Relational Capital and Media Brands

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Abstract: Continuing a research program studying new metrics for relational capital, this paper reports on a new analysis of media brands, both traditional and newer entrants. Relational capital is a key aspect of the knowledge assets or intellectual capital of the firm. Unlike human capital (job-related knowledge) or structural capital (knowledge incorporated into the firm itself), relational capital has to do with external relationships. Specifically, knowledge about handling external relationships, especially those with customers. Relational capital is not a widely studied topic in knowledge management (KM) or intellectual capital (IC), including potential metrics. Brand equity, on the other hand, is an idea from another field that is well-known and much studied. While not the same concept as relational capital, it is clearly related as brand equity comes from a history of customer interactions and the value of the relationships built by the firm. Better knowledge of what satisfies customers plays an obvious role in building brand equity. But brand equity does not have a single, recognized method for calculation. Annual reports and rankings from marketing consulting firms routinely provide estimates of brand equity for high-value, well-known brands. Most of the other brands, not so much. Even so, if we know the brands with the highest equity values and can tie some additional metrics to that status, we can begin to uncover the level of customer knowledge held by individual firms and, by extension, relational capital in a wider variety of organizations. This study focuses on a brand sentiment analysis, using commercial software from Salesforce Social Studio. The web-scraping software collects mentions of a brand (or any keyword) across the web, not only social media but reviews, aggregators, and other sources of brand commentary. From that capability, an assessment of the brand's meaning to users can be assessed at a point in time. In particular, this study looked at established media brands (New York Times, Wall Street Journal, etc.) and new media brands (Buzzfeed, Techcrunch, etc.) over a three-month period in early 2023. Data were collected on brand activity (volume), sentiment (positive/negative), sources, influencers, country of origin/language, and other indicators, including the variance of all the above measures. From there, comparisons can be made across the more established brands and the developing ones, as well as to high-equity brands from other industries (covered in other studies). As noted, some suggestions can then be made concerning what metrics to track over time to assess the ongoing value of relational capital.

Keywords: Intellectual capital, Relational capital, Brand equity, Media brands, Sentiment analysis

1. Background/Literature Review

1.1 Relational Capital

The study of knowledge assets focuses not only on identifying and leveraging such assets through sharing but also understanding them properly. With proper understanding comes a better idea on how to develop and share such assets. Consequently, not only is the distinction between tacit and explicit knowledge a common topic in the field (Nonaka & Takeuchi, 1995), but also the interest of scholars and practitioner in the different types of intellectual capital: human capital, structural capital, and relational capital (Bontis, 1999; Edvinsson & Malone, 1997).

Human capital, of course, is a central concept in knowledge management (KM) and intellectual capital (IC) as it is the stock of knowledge possessed by individuals in the firm related to performing their jobs. As such, human capital is often the main subject of KM studies. Scholars and practitioners have an interest in identifying and understanding employee knowledge about their work, then better managing it through sharing and application. From unique employee knowledge comes a unique organizational resource providing sustainable competitive advantage (Grant, 1999; Teece, 1998). This knowledge-based view of the firm is an offshoot of the resource-based view of the firm (Barney, 1991; Wernerfelt, 1984), with knowledge as perhaps the prototypical unique, uncopiable competitive resource.

Achieving that potential competitive advantage is largely dependent on recognizing and properly understanding the human capital or knowledge assets. As above, one important aspect is whether the knowledge easy-to-communicate, codifiable explicit knowledge or hard-to-explain, hard-to-codify tacit knowledge (Nonaka & Takeuchi, 1995). Whether the knowledge is more explicit or more tacit has important implications for how to manage it (e.g. through information systems vs. person-to-person) (Matson, et al., 2003; Brown & Duguid, 1991). The organizational context or social capital can also be important, with softer issues like trust, incentives, and culture bearing on KM success (Nahapiet & Ghoshal, 1998).

