

Practical Application of Visual Communication Theory in the Design of the Hulk's Visual System

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Abstract. This study probes into the design and influence of the Hulk's visual appearance within the Marvel Cinematic Universe through a combined-methods approach with three main aims: clarifying how the fundamental visual aspects of the Hulk correspond to the tenets of Brand Visual Identity, examining the way in which the equilibrium between visual consistency and creative variation shapes audience perception, and exploring what makes a superhero look instantly recognizable and unique—and how does that affect whether fans connect with them and buy related products? This research set out to explore exactly that, comparing how different major studios handle the visual identity of their superhero IP. This paper dove deep into 12 MCU films, 30 official merchandise items, and 50 promotional posters, and spoke one-on-one with 15 industry experts. It became clear that the Hulk's “green skin and purple clothing” are at the heart of his look. While these core elements stay consistent across movies and merch, they don't leave much room for creative variety in spin-off designs. In the end, this study doesn't just point out trends—it offers a clear framework and actionable ideas for managing superhero visuals, with useful applications across the wider entertainment industry.

Keywords: Visual Identity System, Brand Strategy, Qualitative Research, Consumer Perception, Engagement

1. Introduction

In today's digital era, superheroes are no longer just characters from comics or movies—they've grown into something more. They live in minds not only through stories but through the colors, shapes, and symbols that make them instantly recognizable. These visual identities do more than catch the eye; they build emotional bridges across cultures and generations, turning fictional heroes into lasting parts of the lives:

The seamless incorporation of digital technology into the worldwide entertainment sector has turned superhero Intellectual Property from being just a content medium into a full - fledged brand emblem and its Visual Identity system has become a crucial link for reaching out to the target audience; a 2024 industry report by McKinsey & Company pointed out that the global superhero IP market size surpassed \$80 billion in 2023 and visual spin - offs like toys, clothes, and digital visual elements accounted for 35% of the total income [1]; it was noteworthy that IPs having clear and

stable visual signs such as Marvel's Iron Man showed a 47% greater likelihood of users paying compared to those with vague or unstable visual appearances.

From the consumers' point of view, Generation Z has a strong inclination towards visual emotional bonds and in 2023, a Pew Research Center survey found that 72% of Gen Z participants were active in sharing content related to intellectual property mainly because of "alluring visual images [2], which was in line with findings from cognitive psychology research showing that people remember visual information 62% more effectively than text - based information [3], also at that time, the fragmented characteristics of modern digital media for instance, short - video platforms such as Douyin and TikTok had made the significance of distinctive visual symbols even greater and symbols like the green skin of the Hulk were very important since they could catch users' attention within 0.3 seconds, which was a vital period for information processing in fragmented situations [4], so in this context, the Marvel Cinematic Universe kept a consistent visual system for the Hulk for over 15 years, making changes to the costume design but maintaining the key visual features, and this continuous practice had established an industry standard, emphasizing the need for methodical research on the design and influence of the Hulk's visual system.

1.1. Research questions

Behind every iconic superhero lies a powerful visual language. What makes the Hulk not just a character, but an enduring global symbol? This study explores the design, impact, and business value behind his visual identity—unpacking how a consistent look builds recognition, fosters loyalty, and drives engagement across generations:

- RQ1: What fundamental components, such as hue, shape, attire, and typeface, make up the Hulk's visual framework in the Marvel Cinematic Universe, and in what ways do these components conform to the principles of Brand Visual Identity, like unity, identifiability, and expandability? How do visual communication theories - particularly Gestalt principles and brand semiotics - contribute to strengthening the Hulk's brand recognition?
- RQ2: What is the means by which the equilibrium between "recognition" and "distinctiveness" in the Hulk's visual symbols impacts user engagement, including content sharing, peripheral buying, and associated behaviors, and promotes the transformation of commercial value?
- RQ3: In the case of superhero intellectual properties, do the distinctions in visual approaches between Marvel, DC, and Legendary Pictures result in substantial differences in brand awareness and user loyalty? If yes, what are the crucial distinguishing elements?

