

An Emotive Perspective on the Head Light and Tail Light Design of Different Motorbike Brands in India

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Abstract: Emotions play a significant role in the descriptions of motorbikes and biking experiences among manufacturers worldwide. Various motorbike manufacturers across the globe can be clearly differentiated on the basis of their choice of emotions and its subsequent reflection in their designing of bikes. Motorbike designers give great importance to the aesthetic illustration of these emotions. This paper investigates the aesthetic illustrations of emotions in the design of head light and tail light of motorbikes in India. The findings are based on visual design analysis of twenty motorbike models made by different manufacturers in India. The findings establish a distinct relationship between the design of head light and tail light for motorbikes belonging to the same manufacturer. This relationship was further investigated with respect to the corresponding brand personalities. The study establishes that the light designs can be seen as an emotional expression of the brand and that this emotional expression reflects the styling design philosophy of motorbike manufacturers.

Keywords: *Styling, Motorbike, Personality, and Emotion*

1. Introduction

According to Dewey (1934) the object of experience contributes to the shaping of an experience in an intellectual, emotional, or practical form. Motorbike is one such object, the design of which, contributes in shaping a particular biking experience. Design stimulates the sensory modalities of bikers to elicit emotional reactions. Visual stimulation derived from motorbike designs is therefore an important component of the biker-bike study. Cheskin and Masten Inc. (1987, as cited in Aslam, 2006) reported that imagery is the vehicle which generates interest by the way of 'sensation transference' amongst the target population. Emotions can be embedded into a motorbike by design. These embedded emotions give an emotive style to a bike. A style refers to designs which possess a few recognizable common characteristics (Pham B, 1999).

Though a designed product can trigger definite aesthetic responses among observers, it is not easy to relate these responses to the characteristics of the product (Pham, B, 1999). Emotional responses to products can be better

understood by considering cognitive (aesthetic, semantic and symbolic) responses that accompany them (Crilly, Moultyrie & Clarkson, 2004). It is in this context that this paper explains an approach to investigate the styling concept of a motorbike on semantic and symbolic parameters in general and aesthetic characteristics in particular.

2. Form follows emotions

Emotions play a significant role in the descriptions of motorbikes and biking experiences among manufacturers worldwide. Various motorbike manufacturers across the globe can be clearly differentiated on the basis of their choice of emotions and its subsequent reflection in their designing of bikes (Das & Singh, 2008).

Joy is the prime emotional expression for the Honda Motor Company. Honda expresses this emotion at all levels by following a unique philosophy of three joys which are the joy of selling, the joy of buying and the joy of manufacturing (Honda, 2009). Yamaha Motor Company on the other hand believes in its corporate mission of creating *Kando* (Japanese word for simultaneous feeling of deep satisfaction and intense excitement) in people's lives. Yamaha associates emotive keywords like sex appeal, exciting, self-expression, fun, manoeuvrability and convenience to define its "Art of motorcycling" (Yamaha, 2009). Italian manufacturers like Ducati define its motorbike styles with emotive words like aggressive, attractive, inspiring, sleek and seductive (Ducati, 2009). On the other hand, BMW symbolizes the character of German engineering by creating perfect rider machines to deliver sheer driving pleasure, luxury, comfort and excitement (BMW, 2009). The mission of enduring American brands like the Harley Davidson Motors is to ignite the passion among its riders by creating simple, familiar, ambitious and above all unforgettable experiences (Harley Davidson, 2009).

A manufacturer's choice of emotions gives a distinct emotive quality to a particular brand. Motorbike designers give great importance to the aesthetic expression of the brand emotions. The semantic transformation of the brand emotions to aesthetic design features is clearly visible in the product styling and communication strategy of various motorbikes manufacturers. The core brand values and emotions are embedded into a bike through the use of various design cues. Motorbikes are immediately recognized and related to their parent brand because of the consistent design philosophy adopted by manufacturers worldwide.

