

## **Ascending and Descending Numbers in Brand Names: Does the Competitive Sports Metaphor Play a Role?**

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### **ABSTRACT**

Research on the use of number in alpha-numeric brands names suggests that consumers associate higher numbers with better performance. The current study seeks to clarify those findings by introducing the concept of the ‘competitive sports metaphor’ CSM. Using a sample of mountain bike manufacturers, the results indicate that half of those using numbers use a descending sequence to denote higher quality. A subsequent survey of those manufacturers revealed that it was due to the CSM. These findings provide preliminary support for additional research that examines consumers’ perceptions in this context.

### **INTRODUCTION**

The development of an appropriate brand name requires consideration of how that name will be perceived by the target audience. [6] It should not be surprising, therefore, that considerable attention has been devoted to understanding how brand name attributes can influence consumer perceptions. Among the attributes that have been examined are: the use of back versus front vowel sounds [8], the ease with which a brand name is pronounced [2], the effect of brand ‘gender’ names [18], the influence of the brand name structure (i.e., family brand versus sub-brand) [12], the effect of country-of-origin brand names [17], and alpha-numeric names [1].

Of these, the use of alpha-numeric names has generated some interesting findings. In a seminal study, Pavia and Costa found that the use of numbers tends to be most compatible for products that are technically-oriented or durable in nature (e.g., smart phones, automobiles). [11] Conversely, for non-durable and non-technical products, the use of numbers is less compatible. More importantly, however, they found that in situations where the relative quality of a product may be difficult to evaluate (which is often the case with technical and durable products), consumers tend to rely more heavily on heuristics to provide evidence of quality. Hence, the authors found that, in general, when “the evoked set contains products that are numbered in sequence (e.g., BMW 325, BMW 425, etc.), the participants relied on the axiom ‘bigger is better.’” (96) A notable exception to this heuristic is when the evoked set contains a single alpha-numeric brand name (e.g., Dehax 3 or Chanel No. 5). In this regard, “consumers do not consistently associate low numbers with low power; instead low numbers may indicate exclusivity or a description of the product or its ingredients.” (96)

If we accept the current evidence indicating that, under certain conditions, consumers are more likely to associate larger numbers with better performance or quality, it would make sense for manufacturers of technology-oriented and durable products to utilize an ascending, rather than descending, sequence of numbers. While intuitively appealing and seemingly well-supported by scientific and anecdotal evidence, there may an alternative explanation that supports the use of descending in some situations. Specifically, the study of semiotics would suggest that products reflecting a competitive spirit might be more inclined to use descending numbers.

To better understand this proposition, consider the meaning of numbers in competitive contexts. Simply stated, 1 is better than 2 and 2 is better than 3 because 1 signifies “first place” while 2 denotes “second place” and so on. This is the essence of what we refer to as the *competitive sports metaphor*, whereby manufacturers perceive lower numbers to be associated with better performance. If so, these manufacturers might decide to utilize descending rather than ascending numbers to denote quality/performance.

Although there are numerous industries that would appear to reflect the competitive sports metaphor, the mountain bike industry appears particularly well suited to our proposition. First, mountain bikes are becoming increasingly durable and technical in nature. With respect to durability, bicycles are typically designed to withstand a wide array of challenging physical situations and still function properly. For example, Weibe reports that Shimano sought to reduce the weight of its mountain bikes without affecting “durability”. [15] Similarly, Destefani notes how the use of “anodized frame finishes” by Trek Bicycle Corp. helps improve the “durability” of their mountain bikes. [4. p. 55] This brief review suggests that durability is a desired characteristic of a mountain bike.

In terms of technical aspects, mountain bikes appear to be increasingly technical in nature. For example, many manufacturers are now offering an internal (versus the traditional external) hub for shifting gears. [15] *Tech Briefs* notes that at least one company is offering internal hubs with three shifting options: bar-end, thumb, or downtube. [13] Technical innovation has also influenced the way bicycle frames are manufactured. McClellan, for example, talks about “superplastic forming” which is a technique that “allows for the creation of elaborate shapes from aluminum alloy tubing.” [10, p. 23] Developed by Boeing, superplastic forming was adapted to bicycle manufacturing after first being used in the aerospace and automotive industries. Hence, mountain bikes are not only durable, they are often highly technical as well.