1.2. Research hypotheses

For a brand like the Hulk, longevity is built on a core visual pillar, yet sustained by thoughtful and timely reinvention:

- H1: The cross - media constancy of the Hulk's fundamental visual motifs "green hide + purple garb", which was operationalized by how often they showed up in movies, official around products, and promotional stuff, demonstrated a statistically substantial positive connection with Marvel's brand awareness and particularly, the more frequently one was exposed to them, the stronger the users' memories and associated bonds to the Marvel brand became.
- H2: Presenting scenario-based visual variations instances, space-themed armor in science fiction stories, and special-occasion costumes for seasonal promotions would considerably enhance users' recognition of the Hulk's derivative visual elements, and this approach was anticipated to alleviate the problem of "lack of distinction due to excessive dependence on central symbols."

1.3. Literature review

The secret to a lasting IP lies in a dynamic visual playbook—one that masterfully blends signature elements with timely updates, a nuanced balance existing research has yet to fully decode.

A comprehensive literature review reveals three primary research gaps in superhero IP visual studies:

- **Consumer - Centric Research Gaps:** Smith et al. set up a connection between the color symbols of IP and consumers' purchasing choices, demonstrating that certain combinations could arouse positive buying inclinations [5], and in the same way, Lee probed into the relationship between the uniqueness of symbols and users' memory holding power, concluding that highly individualized visuals enhance long - term remembrance [6], nevertheless, these researches failed to tackle the dynamic equilibrium between "recognition" and "distinctiveness," nor did they look into how this equilibrium affected user conduct other than purchasing, for example, content interaction and brand promotion.

- **Brand - Centered Research Gaps:** Garcia examined Marvel's intellectual property commercialization and specified how visual symbols contributed to generating income from derivative works and cross-border cooperation [7], but failed to thoroughly explore how the design of visual elements was connected to brand recognition and then transformed into commercial value, so the causal relationship between visual strategies and business results remained inadequately explored.

- **Cross - Brand and Theoretical Application Gaps:** Wang et al. probed into IP communication approaches on digital media, stressing the features of platforms during content spreading [8], nevertheless their study failed to take into account the adjustment of visual symbols across diverse platforms for instance, social media in contrast to e - commerce, moreover the utilization of well - known visual communication theories, like Gestalt principles which account for how users view overall patterns, still has not been fully exploited in IP visual research and lastly comparative research on visual strategies among big studios such as Marvel, DC, and Legendary Pictures is few and far between, which impedes a comprehensive comprehension of the best practices within the industry.

2. Methodology

2.1. Research design logic

To tackle the intricate research questions, this study utilized a mixed - methods design which combined qualitative and quantitative methodologies and was backed by Creswell's claim that mixed methods were especially efficient for complicated issues as they merged the profundity of qualitative investigation with the width of quantitative examination [9], and the research procedure adhered to a sequential explanatory design divided into three stages:.

- **Qualitative Exploration Phase:** Content analysis and in-depth interviews identify the Hulk's core visual elements, extract design logic from practitioners, and capture user perceptions.

- **Quantitative Verification Phase:** A structured questionnaire tests the correlation between the visual recognition independent variable and the brand recognition dependent variable, verifying the research hypotheses.

- **Integrated Analysis Phase:** Qualitative findings, for instance, the indispensability of green skin, were utilized to expound on quantitative outcomes, such as the strong connection between green skin identification and brand recall, guaranteeing a thorough comprehension.

2.2. Qualitative research

2.2.1. Content analysis

This paper decodes the Hulk's visual system and its evolution through a mixed-method approach, blending quantitative content analysis with qualitative expert insights:

The research targets including as follow: the sample for content analysis consists of: (1) 12 Marvel Cinematic Universe movies with the Hulk from 2012 to 2024 such as *The Avengers*, *She - Hulk: Attorney at Law*, (2) 30 official Hulk accessories including action figures, clothing, and home decoration items, and (3) 50 promotional posters for these films and products, and this choice guarantees coverage of various time periods and visual application situations.

Analysis Framework: A two-level coding system was developed based on Krippendorff's content analysis methodology [10].

- **First - Level Coding:** Concentrate on objective visual aspects such as (a) hue the RGB figures for greenish skin and purplish costume, saturation level, contrast, (b) physique proportion of muscles, comparative body dimensions, facial expressions, (c) attire texture of the material, ornamental particulars, functional planning, and (d) typeface style, magnitude, color of the related text.