Figure 1 shows the images of five different racing sports bikes designed by five global motorbike manufacturers. Though all the bikes shown in the Figure 20 are essentially sports motorbikes designed for racing yet they can be differentiated because of their distinct styling genre. The Yamaha YZF-R6 aims at creating a *Kando* experience through its sharp razor handling and styling. The Yamaha 'fly-by-wire' throttle mechanism compliments the sharp styled bodywork in delivering ultimate acceleration and excitement. The "catch the extreme" (Yamaha- YZF-R6, 2009) communication slogan of Yamaha R6 matches its distinct character in style and performance. The Honda CBR1000RR on the other hand is more balanced in style as compared to the distinctive Yamaha R6. Honda describes this bike as "the top of superbike food chain" (Honda-CBR1000RR, 2009). Unlike Yamaha which boasts of its superb acceleration Honda highlights its combined antilock braking system and proven handling and performance in product communication. The Honda CBR1000RR has a more static, sturdy and powerful image as compared to the Yamaha R6 which has more dynamic body lines. The overall product value is

reflected in all Honda bikes as compared to radical styles and distinctive performance features which Yamaha offers. The styling differences between a Yamaha and a Honda can be seen as the reflection of their emotive design philosophy.

The BMW HP (high performance) sports bikes showcase the might of German engineering. Unlike its Japanese counterparts, the BMW HP-2 exposes most of its mechanical components : the fully adjustable Ohlin's sports front and rear suspension, radial mounted Brembo Monobloc brakes, carbon fiber aerodynamic fairing, forged racy wheels and a Moto GP inspired cockpit which computes racing data to highlight the "Passion for performance" (BMW-HP2 Sport, 2009) image of this bike. The body work too is more mechanical and geometric as compared to the organic forms seen in the Yamaha R6 or Honda CBR1000RR. On the other hand, the look and stance of a Ducati 1098 represents the Ducati heritage. Like all Ducati bikes this bike can be defined as "Pure and simple" (Ducati-1098, 2009). The monochrome body colour gives a no-nonsense attitude to all Ducati bikes. Ducati tries to make bikes which appear racy even when they are standing still. The trademark Ducati features like high tail section, compact front end, under seat twin silencers and single sided swing arm differentiate this Italian beauty from other sports bikes in its category.

The Harley Davidson sports bikes (Sportster series) take the Harley DNA onto the race tracks. The Harley Davidson Nightster model shows off its low suspension, bare-knuckle styling, chopped front fork, chopped rear fender, chrome slash-cut exhausts, black mounted headlamp and visor, black low rise handlebars, peanut fuel tank and black sliders on front forks with black gaiters. The solo seat of this bike promises an unforgettable Harley experience to its rider. Unlike the feeling of Honda's "Joy" or Yamaha's "*Kando*" the Nighster promises "Kick to the gut" (Harley Davidson-Nightster, 2009) riding experience.



YAMAHA YZF- R6



HONDA CBR1000RR



DUCATI 1098



BMW HP2 SPORT



HARLEY XR 1200

FORM FOLLOWS EMOTION

Figure 1: Comparison of sport bikes designs of global motorbike manufacturers.

3. Semantic transformations of brand personalities into lighting design of motorbikes in India

Design can be used to strategic advantage by enhancing the brand identity of a company (Borja, 2004; Schmitt & Simonson, 1997; Stomppff, 2003). According to Karjalainen (2007) companies must develop products with designs which not only appear attractive but also carry distinctive references to the core values and the character of the brand. Chan and Sanders (2004) emphasized that the brand essence reflects the personality of the brand and allows customers to emotionally connect with the brand.

Figure 1 illustrates that in addition to informing us about functional properties, motorbike design acts as a carrier of brand's emotions as well. The symbolic associations and meanings related with design features give a distinct personality to motorbikes associated with a particular brand. It is in this context that this paper investigates the semantic transformation of brand personalities into recognizable characteristics of motorbikes in India. Designers incorporate various implicit value based design cues and explicit artificial design cues while designing new motorbikes. The paper focuses on the implicit value based design cues rather than the explicit artificial design cues (Crilly, 2005; Karjalainen, 2004, Karjalainen & Warell, 2005). Though the implicit references are often not immediately perceived or recognized but they represent the generic design philosophy of the brand which enhances its overall image and recognition (Karjalainen, 2007). The consistent use of these implicit design cues enable companies to differentiate their products from their competitors.

3.1 Study 1: Visual design analysis of head light and tail light designs of Indian motorbikes

In various studies conducted by the authors to investigate the styling preferences of bikers in India, it was found that the head light and tail light are one of the most distinctive features of any motorbike. A motorbike is often recognized by the design of its light. Manufacturers often use design cues to give a distinct identity to their bikes. In spite of being one of the most highlighted styling features the head light and tail light is always seen in isolation due to their location on a motorbike. It was for this reason that it was decided to investigate the presence of any significant relationship between the head light and tail light designs of different motorbikes in India.

