twitter</td>
<td>8.1</td>
<td>13.5</td>
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<tr>
<td>LinkedIn</td>
<td>6.3</td>
<td>12.7</td>
</tr>
<tr>
<td>MySpace</td>
<td>4.1</td>
<td>-27.0</td>
</tr>
<tr>
<td>Classmates</td>
<td>3.5</td>
<td>1.6</td>
</tr>
<tr>
<td>Plaxo</td>
<td>1.5</td>
<td>4.7</td>
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</table>

*6 month

Regularly Using June, 2011

Table 2 shows social media usage growth between December, 2007 and June, 2011. YouTube and Google usage increased while Yahoo.com declined. Note again, social media in any form did not begin to appear in the Prosper data until 2007. Since we present this data in an annual form, the growth and impact of those forms of media are apparent in the Table above.
In addition to being the dominant social media platform, Table 3 shows Facebook is also highly and positively correlated with other online media forms which MBIs respondents use such as Video Games, Instant Messaging and the Internet. Facebook is negatively correlated with traditional media forms such as TV, Radio and Magazines, indicating that respondents who use Facebook generally use less of those media than the average MBIs respondent.

<table>
<thead>
<tr>
<th>Facebook Usage Association with Media Consumption</th>
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<tbody>
<tr>
<td>Video Games</td>
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<tr>
<td>IM</td>
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<tr>
<td>Internet</td>
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<tr>
<td>Email</td>
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<td>Newspaper</td>
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<tr>
<td>Blogs</td>
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<tr>
<td>Direct Mail</td>
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<tr>
<td>TV</td>
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<tr>
<td>Radio</td>
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<tr>
<td>Magazines</td>
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</table>

With this view of online and social media usage by the MBIs respondents, we now investigate the impact of social media, particularly Facebook, on consumer preference for retail brands.

**VIII. Connecting Facebook and Retailer Preferences**

We start with a view of the impact of Facebook usage on retailer brand preferences during the study period.
A. The Impact of Facebook Growth on Traditional Retailer Preferences

Clearly, overall social media and Facebook usage is growing. One would assume that this usage would have some favorable impact on the marketers who are using social media for promotional purposes or by consumers who are using the system to communicate with other consumers. Further, one would also assume that greater consumer usage, particularly among those who receive and give advice to other consumers, would or should have some commercial value to the retailer, i.e., through consumer preferences for various retailers, and also, their retail brands. To determine the relationship, an analysis was conducted in six of the nine broad product categories where MBIs data is captured (apparel, electronics, home improvement, grocery, health and beauty aids, and medicine).

A second comparison was made with the No Brand Preference group. In the MBIs analyses No Brand Preference is a specific consumer choice. A response of “No Brand Preference” means the consumer is truly ambivalent in terms of which retailer they would prefer when making a purchasing decision. Thus, in the charts that follow, No Brand Preference is compared to the two/three leading retailers preferred by respondents. In almost all categories, No Brand Preference is commonly greater than that of the retailer brands.

We posit that if online/social media (as evidenced by Facebook) is generating recommendations or preferences for various retailers, it is not apparent from this data.

All charts which follow are longitudinal. They illustrate consumer responses to the question: “List your favorite retailer in the “__________” category. For example, Table 4 illustrates consumer responses in the Women’s Clothes Retailer category.

![Favorite Women’s Clothing Retailer](image)

The two most preferred women’s clothing retailers are Kohl’s and Wal-Mart. Both have preferences of approximately 7 to 8% of study respondents during the study period. Neither of these retailers seems to have benefited from the growth of Facebook usage. What did occur, however, is that the No Brand Preference choice rose during the measurement period. In December, 2007, No Brand Preference was the choice of about 37% of MBIs category.
respondents. That choice level grew during 2008, declined and then, began to slowly grow again. It has again gradually grown since, being at roughly 43% in the MBIs report used in this analysis. (June, 2011). Thus, unless one attributes the growth of No Brand Preference to Facebook, there is no apparent social media effect. (Charts for men’s clothing, children’s clothing and shoes are illustrated in Appendix A which shows the same results.)