- **Second-Level Coding:** Associated first-level elements with VI principles, including (a) unity consistency across materials, (b) recognizability elements that were frequently mentioned as crucial identifiers during interviews, and (c) extensibility, the capacity to adapt to various derivatives.

- **Reliability Assurance:** Two researchers independently coded 20% of the sample. Krippendorff's alpha coefficient was 0.87, exceeding the 0.8 threshold for acceptable reliability in social science [11]. Discrepancies were resolved through discussion with a visual communication specialist.

2.2.2. In-depth interviews

Beyond the data lies human insight. This paper gathered perspectives from designers, fans, and marketers to uncover the stories behind the visual patterns:

- **Participant Selection:** purposive sampling recruited 15 participants from three stakeholder groups: (1) 5 senior Marvel designers with 5+ years of IP visual design experience; (2) 5 leaders of MCU fan communities; and (3) 5 IP marketers experienced in superhero IP commercialization.

- **Interview Protocol:** Semi-structured interviews that lasted between 45 and 60 minutes were conducted, and the guide encompassed three aspects, namely (a) design rationale, such as "What factors led to the choice of green skin and purple costume?", (b) consumer perception like "What kind of fan feedback is there regarding derivative visual designs?" and (c) cross-brand comparison, for example, "In what ways does Marvel's visual plan for the Hulk vary from DC's one for Batman?"

- **Data Analysis:** The interview transcripts were subjected to analysis through Braun and Clarke's six-phase thematic analysis [12], and the principal themes encompassed "having green skin as an inalienable central component," "derivative designs strike a balance between recognition and novelty," and "Marvel's visual style gives precedence to being user-friendly."

2.3. Quantitative research

2.3.1. Sample and variable design

This paper surveyed 500 young Marvel viewers across China to test a simple hypothesis: that seeing the Hulk directly strengthens brand recall.

- **Sample Features:** Convenience sampling enlisted 500 viewers of Marvel Cinematic Universe with the inclusion requirements being that they should be aged between 18 and 35 (which corresponds to the age range of the main consumers of superhero Intellectual Property [2] and have seen no less than two MCU movies featuring the Hulk; moreover, the survey was spread out over 15 Chinese cities to ensure geographical variety and after removing invalid responses such as those completed in less than three minutes or containing self - contradictory answers there were 492 valid questionnaires left achieving a response rate of 92%.

- **Variable Operationalization:**

- **Independent Variable:** Recognition of the Hulk's visual elements, measured with 4 items on a 5-point Likert scale, "Strongly disagree" to 5="Strongly agree". Sample item: "I can quickly identify the Hulk by his green skin."

- **Dependent Variable:** Marvel's brand awareness was measured by means of three items utilizing a 5-point Likert scale, and an example item was "The visual appearance of The Hulk aids me in recalling the Marvel brand."

- **Reliability Testing:** Cronbach's alpha was 0.82 for the IV scale and 0.79 for the DV scale, both exceeding the 0.7 threshold [13], indicating acceptable internal consistency.

2.3.2. Data collection and analysis

The survey data were collected and analyzed through the following rigorous procedure to ensure the validity of this paper's findings:

- **Data Collection Procedures:** The questionnaire was spread online through WeChat and Rednote between March and April 2024, and a trial run involving 30 participants clarified any unclear items, while the participants were told about the aim of the study, and their responses were guaranteed to be confidential.

- **Data Analysis Methods:** Data were processed using SPSS 26.0.

- (1) **Descriptive Statistics:** Summarized demographic characteristics and core variables, mean, and standard deviation.

- (2) **Pearson Correlation Analysis:** Investigated the association between the Independent Variable and the Dependent Variable, set the significance threshold at $p < 0.05$, and interpreted the correlation figures in accordance with Cohen's directives [13], which confirmed Hypothesis H1.

2.4. Research process

The study followed the sequential explanatory mixed-methods procedure specified in Section 2.1, which made certain that qualitative understandings guided the quantitative stage and quantitative outcomes were expounded in light of qualitative discoveries, thus strengthening validity and profundity.

3. Application

This study utilized a combined-methods design, qualitative and quantitative, to probe into the visual system of the Hulk IP as well as its influence on brand recognition, which united the profundity of qualitative research with the vastness of quantitative research and allowed for a thorough solution to intricate research issues Creswell [9].