Procedure

The study was based on a systematic review of more than twenty popular motorbikes manufactured by Honda, Hero Honda, Yamaha and Bajaj in India. The study was conducted in a workshop setting with 20 students at Indian Institute of Technology, Delhi. In the first phase of the study the participants were asked to study the motorbikes on campus with special focus on their lighting designs and to describe the shape of the lights using keywords. In the second phase a database of front and rear view photographs of bikes was created for the purpose of the study. The images were further edited using Corel Draw X4 software to highlight the head light and tail light profiles. The participants were then asked to assign a keyword from the identified cluster of keywords to each of the motorbike photograph. And finally the images were reviewed by the participants to study the visual relationship between the head light and tail lights of different motorbikes.

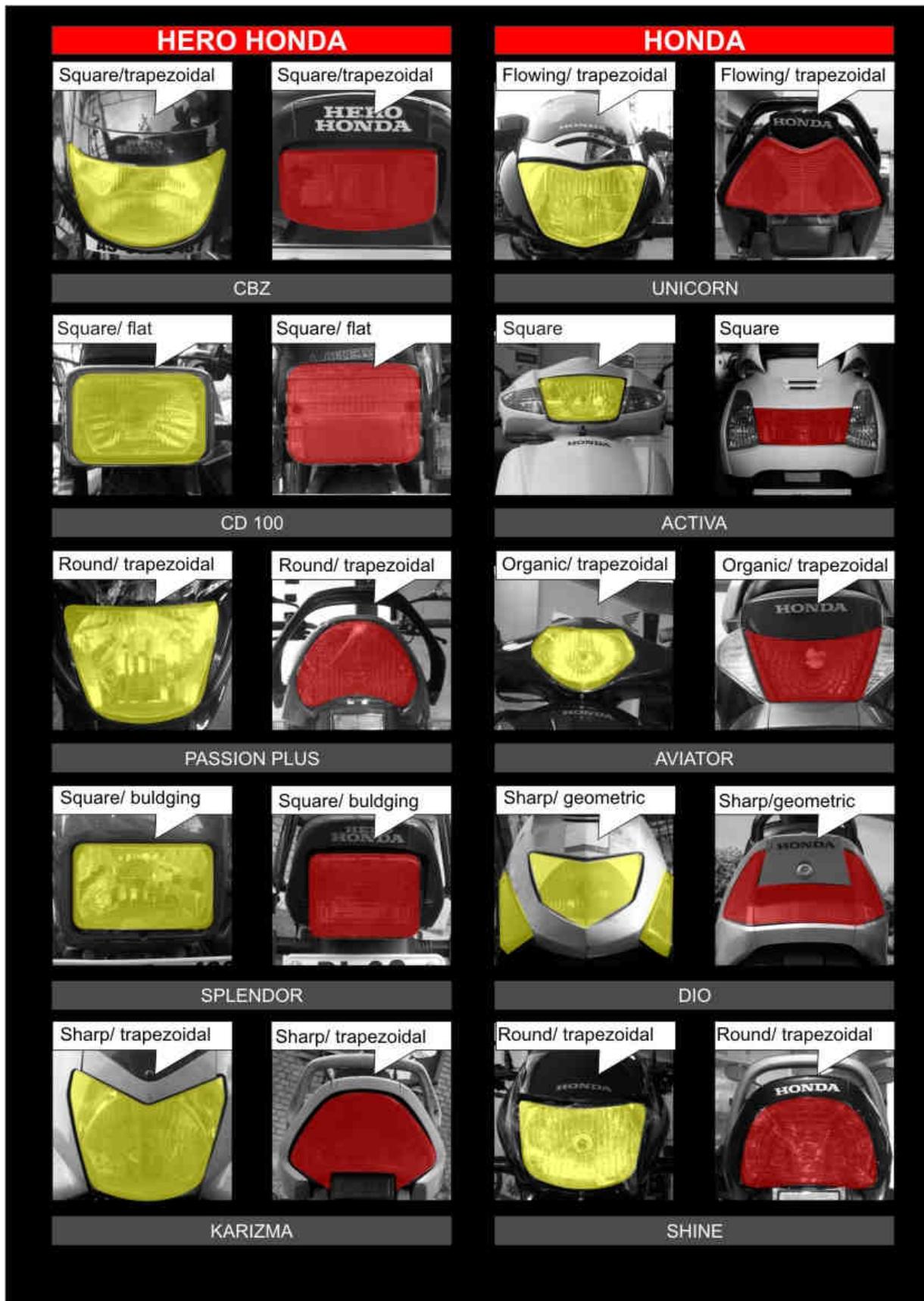


Figure 2: Congruent relationship between head light and tail light profiles of Honda and Hero Honda motorbikes.