All of that is pretty standard KM background and clearly applies to human capital. But, as noted earlier, intellectual capital is generally seen as having three parts, human capital, structural capital, and relational capital (capital (Bontis, 1999; Edvinsson & Malone, 1997). While human capital relates to knowledge about performing one's job, structural is conceptualized as knowledge embedded in the firm, aspects like processes and procedures. If a worker leaves the organization, they take their human capital with them, but structural capital is what is retained even without all the employees (who may have originally contributed to it). Relational capital refers to knowledge about relationships with external parties such as customers, regulators, suppliers, and others (Roos & Roos, 1997). And of those, of course, customers are the most important for many firms and customer data, information, and knowledge are growing rapidly in a digital world.

Beyond definitions, IC has contributed to our understanding of knowledge assets and their differences with research on potential metrics. Well-known tools for assessing the intangible assets of the firm come out of the IC framework, tools such as the Balanced Scorecard (Kaplan & Norton, 1992) and Skandia Navigator (Edvinsson & Malone, 1997) that include human, structural, and relational/customer components. Broader measures, such as Tobin's q are easier to use when comparing across multiple firms, often contribute an estimate of the full IC holdings of the firm but can't be broken down into the individual components (Tobin & Brainard, 1979). Pulic's VAIC, popular for multi-firm studies, does include a human capital component but relational capital is combined as a single remainder with structural capital (Pulic, 2000).

Even with the emphasis on human capital and the lack of a specific metric in some frameworks, the IC community has provided some attention to relational capital. In a number of ways, it reflects a separate idea from the marketing literature, brand equity, that we'll discuss short. Conceptually, repeated satisfactory interactions between parties, in this case organization and customer, build relational capital in the same way as two employees repeatedly sharing knowledge will build human capital (Chang & Tseng, 2005; de Castro, et al., 2004). Those successful exchanges provide the organization with better knowledge of each individual customer, including their needs, wants, and buying processes. Thus, at the heart of building relational capital is engagement with customers (Sussan, 2012; Stahle & Stahle, 2012). At least the customer capital part. Again, relational capital is a wider concept concerning relationships with multiple external publics, not just customers. But in many circumstances, the customer relationships are a major part of its makeup (Gupta & Bhasin, 2014).

1.2 Brand Equity

Brand equity is a core concept in marketing, the value of a recognized brand as a business asset. Much of the value of the brand is based on accumulated positive word-of-mouth heard by and/or use experienced by the customer. In today's world, where customer interactions are recorded, stored, and analyzed by the firm, it can actually build brand equity by learning more about what resonates with customers. In effect, this knowledge about how to better develop customer relationships can be considered relational capital. As such, brand concepts may help us to better understand relational capital.

Aaker (1991) is generally everyone's first reference in branding. His initial work established the value of a brand's perceived higher quality and the price premium associated with it. Turning to brand equity, a potential value metric, he broke down the concept down into the component parts of awareness, associations, and loyalty (Aaker, 1996). One of the key points there is the associations, as brand value builds through repeated successful interactions, then leading to loyalty. The value of the brand is largely based on satisfactory exchanges with the customer. Keller (1993) made a similar case with recognition followed by repeated positive experiences establishing the brand value.

As the repeated exchanges build positive associations and loyalty, they are potentially different for every customer. The individual determines what the brand is worth to them and how much extra they would pay for it. In theory, a summation of those individual differentials would be an estimate of brand equity (Seggie, et al., 2006; Aliwadi, et al., 2003) though it fails to capture any customer surplus resulting when the customer obtains the brand for less than the value they place on it.

In practice, brand equity is more often estimated by consultancies based on proprietary methodologies including financial statements and other data sources. While they vary in their approaches (and, often, results), they do provide some idea of the magnitude of some of the largest brand equities of publicly listed firms. As with many estimates of intangible assets, the issue is found in the intangibility aspect itself. Tangible assets and firm value are included in financial reporting but intangible assets are usually not. Goodwill is an exception and included on balance sheets but is only accurate at the moment a firm is purchased and then never altered. So it is rarely useful for long.