The story is somewhat different in other categories but, the results appear to be the same. Table 5 shows the consumer-reported preferences in the Grocery category (Food Retailers).

![Favorite Grocery Retailer](image)

While there are no truly national grocery chains in the U.S., the two primary Grocery retailers preferred by MBIs respondents are Wal-Mart and Kroger. Wal-Mart has about a 15% preference and Kroger is roughly 5 to 6%. Much of this difference can be explained simply by store locations. “No Brand Preference” for retail chains grew from about 20% to about 24% in the reported periods. Most interesting, however, is that No Brand Preference is growing while Wal-Mart and Kroger preferences are flat to declining. There is no evidence of a Facebook “bump” except in 2008 when No Brand Preference grew as well.

There also are no truly national Health and Beauty Aids (HBA) retailers in terms of distribution and location. The two most preferred category retailers are Wal-Mart and CVS.
Favorite HBA Retailer

Wal-Mart preference declined from about 25% to just over 20% in the survey period while CVS increased from approximately 7% to about 9%. No Brand Preference showed almost the same growth pattern during the period as was seen in Grocery retailing… a spike in 2008, slow growth in 2009 and then another spike toward the end of 2010.

These same types of patterns were found for other categories. Charts on consumer preference for Sporting Goods and Exercise Equipment, Linens and Bedding and Furniture retailers are in Appendix B.

B. Two Retail Categories Where Social Media Might Have Had an Impact

Two retail categories, Electronics and Home Improvement, may have received some positive impact from social media.

Favorite Electronics Retailer

Wal-Mart and Best Buy are the two most preferred Electronics retailers. Wal-Mart had a preference share of approximately 15% and declined during the measurement period. Best Buy’s
brand preference ranged from about 28% in December, 2007 to about 32% in the last MBIs report. (June 2011). No Brand Preference, however, has grown more rapidly than either of the other branded electronics retailers, starting at about 27% in 2007 and growing to 32% in the final measurement period. Best Buy does show some increases in preference during social media usage expansion period. There are, however, no clear patterns of increased preference for retailers in the Electronics category that can be attributed to Facebook since that promotional form was introduced.

The other retailer category showing some increased consumer preference and potential retail impact is Home Improvement Retailing.

![Favorite Home Improvement Retailer](image)

Favorite Home Improvement Retailer

Home Improvement category retailers, Lowes and Home Depot, show different consumer preference patterns. No Brand Preference has grown in this category while the well-established retailers have experienced preference declines. In December, 2007 Lowes had a roughly 23% share of preference and Home Depot had a 29% share. No Brand Preference was approximately 32%. Over the measured period, Lowes held steady at about 23%, Home Depot declined to about 27% while No Brand Preference grew to about 35%. Again, there is no noticeable improvement in consumer brand preference attributable to Facebook.

IX. What Does All This Mean?

The primary question which this study posed: can various forms of data be fused over time to provide clarity and understanding using big data sources is clearly positive.

The managerial question: Does social media add or detract from consumer brand preference for retail brands is still unresolved. Since we cannot connect the specific MBIs respondents to actual marketplace performance (all MBIs responses are anonymous), we are unable to develop any causal measures. Correlation measures were, however, possible. A Granger causality test was administered to show the best estimate of the causal direction found in
the data. The variables that are Facebook-caused and because of the high degree of autocorrelation or persistence in the preference level. Where bi-directional results were found, that seems to indicate that both the preference persistence and Facebook are contributing to the preference value. Among the strongest associations with Facebook are categories that appear to be ego-enhancing, that is, people like to discuss/talk about the topics. Those were furniture and clothing. Virtually all of the no preference levels are independent of Facebook and growing. These findings were used to determine if Facebook growth is correlated with or related to the growth or maintenance of the consumer No Brand Preference bi-annual measure. Those are summarized in Table 9. (Note this is chart is for June, 2011 only, the latest measurement period.)