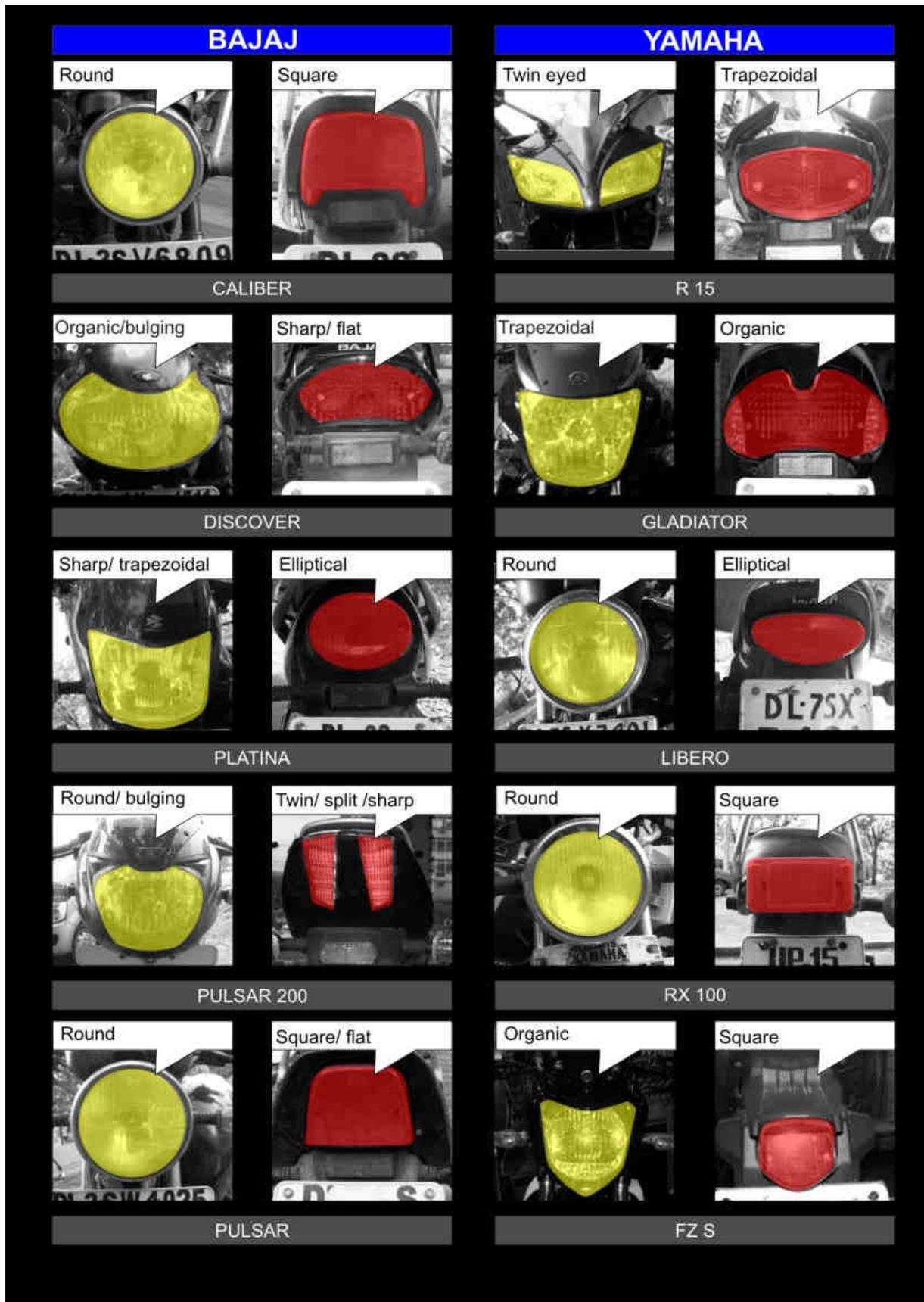


Figure 3: Incongruent relationship between head light and tail light profiles of Bajaj and Yamaha motorbikes.