Second, there is anecdotal evidence to suggest that the mountain bike sector reflects the competitive sports metaphor. For example, Specialized promotes their products as follows:

“Whether you prefer the endless, flowing singletrack, or bombing downhill, kamikaze-style, find the perfect ride for your favorite terrain. These mountain steeds are high-tech, fast, and tested by riders under the toughest conditions to ensure that you can crush hills and tame mountains with the best of ‘em.” (specialized.com)

Trek also promotes the competitive spirit of mountain biking: “Conquer any trail, from tame to treacherous, on the world’s finest off-road bikes” (trekbikes.com). Felt bikes is even more explicit:

“Just pull up to the start line and wait for the gun to go off; the Edict Nine 1 is primed and ready... The perfect blend of RockShox and Shimano components make the Edict Nine 1 the perfect tool to get you to the finish line faster than before” (feltbicycles.com)

This introduction is intended to provide the necessary foundation for the current study by suggesting that the mountain bike industry reflects the durable and technical criteria outlined by Pavia and Costa. Furthermore, we present anecdotal evidence that the industry is reflective of the competitive sports metaphor such that lower numbers could be inferred to be more effective than higher numbers. Hence, the rationale for sample used in this study seems well supported.

We begin our investigation with a brief review of the literature as it pertains to the use of numbers in brand names. Next, we describe the method of analysis, collect the sample of brand names and subsequently evaluate the manner with which numbers are used. We conclude with managerial and research implications as well as recommendations for future investigations in this area.

## LITERATURE REVIEW

The use of numbers in brand naming is relatively common and there is a plethora of anecdotal evidence illustrating that higher numbers reflect technological quality and/or performance quality. With regard to technological quality, the iPhone 5 is a later version of the iPhone 4, which itself was an updated version of earlier models. Similarly, the Windows software package has utilized numbers to denote technological updates (e.g., Windows 95 vs. Windows 98; Windows 7, Windows 8, Windows 8.1).

With regard to performance, Ford Motor Company produces a series of trucks with higher number representing gross vehicle weight. For example, the Ford F-250 is rated as a  $\frac{3}{4}$  ton pick-up whereas as the Ford F150 is rate at  $\frac{1}{2}$  ton. Similarly, Chevrolet manufactures a line of pick-ups that are also differentiated by gross vehicle weight with the 2500 denoting a  $\frac{3}{4}$  ton pick-up and 1500 denoting a  $\frac{1}{2}$  ton.

If we examine the use of numbers for products not characterized as either durable or technical in nature, we find that the use of numbers does not always appear to convey information about the brand, other than as an identification mark. For example, Levi's manufactures jeans with the following numerical identifications: 514, 517, 527, 550, 559, 560, 569, to name just a few. More importantly, these numbers do not designate anything about the quality of the particular jean but, instead, merely identify the style. The number, 501, for instance, is used to denote their "Original fit" jean.

Other non-technical/durable product categories also use numbers without making an explicit inference. Colt 45 Malt Liquor, for example, was named after the Baltimore Colts running back, Jerry Hill (#45). The story of how Chanel No. 5 got its name is a similarly interesting story. Although there is no definitive explanation, it has been reported that as Ms. Chanel tested each variation, she decided that the 5<sup>th</sup> bottle contained the best fragrance and that it why it is named Chanel No. 5. [3]

In terms of scientific investigations, research has built upon the earlier work of Pavia and Costa [11]. For example, Gunasti and Ross examined the influence of numbers from the perspective of a consumer's *need for cognition*. [5] They found that:

“...consumers with low need for cognition use a simple brand name heuristic and make their decisions based on the assumption that alpha-numeric brands with *higher numeric portions correspond to more advanced products*. On the other hand, those with high need for cognition process alpha-numeric brands more deeply trying to infer brand-attribute correlations and understand the relations among the brand names and attribute values.” (678, italics added for emphasis)

These results support and clarify the original findings by Pavia and Costa that the use of higher numbers to connote a more advanced product when consumer have a low need for cognition.

Yan and Duclos furthered this line of research by examining the influence of numeric levels on estimates of product size. [16] They asked respondents to estimate the onboard seat capacity of a

Boeing B767 compared to an Airbus A330. Although the actual onboard seat capacity of the two airplanes is similar, respondents estimates of seat capacity was significantly greater for the B767. This finding suggests that, in the absence of any additional framing cues, consumers are likely to infer that a larger number equates to more volume [11]

Other research has examined other contextual factors. For example, Van Kerckhove, Slabbinck, and Pandelaere sought to determine if the context of a slogan can influence perceptions of alpha-numeric brand names. [14] They found that interpretational framing can influence respondents' attractiveness toward the brand. Using the frame, "Leave it behind" as a lower-is-better interpretation frame and 'take it all' as a high-is-better interpretational frame, the results demonstrated that respondents preferred the brand with the lower number when the 'lower-is-better' frame was used and preferred the brand with the higher number when the 'higher-is-better' interpretational frame was used. Hence, it appears that supplemental branding communications influence consumers' perceptions of alpha-numeric names.