Even so, brand equity and related concepts show a degree of interest in measuring the relationship between an organization and its customers. To the degree that continued positive exchanges build value and that ever improving knowledge about the individual customer's needs, wants, and preferences contribute to those positive exchanges, there appears to be an opportunity to connect brand metrics from the marketing side to relational capital on the KM/IC side. With the advent of contemporary digital tools such as customer relationship management (CRM) systems and digital media, perhaps the two disciplines can be brought closer together and better inform the study of each.

1.3 ICTs and Relational Capital

Digital tools are present in both brand relationships and knowledge management (including relational capital). Indeed, they are omnipresent and actually increasing in their use and impact. In the field of big data and analytics, data and information contributing to knowledge insights are increasing in volume, velocity, and variety (Rothberg & Erickson, 2017). Big data sources are varied but customer data is a big part of the volume. What potential is there in information and communication technologies (ICTs) for better understanding branding and relational capital?

ICTs are dispersed, complicated networks with identifiable users (Lechman, 2017). Communications between users or other interactions on ICTs , as in social media, generate an enormous amount of data. And, as noted above, data and information are useful in an of themselves but are also capable of becoming higher-level knowledge assets (Sigala & Chaikiti, 2014; Levy, 2009).

The DIKW (data, information, knowledge, wisdom) hierarchy is a longstanding concept in information science, dating back to Ackoff (1989) and others. As a hierarchy, the concept suggests the maturation of intangible assets, with increasing value as data and information yield insights (knowledge) and understanding (wisdom). Consequently, the wealth of data and information now available have considerable potential to add to the amount of useful knowledge or intellectual capital in organizations.

More recent work on this full range of intangible assets pulls away a bit from the hierarchical view, especially as data and information have been established as valuable assets in an of themselves. All are potentially useful and more valuable than the others depending on the circumstances, sketched out, in part, by the Cynefin framework (Kurtz & Snowden, 2006). This view brings a more KM approach to the theory, as tacit and explicit knowledge are seen as different but both of potential value. Indeed, a more recent version of the intangible asset options suggests a range moving from data/information through explicit knowledge to tacit knowledge to wisdom/intelligence (Rothberg & Erickson, 2017).

That insight raises the question of whether intellectual capital, and especially relational capital, is made up of only knowledge assets. Knowledge has value, including knowledge of customers. But so does data/information, particularly data/information on those same customers, their attitudes and their behaviors. ICTs generate a lot of data/information and understanding those better may provide insights into brand value and relational capital. Not just trying to measure customer knowledge but the full range of intangible assets associated with customers may indicate even deeper relationships related to brands and customers. ICT metrics may provide a new and better way to assess both brand equity and relational capital.

Digital media offer an especially interesting opportunity to apply ICTs to assessing brand equity and relational capital. One form of digital media would be the extensive customer relationship management (CRM) systems and the resulting deep customer databases, collecting individual data on each touchpoint with each customer. Possessing that level of detail on individual customers and their responses to interactions provides a much deeper understanding and opportunity for a much deeper relationship. Social media interactions also provide openings for deeper relationships, including user comments revealing attitudes toward brands. While sometimes uncomfortably honest about negative feelings (Royai, 2002), uncensored personal comments can provide unusually deep insights into customers' true feelings about a brand (Rizun & Kucharska, 2018). Brand equity and relational capital might remain fuzzy concepts in terms of measurement, but these new tools provide potentially valuable ways to gain a new perspective on their value.