Results

The following twelve keywords were attributed by the participants to the designs of the lights in the first phase of the study- square, round, trapezoidal, sharp, flowing, geometric, organic, twin-eyed, split, bulging, elliptical and flat. Figures 2-3 show the compilation of the twenty different bikes along with the dominant keywords attributed to the images by the participants. More than 90% of the participants could identify a congruent relationship between the head light and tail light designs of all Hero Honda and Honda motorbikes. On the other hand 75% participants spotted distinct dissimilarities in the front and rear light profiles of Bajaj and Yamaha motorbikes.

3.2 Study 2: Investigating the brand personalities of Indian motorbike manufacturers

Various researchers (Karjalainen 2004; Krippendorff, 1989 and 2005; Monö 1997; Muller, 2001; Vihma, 1995) have developed semantic design analysis techniques to study the symbolic associations and meanings associated with products. Mano (1996) developed adjective checklists to measure the sensory-aesthetic aspect of emotional experiences and relate those experiences to pleasure and arousal dimension of emotion. Researchers (Hassenzahl, 2000; Hollbrock & O'Shaughnessy, 1984; Kim & Moon, 1998) have developed and used semantic scales and emotive words as tools to measure emotions in product and advertising. The studies highlight the importance of emotive words in measuring and evaluating the symbolic meanings associated with products. In one of the studies on motorbike emotions, Das and Singh (2008) developed a biker-bike personality measurement instrument by identifying a cluster of fourteen adjectives that can act as personality variables relevant to motorbikes in India. This measurement instrument was used to investigate the brand personalities of the four motorbike manufacturers selected for the study.

Procedure

Phase 1: An online word count and frequency study was conducted on four Indian two-wheeler manufacturers websites (1) Hero Honda Motors Limited (www.herohonda.com), (2) Bajaj Auto (www.bajajauto.com), (3) Yamaha Motor Company India (www.yamaha-motor-india.com) and (4) Honda Motor Company India (www.honda2wheelersindia.com). The Inspyder Inside Inc. word count software was used for the purpose of study (see Figure 4).

Phase 2: The database of words generated in Phase 1 of the study was cross linked to the cluster of 14 motorbike personality variables developed by Das and Singh (2008). The 14 personality variables are as follows:

- | | |
|-------------------|-----------------|
| 1. Formal | 2. Emotional |
| 3. Professional | 4. Sporty |
| 5. Extraordinary | 6. Popular |
| 7. Self-focused | 8. Friendly |
| 9. Aggressive | 10. Comfortable |
| 11. Sharp | 12. Heavy |
| 13. International | 14. Traditional |