<table>
<thead>
<tr>
<th>Traditional Media Percent Average Influence – June 2011</th>
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<tbody>
<tr>
<td><strong>Percent</strong></td>
</tr>
<tr>
<td>Outdoor</td>
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<tr>
<td>Cable</td>
</tr>
<tr>
<td>TV</td>
</tr>
<tr>
<td>Direct Mail</td>
</tr>
<tr>
<td>Radio</td>
</tr>
<tr>
<td>Magazine</td>
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<td>Newspaper</td>
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*6 month

Traditional Media Percent Influence – June, 2011

Traditional media forms (primarily offline) show consumers reporting TV has the greatest influence on their future purchases (21.8% of the sample), followed by Direct Mail (18.7%), Newspaper (16.8 %) and Magazine (15.3%). Importantly, only Outdoor, Cable and TV showed influence growth from the earlier 6 month period.

<table>
<thead>
<tr>
<th>Retail Media Percent Average Influence – June 2011</th>
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<tbody>
<tr>
<td><strong>Percent</strong></td>
</tr>
<tr>
<td>In-Store</td>
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<tr>
<td>Coupons</td>
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<tr>
<td>Inserts</td>
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*6 month

Retail Media Percent Average Influence
Again, using the last MBIs measure in this data set, (June, 2011) Retail Media impact is shown. All retail media forms have more influence on consumer purchases than traditional media, (Table 9) i.e., In-Store at 24.7%, Coupons at 28.4% and Inserts at 19.2%.

To put measures in perspective, the growth rate of each category and the leading brand in that category over the four year measurement period has been calculated and is shown in Table 11.

<table>
<thead>
<tr>
<th>Category</th>
<th>Brand</th>
<th>Growth</th>
<th>r w/Facebook</th>
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<tbody>
<tr>
<td>Womens</td>
<td>Kohl's</td>
<td>3.7</td>
<td>0.77</td>
</tr>
<tr>
<td>Mens</td>
<td>Wal-Mart</td>
<td>-2.4</td>
<td>-0.48</td>
</tr>
<tr>
<td>Childrens</td>
<td>Wal-Mart</td>
<td>-4.6</td>
<td>-0.73</td>
</tr>
<tr>
<td>Toys</td>
<td>Wal-Mart</td>
<td>-3.4</td>
<td>-0.70</td>
</tr>
<tr>
<td>Shoes</td>
<td>Payless</td>
<td>-4.1</td>
<td>-0.64</td>
</tr>
<tr>
<td>Electronics</td>
<td>Best Buy</td>
<td>1.4</td>
<td>0.59</td>
</tr>
<tr>
<td>Sports</td>
<td>Dick’s</td>
<td>1.5</td>
<td>0.55</td>
</tr>
<tr>
<td>Linens</td>
<td>Wal-Mart</td>
<td>-2.4</td>
<td>-0.60</td>
</tr>
<tr>
<td>Home</td>
<td>Home Depot</td>
<td>-1.3</td>
<td>-0.48</td>
</tr>
<tr>
<td>Groceries</td>
<td>Wal-Mart</td>
<td>-1.3</td>
<td>-0.37</td>
</tr>
<tr>
<td>HBA</td>
<td>Wal-Mart</td>
<td>-2.4</td>
<td>-0.66</td>
</tr>
<tr>
<td>Drugs</td>
<td>Walgreens</td>
<td>-1.0</td>
<td>-0.36</td>
</tr>
<tr>
<td>Furniture</td>
<td>IKEA</td>
<td>4.7</td>
<td>0.88</td>
</tr>
<tr>
<td>Appliances</td>
<td>Sears</td>
<td>-1.5</td>
<td>-0.56</td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td>-0.9</td>
<td></td>
</tr>
</tbody>
</table>

Growth in Leading Retail Brands

Column 1 is the product category; Column 2 is the leading retailer brand in that category. The Growth column is the growth of preference for the retail brand during the measurement period. As shown, overall retailer brand preference declined by -0.9%. Of the 14 retailer brands, only 4 increased in consumer preference (Kohl’s, Best Buy, Dick’s and IKEA). The other 10 retailers showed brand preference declines. In general, preference for the leading retail brands is falling despite the rapid growth of consumer use of social media (Facebook) usage.

The final column in Table 11, shows the r² measure for the retailer brand when Facebook usage is included in the calculation. As shown, the only retailers showing growth in preference when Facebook is included are Kohl’s, Best Buy, Dick’s and IKEA, the same as that without the inclusion of Facebook.