2. Methodology

This study continues a stream of research applying new digital media data collecting techniques to assess brand value and relational capital. Past studies in this vein have looked at major consumer product brands (Erickson & Rothberg, 2017), ingredient brands (Erickson, Schmidt & Rothberg, 2020), and tech brands (Erickson, 2023). A common thread in the previous studies was the great activity and interest in the higher-valued brands. The

sentiments toward brands were actually not more positive for the high-value brands (nor more negative) but were more neutral when that choice was available. Interestingly, the sentiment for the high-value brands tended to be less variable, opinions were more entrenched and less likely to change week-to-week or month-to-month.

This study extends the methodology to the media industry. Traditional news media companies (*The Wall Street Journal (WSJ), The New York Times (NYT), The Washington Post (Wapo), and The Economist*) were tracked as were some newer, always-digital-only competitors (*TechCrunch, Buzzfeed, Mashable*). The sample was tracked over one-week, one-month, and three-month periods ending on March 31-April 1, 2023. Salesforce's Social Studio sentiment analysis program was used to gather and analyze the data, reporting on each brand mention.

Social Studio takes keywords and constructs reports over a specified time period. Major digital outlets are reviewed and included such as Twitter, Facebook, YouTube, blogs, forums (and replies), aggregators, reviews, and others. These reports include volume of mentions, sentiment (positive or negative), top influencers and their influence, country (when known), language, and the digital outlet itself. The program also provides the underlying comments themselves, allowing text analysis or additional qualitative analysis, if desired.

3. Results and Discussion

Results are presented in Table 1 (one week), Table 2 (one month), and Table 3 (three months). Included are data on the media brand's volume, sentiment, top influencers (average score of top 10 on a 0-100 scale), language, and media source. For the language and media source metrics, offering an extended list of sometimes rare possibilities, only those options with at least one reading above 2.0% were included.

Table 1: News Media Brands, Sentiment and Related Metrics (3 months)

Metric		WSJ	Economist	NYT	Wapo	Mashable	Buzzfeed
Volume		112K	356K	3.9KK	2.2KK	190K	728K
Sentiment (positive)		40.2%	48.8%	40.2%	33.1%	70.6%	62.2%
Influencers		98	98	98	98	97	98
Platform	Twitter	84.3%	85.3%	71.4%	91.6%	89.9	83.1%
	Aggregators	4.8%	1.6%	2.6%	1.7%		
	YouTube	2.0%	7.4%	4.7%	2.8%	1.9%	5.8%
	Forums	4.4%	2.6%	17.0%	1.8%		
	Blogs	2.5%		2.9%			
	Facebook					3.2%	6.7%
Language	English	54.1%	43.5%	62.3%	85.5%	91.8%	54.8%
	Spanish	19.0%	17.3%	2.5%		1.3%	2.0%
	Japanese	7.4%			4.6%	0.8%	31.7%
	Finnish			25.6%			
	Turkish		26.7%				
	Russian	2.6%					
	Portuguese	7.2%					6.1%

Over the longer period of time, some patterns relating to the brands are clear, others less so. As these are news brands, variations in volume are likely to be influenced heavily by current news topics as opposed to discussions directly related to the brands themselves. So we tracked volume but paid less attention to variance than in previous studies. Even so, the volume differences are interesting. The traditional general interest brands (NYT, Wapo) obviously have much more activity than the other new media brands. Buzzfeed shows particular strength vs. Mashable in volume between the two newer media brands. And international focus and readership (Economist, WSJ) don't necessarily translate into stronger relationships with readers, at least not when compared with the more locally/regionally focused media brands (NYT, Wapo) with both continuing to have a considerable presence in New York City and Washington, respectively. Brand connections and relational capital can apparently be stronger with more immediate connections than might be the case with a broader, more

international reach. The one-month and one-week results show similar patterns though the WSJ had a particularly active month (likely due to the arrest of one of its reporters in Russia, a major news story in which the brand was intimately involved).