Research has also examined respondent preferences for certain numbers. Ang found that various phonetic features of alpha-numeric brand names, such as the inclusion of lucky numbers, can influence consumer perceptions of the quality of a brand. [1] This finding supports the notion that numeric presentation can influence perceptions.

In related research, King and Janiszewski demonstrated that consumers' liking of some numbers can influence preferences. [7] In particular, they found that respondents were more likely to choose options with results from a common arithmetic problem in the brand name (e.g., Zinc 24) than those with results from uncommon arithmetic problems (e.g., Zinc 31) or no result at all (e.g., Zinc). Again, while this study did not directly test the 'bigger-is-better' proposition, it further supported the notion that numbers can influence consumer perceptions about the quality of the brand.

These results support the proposition that numbers can influence consumer perceptions. Furthermore, they suggest that, in general, ascending numbers lead to interpretations of better quality/performance.

We might therefore expect that manufactures might develop brands names to reflect this information. That is, given the relatively strong evidence from consumer research, manufacturers should have a tendency to use higher numbers to indicate better quality.

A review of alternative literature suggests, however, that this might not always be the case. In particular, product categories that reflect a competitive nature might use descending rather than ascending numbers to denote better quality/performance. Although the theoretical rationale has yet to be developed in the literature, anecdotal evidence might suggest that lower numbers may be perceived by *manufacturers* to connote better quality. Specifically, in sporting events, first place is better than second place, and second place is better than third place (and so-on).

To the extent that this meaning is subsequently transferred to the naming of an alphanumeric brand, manufacturers would logically prefer to use descending numbers to denote quality. We refer to this phenomenon as the *Competitive Sports Metaphor (CSM)*. We propose that the decision by manufacturers to use descending rather than ascending numbers to connote quality can be based on their application of the competitive sports metaphor. To explore this possibility, we analyzed brand names in a relatively competitive sports category: mountain bikes.

## METHOD AND ANALYSIS

An Internet search was conducted to identify the major manufacturers of mountain bikes. This resulted in a sample pool of 29 brands. The product mix for each manufacturer was then examined for evidence of alpha-numeric brand names. It was found that of the 29 manufacturers, approximately 45 percent (i.e., 13) did not use alpha-numeric names. Of the remaining 16 manufacturers, the sample was evenly split between the use of ascending and descending numbers to denote quality (i.e., 8 in each group). The manufacturers used in this analysis are listed in the Appendix.

Although not definitive, the results provide initial support for the competitive sports metaphor. To help confirm that the results are due to the metaphor and not some other explanation, we queried the 8 companies that used a descending sequence of numbers to denote better performance/quality with the following:

“...we noticed that your brand names use descending numbers to denote higher performance/quality. Can you tell us why your company does this? We have found that many other companies do the opposite and use higher numbers to denote quality/performance”.

We did not send emails to manufacturers that used ascending numbers since the use of ascending numbers reflects conventional thought in the literature.

Although our response rates was not as high as we would have liked (3/8=37.8%) it is relevant to note that all responses were consistent with our proposition that the competitive sports metaphor influences how manufacturers rationalize the use of descending numbering to denote better performance/quality. The first response noted that: “From the early days of the sport, we have supported race teams that have continually dominated each facet of cycling. On the podium, the progression is 3rd place, 2nd place, and 1st place. This has spilled over into the nomenclature of our bikes.” The second response used similar rationale: “And in all sports, the lower number is always better. Being number 1 is always better than being number 10.” The third response also supported the competitive sports metaphor: “For us we use a 2-digit system in which the first digit correlates to the quality or level of the frame” with lower numbers denoting higher quality/performance.

## CONCLUSIONS AND RECOMMENDATION FOR FUTURE RESEARCH

The results of this study extend prior theory by providing initial support for the proposition that the competitive sports metaphor influences manufacturer decisions regarding the use of descending rather than ascending, numbers to denote higher levels of performance/quality. However, due to the exploratory nature of the investigation, additional research is warranted. In particular, research is needed to verify the results of this study in other relevant product categories. To the extent that the results are verified, research should then be conducted to determine whether or not consumers of these products perceive the meaning of the sequence as intended by the manufacturer.

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