Interestingly, social media/Facebook seems to be having more impact on the second most favored brand in most retail categories. That’s shown in Table 12.
Growth in Second Retail Brands

The leading retail brand preference decline of -0.9% is contrasted with the increase in the second retail brand group of +0.3%. As shown, 8 of the 14 second brands increased their consumer preference during the measurement period. More importantly, the correlation between brand preference growth and Facebook was positive in 8 of the 14 categories. So, Facebook seems to be helpful to the second brands in the category, but not the brand preference leaders.

What is most telling, however, is the growth of the No Brand Preference among consumers in all categories. All 14 product categories showed positive No Brand Preference growth in this study, averaging +1.3% during the study period and all have positive correlations.
Summary charts synthesize the findings. Table 14 shows Digital Retail Brand Preferences by Category for the top two preferred retail brands. The section on the left shows the retail brand most preferred by MBIs respondents. The right side shows the second most preferred retail brand. Market share for both the leading and second brand are included for comparison. Overall, the leading brand growth rate is generally lower than that of the second brand even though the leader’s share of preference is higher.

![Retail Brand Preferences by Category](image)

Retail Brand Preferences by Category

The negative slope of the growth rate indicates that overall, the preference for the retail brand is declining. Further, the large number of retail brands plotted on the chart to the left of the 0 point confirms the previous discussions. The four retail category brands which are above average, i.e., Electronics 2, Toys 2, Drugs 2 and Linens 2 are the only retail brands which are above the overall average. All those fall in the second most preferred retail brands group. This social media impact, particularly for Facebook, is quite interesting and provides some likely new research directions.

X. **Summarizing the Findings**

In the MBIs questionnaires, respondents are asked to identify the media forms that most influence their purchase decisions. All nine product categories and the average of the major media forms are shown below. Additionally, the growth rate for each has been calculated.
Only digital media and its growth are shown (December, 2010 to June, 2011). Mobile Media clearly has the greatest growth. Social media is about half that, at 9.9%. More important, however, is the overall percent consumer influence from the various digital media. Social media at 8.6% is in the middle of rankings, i.e., meaning 8.6% of all MBIs respondents say social media has an influence on their purchase decisions. Compared to traditional media influence (see Tables 9 and 10), TV has a +22% influence rate with a +1.6% growth rate. Coupons have +28.4% influences, with little or no growth and Newspapers have a 17% preference, but, are declining at -1.9% per year in influence. So, while social media has had phenomenal growth in the number of users over the past four years, based on these consumer reports, it still appears to have relatively little impact on their purchase decisions.

The final example summarizes the overall findings, that is, the growth of No Retail Brand Preference compared to the growth of social media (Facebook) usage.

<table>
<thead>
<tr>
<th>Percent No Preference by Category – June 2011</th>
<th>Percent</th>
<th>Growth*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Website for buying products</td>
<td>15.2</td>
<td>-0.7</td>
</tr>
<tr>
<td>Sporting Goods/Exercise Equipment</td>
<td>53.9</td>
<td>0.2</td>
</tr>
<tr>
<td>Children's Clothing</td>
<td>63.0</td>
<td>0.5</td>
</tr>
<tr>
<td>Children's Toys</td>
<td>61.3</td>
<td>0.6</td>
</tr>
<tr>
<td>Furniture</td>
<td>38.5</td>
<td>0.9</td>
</tr>
<tr>
<td>Shoes</td>
<td>32.1</td>
<td>0.9</td>
</tr>
<tr>
<td>Women's Clothing</td>
<td>48.8</td>
<td>1.2</td>
</tr>
<tr>
<td>Lenses/Bedding/Draperies</td>
<td>41.0</td>
<td>1.4</td>
</tr>
<tr>
<td>Health and Beauty Aids</td>
<td>35.3</td>
<td>1.4</td>
</tr>
<tr>
<td>Fast Food Restaurants</td>
<td>35.9</td>
<td>1.4</td>
</tr>
<tr>
<td>Men's Clothing</td>
<td>36.3</td>
<td>1.4</td>
</tr>
<tr>
<td>Appliances</td>
<td>39.1</td>
<td>1.6</td>
</tr>
<tr>
<td>Prescriptions</td>
<td>31.9</td>
<td>1.7</td>
</tr>
<tr>
<td>Electronics (Laptops, Dvds, etc.)</td>
<td>31.6</td>
<td>1.8</td>
</tr>
<tr>
<td>Home Improvement/Hardware</td>
<td>34.6</td>
<td>1.9</td>
</tr>
<tr>
<td>Groceries</td>
<td>23.6</td>
<td>2.4</td>
</tr>
</tbody>
</table>