Table 2: News Media Brands, Sentiment and Related Metrics (one month)

Metric		WSJ	Economist	NYT	Wapo	Mashable	Buzzfeed
Volume		45K	81K	1.3KK	773K	69K	255K
Sentiment		32.3%	43.4%	40.2%	33.1%	69.5%	67.2%
Influencers		98	98	98	98	96	97
Platform	Twitter	84.7%	85.3%	72.3%	92.8%	90.2%	84.3%
	Aggregators	4.8%	2.3%	2.6%	1.4%		
	YouTube	2.1%	5.7%	5.1%	2.7%	2.6%	5.6%
	Forums	4.0%	2.5%	15.9%	1.4%	3.1%	
	Blogs	2.5%		2.7%			
	Facebook						6.5%
Language	English	51.5%	60.4%	62.7%	87.1%	92.5%	53.5%
	Spanish	31.3%	15.2%	2.9%		1.5%	2.0%
	Japanese	5.9%			3.8%	1.0%	36.1%
	Finnish			25.9%			
	Turkish		7.2%				
	Russian	2.9%					
	Portuguese	0.8%					6.1%

Influencers show little difference between the media brands sampled. All have followers with considerable reach of their own. Even the slight differences in average top influencer rating (96 vs. 98) are so minimal as to be inconsequential. Once news media brands reach a certain level of awareness and credibility, top influencer attention seems to be a given. The one-month and one-week results show a similar consistency across all brands.

Sentiment is a different case. The results generally agree with previous findings that the more active, probably more valuable brands do not necessarily have the highest positive sentiments. Indeed, with media companies, the reach and popularity of the brand are almost inversely related with sentiment. The US-based mainstream media brands (WSJ, NYT, Wapo) are all *majority* negative sentiment. *The Economist* fares somewhat better. Interestingly, the newer, more digital-focused brands (Buzzfeed, Mashable) have very high positive sentiment, 50-100% higher than the legacy media brands. These show more movement in the one-month and one-week results but that points to the relative stability of the stronger brands, as predicted by previous research.

Table 3: News Media Brands, Sentiment and Related Results (one week)

Metric		WSJ	Economist	NYT	Wapo	Mashable	Buzzfeed
Volume		13K	18K	352K	226K	23K	53K
Sentiment		35.3%	40.1%	39.3%	28.5%	74.5%	58.0%
Influencers		98	97	98	98	96	95
Platform	Twitter	81.4%	84.8%	75.6%	95.1%	93.4%	84.4%
	Aggregators	6.8%	2.4%	2.4%	1.0%		
	YouTube	2.4%	5.9%	3.8%	1.5%	1.8%	
	Forums	4.0%	2.5%	14.3%	1.0%		4.3%
	Blogs	2.9%		2.5%			

Metric		WSJ	Economist	NYT	Wapo	Mashable	Buzzfeed
	Facebook					2.1%	7.3%
Language	**English**	75.3%	65.6%	65.7%	90.7%	93.9%	67.8%
	Spanish	3.8%	16.3%			0.9%	2.1%
	Japanese	5.2%		2.0%	3.6%	1.9%	19.2%
	Finnish			25.2%			
	Turkish		2.5%				
	Russian	5.2%					
	Portuguese	0.8%					5.5%

This difference points to some interesting capabilities of this methodological approach. As in previous studies, opinion is divided on the perceived strongest brands. Their advocates are strong supporters while the emotions engendered can be just as strong in the other direction (e.g. Apple vs. Samsung) and consistently voiced in digital arenas. But what's interesting about sentiment analysis is the ability to go deeper to investigate curious or interesting findings. Even a cursory review of chatter concerning *The Wall Street Journal* shows there is a troll who posts on virtually every tweet concerning the brand. The tweet is a canned reminder that the WSJ is owned by Rupert Murdoch's News Corp and therefore affiliated with Fox News. The constant comments aren't meant as complimentary. Similar granularity can be found when the sentiment results are paired with some of the other data, as we'll discuss shortly.