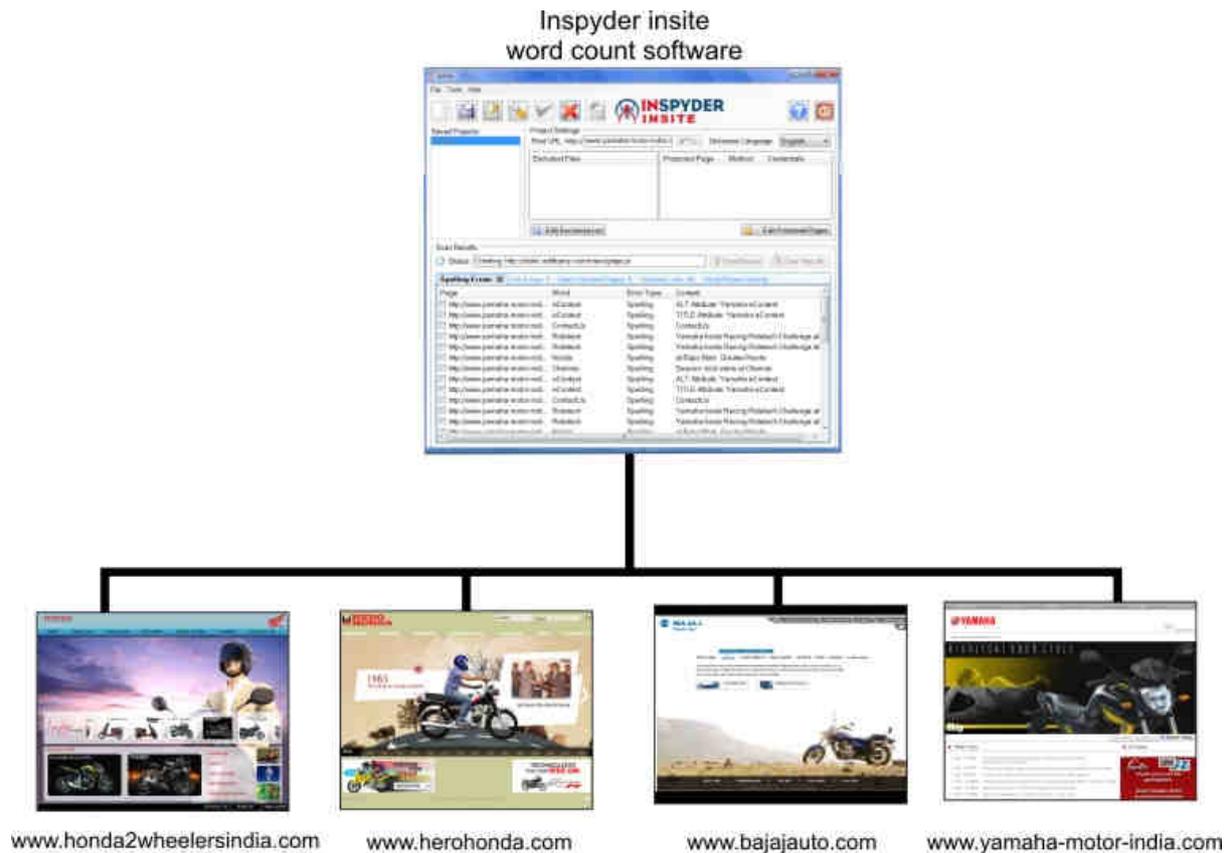


Figure 4: Word count analysis conducted on four motorbike websites using Inspyder Insite software.

Results

A total of 2848 unique adjectives were identified from a database of 125347 words that was generated from the word count study on selected motorbike websites (see Table 1). More than 409 web pages and 1674 web links were analyzed in the study. The Figures 5-8 shows the comparison of the four motorbike manufacturers on the 14 personality variables. The dominant brand personalities identified on different websites are as follows:

Hero Honda	: Friendly; Comfortable; International
Honda	: Comfortable; Sporty; International
Bajaj	: Mean; Heavy; Professional; International; Aggressive
Yamaha	: Aggressive; International; Sporty.

Figures 5-8 show distinct similarities between the brand personality of Hero Honda and Honda motorbikes. Both the companies use words like comfortable, friendly, popular, and international to define their motorbikes. Similarly Bajaj and Yamaha choose emotive words like mean, aggressive, sporty, international, emotional and professional to define their bikes. The findings establish the brand personalities of Honda and Hero Honda are different from that of Yamaha and Bajaj.

INSYPER INSITE WORD COUNT WEB ANALYSIS

Company website	HERO HONDA	YAMAHA	BAJAJ	HONDA	TOTAL
Total no. of words	64402	9556	28452	22937	125347
Unique words	6703	2437	5573	3379	18092
Webpages	80	78	124	127	409
Links	255	322	385	712	1674
Total adjectives	9490	1622	5024	3609	19745
Unique adjectives	1059	362	848	579	2848

Table 1: Result of word count web analysis conducted on motorbike manufacturers' websites.