*6 month
The Percent column is the percentage of MBIs respondents who said that they had No Retailer Brand Preference in that retail category. Those range from a low of 15.2% in Website for Buying Products (suggesting fairly strong influence in this factor) to a high of 63% in Children’s Clothing. Most of the retail categories are in the 30 to 40% range for No Brand Preference. Recognizing that the balance of consumer preference is shared among several brands, it is obvious U.S. consumer retail brand preference is not strong and it appears social media, particularly Facebook, has had little impact in changing those existing consumer preferences.

While it is possible that there are other factors may be influencing the decline of manufacturer and retailer brand preference, other studies specifically related to manufacturer brands, have found consumer preference declining over the same period.

XI. Implications, Limitations and Next Steps

Much research and discussion on the impact of new media forms, particularly social media, at both the manufacturer and retail brand level, has been generated. Yet, there seems to be little evidence these new media forms have had a major impact on changing or enhancing brand preferences. This study connected and correlated the growth of online media usage, specifically Facebook, using MBIs data, to determine if social media use influenced the growth or decline of retailer brand preferences over time. In this study, which was conducted over several years of time, among a large number of brands, both manufacturer and retailer, suggests it did not. Does that mean social media doesn’t work or doesn’t work the way we would like it to work. That clearly is the major question facing managers today. What this study does, however, if perhaps take out some of the overblown hyperbole which seems to have crept into both professional and academic discussions of social media value.

Earlier studies have shown that No Brand Preference was growing for both manufacturer and retailer brands. The only relationship found was: as Facebook users and usage increased, preference for various retailer brands declined. Are they connected? Our evidence seems to suggest they are. If so, that can be a most troubling result for both brands and marketers.

One area which likely deserves consideration is that of encouraging retailers to experiment more aggressively with social media going forward. Too often, it appears that retailer and manufacturer brand owners alike are hesitant to use these new media forms and approaches in an experimental fashion that is, using them in innovative and non-traditional ways. Trying to get new concepts and ideas to fit in old traditional retailing and branding approaches may well be one of the causes for the lack of social media results found in this study.

If social media has any influence, it appears to be negative for retail brands. That may be because social participants are not positive in their comments. Or, it may well be that the consumer’s newfound ability to gather information about retailers and their brands from multiple media sources may influence their decisions. Since brands are essentially judged on their
perceptual value today\textsuperscript{67} the easy ability to find offsetting or non-corroborative data, either from online sources or from comments and recommendations by social media users, may result in the growth of consumer No Brand Preference for retail brands. That is being explored in other research studies.\textsuperscript{76, 77, and 78}

Two most obvious limitations are: the sample consists only of respondents to the MBIs studies in the United States. While MBIs panels are reflective of the entire U.S. population, some anomalies may exist. Thus, the results may not be projectable to other markets or other retail situations. The second is that this is clearly an exploratory study. Additional analysis or other studies may result in different findings and in other conclusions. However, this work should sufficiently challenge some of the growing beliefs that social media proponents have suggested based on untested conclusions. If additional research is generated, to either confirm or deny the value of social media use by retailers, the project will have achieved its objectives.

Appendix A:

\begin{center}
\includegraphics[width=\textwidth]{chart1}
\end{center}

Appendix B:

\begin{center}
\includegraphics[width=\textwidth]{chart2}
\end{center}
REFERENCES


65) Tomasello, Tami. K., Youngwon Lee and April P. Baer (2010), 'New media' research publication trends and outlets in communication, New Media & Society, 12(4), pp. 531-548.