The platform results are also relatively consistent but have some noticeable differences. Twitter is by far the medium of choice for users engaging with all the media brands. The lowest percentage of activity on Twitter is 72.3% at the NYT while it ranges over 90% for Wapo and Mashable. And while a preference for Twitter is pretty consistent, there are noticeable other differences across the brands. For one, the newer digital brands (Mashable, Buzzfeed) are heavily dependent on social media for their engagement, with Twitter, YouTube, and Facebook taking the large majority of attention. The only exception is some presence on Forum pages by Mashable users. The more established media brands, on the other hand, show more of a presence in news aggregators and, especially in the case of the NYT, in forums (a starkly high 15.9%). That likely says something about the nature of the content appreciated by users (harder news?) that translates into a different brand perception. The popularity of digital media outlets doesn't vary much on the one-month and one-week results, even including the outliers such as the NYT forums.

The languages provide more context as to the brand's reach across borders, whether relational capital is localized or more global. Country metrics are available through the Social Studio system, but these are commonly limited as identification seems to be a challenge. Results often show 40-50% of source country to be unknown. But languages provide some similar and more comprehensive data. Language does have some of its own challenges (are Portuguese speakers from Portugal or Brazil? Spanish speakers from Europe or South/Central America?) but can be made pretty useful with a few reasonable assumptions. Here, Wapo, Mashable, and even to some degree the NYT are more heavily engaged with English speakers, suggesting more of a domestic brand value and relational capital. *The Economist*, unsurprisingly, has the highest following of non-English speakers with WSJ not too far behind. WSJ does have foreign editions, including a Japanese language one. Buzzfeed shows similar levels of engagement with Japanese speakers. As with the other indicators, these results are fairly stable across shorter time periods, even including the odd outcomes such as the popularity of the NYT in Finnish digital media.

The Social Studio methodology provides the interesting quantitative results reviewed but also has the capability to go deeper, on a qualitative level, into the data to explore anomalies. In the language results just covered, for example, there's an odd and consistent pattern of Finnish users engaging with the NYT brand. Given the size of Finland and its relative economic and political standing, it's just strange that it figures so prominently compared to numerous other countries. With Social Studio, that could be explored, looking in detail at what Finnish speakers are chatting about. Looking at the data also provide insights such as the WSJ troll commenting on almost every tweet mentioning the brand. One entre into the deeper analysis is text analysis, and that comes with the Social Studio results, as illustrated in Figures 1 and 2.

Figure 1: Wall Street Journal Word Cloud (one week)

Just from the word cloud summary, the WSJ (more traditional news media brand) seems more newsy, with serious topics such as their journalist Evan Gershkovich detained in Russia and more standard language such as reporting, media, etc. The Buzzfeed cloud (digital brand with a younger demographic) is more casual, with stories less about worldwide news events and politics and more about soft news topics like dogs, couples, food. Word usage is also more relaxed as illustrated by "pissed" and "prick". Again, the word clouds are more summaries of the deeper information found in the underlying qualitative results, but they indicate what general trends might be found there. And from a brand value/relational capital point of view, provide a better indicator of the nature of the relationship the brand has with its targeted customers. And what those customers value in the brand.

Figure 2: Buzzfeed Word Cloud (one week)

4. Conclusions

This study continues a research program aimed at better understanding relational capital and potential measurement approaches. In this case, the research focused on news media brands, with some long-standing, strong brand names and some newer digital-focused brands. The results show that we can identify organizations with stronger brands and relational capital by means of volume of digital media activity and sentiment levels.

The metrics can also shed light on more specifics of the relational capital. The nature of the customers, including location, global/local, and preferred digital media, can be discerned. More qualitative data, including major discussion key words and topics as well as oddities in the results, can be explored in more detail when questions come up in the more quantitative results. Overall, the approach yields a variety of different results and metrics. As a group they have considerable potential to add to our understanding of relational capital as a concept and as an organizational asset.

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