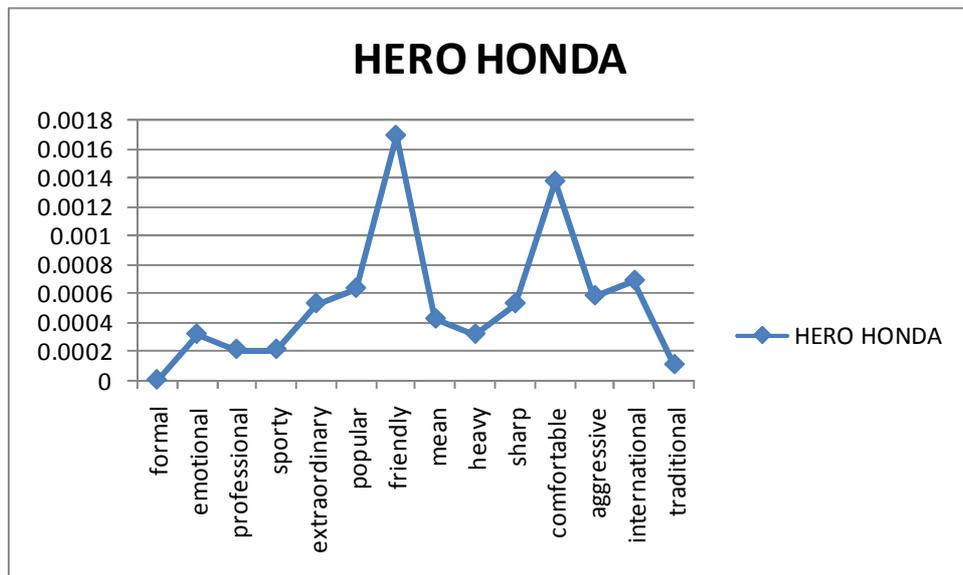


Figure 5: Personality of Hero Honda motorbikes.

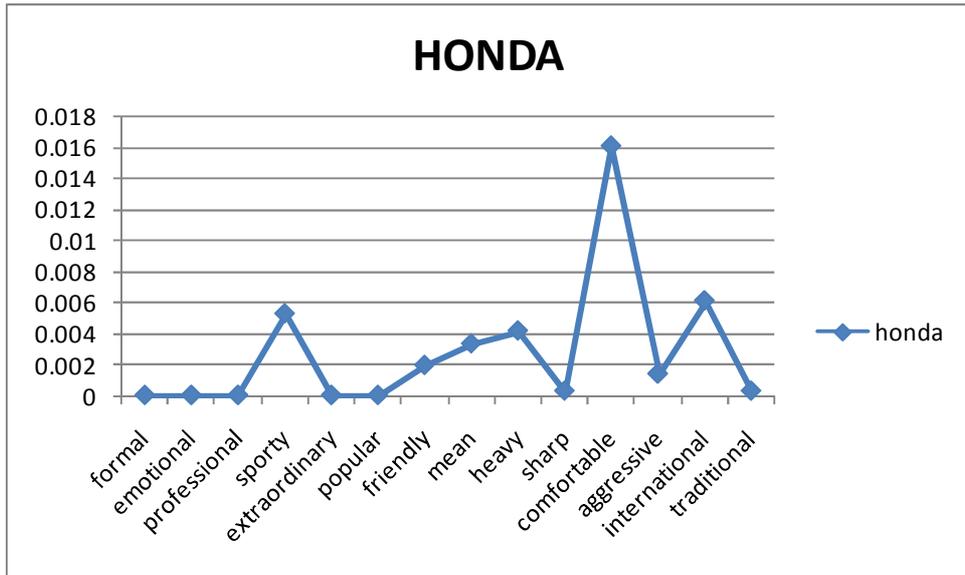


Figure 6: Personality of Honda motorbikes.

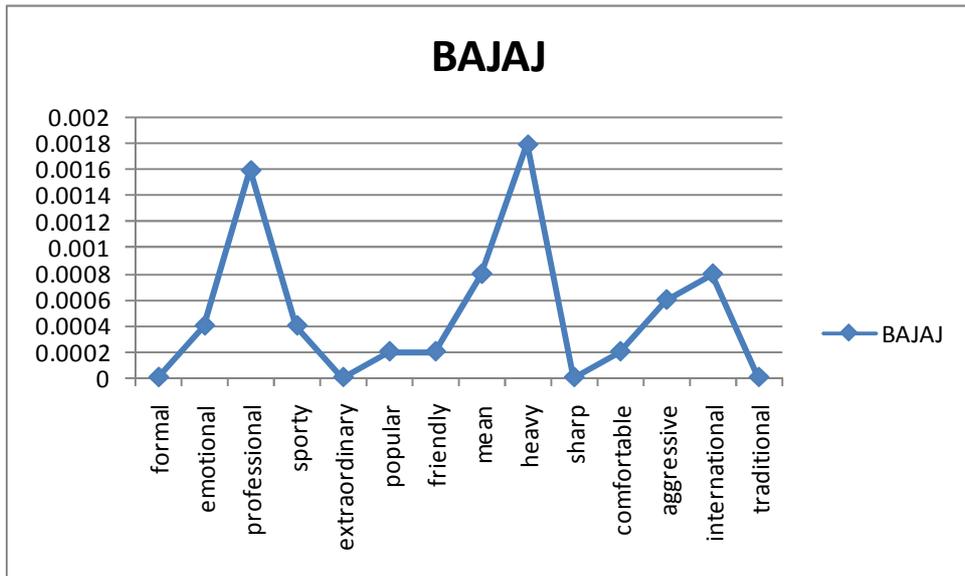


Figure 7: Personality of Bajaj motorbikes.

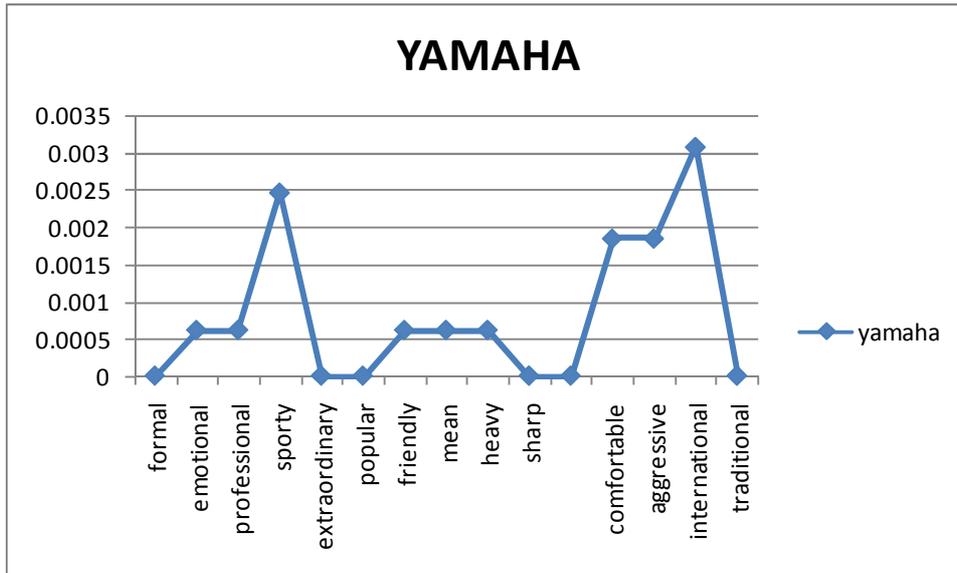


Figure 8: Personality of Yamaha motorbikes.

4. Conclusion

The results of the study imply a clear connection between the implicit value based design cues and brand personalities of the selected motorbike manufacturers. The findings emphasize that both Hero Honda and Honda not only share common brand personalities but also use similar congruent relationship in designing the head light and tail lights of their motorbikes. On the other hand it is seen that Yamaha and Bajaj too share common brand personalities in India and focus on developing incongruent and distinct designs of head light and tail light.

Though the customers may not recognize the relationship between the head light and tail lights of motorbikes but such a relationship reflects the core brand values of the companies. Also over a period of time the motorbikes start symbolizing these brand values. The findings suggest that congruency in the head light and tail light profiles may enhance the brand personality represented by words like 'comfortable and friendly'. Honda consistently follows this design philosophy in all their motorbikes in India. It is therefore not surprising that why Honda motorbikes actually look more comfortable and friendly. On the other hand the incongruent relationship between the head light and tail light profiles give an aggressive, sporty and mean character to a bike. Distinct and incongruent shapes of lights therefore reflect the brand personality of Yamaha and Bajaj. It is for this reason that Honda motorbikes look conservative and obvious in their design language whereas the bikes from Yamaha and Bajaj stable tend to surprise its customers with unthinkable and out of the box designs. This can also be related to the ultimate pursuit of 'Joy' and 'Kando' by Honda and Yamaha respectively. However the study does not focus on the differences between the designs of light and brand personalities that may exist between Honda and Hero Honda or Bajaj and Yamaha.

The study brings forth an approach for investigating the relationship between brand personalities and implicit value based design cues among motorbikes in India. The methodology can be adopted to further investigate into other design features of a motorbike and to conduct similar studies among motorbikes across the globe.

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