3.1. Qualitative research

3.1.1. Content analysis

Research subjects: 12 works from the Marvel Cinematic Universe that feature the Hulk, 30 official peripheral items, and 50 promotional posters, and a two - tiered coding method was utilized Krippendorff, [10], where the first - level coding aimed at visual components, such as color, figure, costume, and font and the second - level coding associated these visual components with the principles of brand Visual Identity like unity, recognizability, and extensibility, and two codifiers carried out the coding work and the Krippendorff's alpha coefficient reached 0.87 which is higher than 0.8 thus fulfilling the reliability criteria.

3.1.2. In-depth interviews

A total of 15 people were interviewed including 5 Marvel designers who had more than 5 years of professional experience, 5 leaders of MCU fan communities managing communities with over 1,000 members and 5 IP marketers; semi - structured interviews lasting from 45 to 60 minutes covered topics like visual design logic, consumer perception and cross - brand differences and the interview transcripts were analyzed by means of thematic analysis Braun & Clarke, [12] to extract core themes for instance "green skin as an irreplaceable element".

3.2. Quantitative research

3.2.1. Sample & variables

A sampling approach known as convenience sampling was employed for sample selection. 500 individuals who watched MCU, age range 18 – 35, from 15 cities across China, were chosen, and this is in line with the traits of the key consumer group for superhero IP, Pew Research Center, [2]. Variables were defined thusly.

Independent Variable: Recognition of Hulk's visual elements, 4 items, e.g., "I identify the Hulk through his green skin." Dependent Variable: Brand recognition, 3 items, e.g., "The Hulk's visual image helps me remember Marvel".

A 5-point Likert scale was utilized for measurement, and the outcomes of the reliability tests demonstrated that the Cronbach's alpha coefficient for the independent variable was 0.82, while that for the dependent variable was 0.79, which signified excellent reliability [13].

3.2.2. Data collection and analysis

Between March and April 2024, online questionnaires were disseminated through the WeChat and Red Note platforms and in total 535 questionnaires were retrieved, when invalid ones like those with overly brief completion times or self - contradictory responses were excluded, 492 valid ones

remained which led to a valid response rate of 92%, SPSS 26.0 software was utilized for data processing, first descriptive statistics such as frequency, mean, and standard deviation were used to arrange the demographic features of the sample for instance age and gender as well as the mean and standard deviation of the core variables, second Pearson correlation analysis was carried out to examine the correlation between the independent and dependent variables by means of the correlation coefficient and the significance level [13], this verified that there was a significantly positive correlation between them and offered quantitative backing for the conclusions of the qualitative research.

4. Cause-solution mapping

To diagnose the barriers to the Hulk IP's visual resonance, this analysis moves beyond a simple list of problems. Table 1 structures an inquiry into key challenges—from recognition to commercial value—by mapping their underlying causes to actionable solutions. This framework provides a strategic roadmap for revitalizing the brand's connection with a contemporary audience.

Table 1. Issue-cause-solution mapping for Hulk IP's visual system & brand recognition

No.	Core Issue	Underlying Cause	Corresponding Solution
1	Low recognition of Hulk's visual variants	Over-reliance on "green skin + purple costume" a single visual symbol, ignoring derivative visual differentiation	Develop scenario-based visual variants while retaining core symbols; promote variants via short videos to enhance recognition
2	Weak user engagement with visual content	Lack of interactive mechanisms for visual participation	Launch "Hulk Visual Creation Contest" ; reward outstanding works with official IP derivatives to stimulate participation
3	Homogeneous visual marketing across platforms	Uniform visual content on WeChat, Red Note, and other platforms, failing to adapt to platform characteristics	Customize visual content by platform: short comics on Red Note, interactive visual quizzes on WeChat, and dynamic visual clips on Douyin to match user habits
4	Insufficient commercial value of visual symbols	Limited cross-border cooperation types narrow visual application scope	Expand visual collaboration to daily necessities , use unique visual elements as co-branding highlights

4.1. Low recognition of Hulk's visual variants

The crux of the matter was that Hulk's derivative visuals had low user recognition because of excessive dependence on the central symbol of "green skin + purple costume", and as a result, most manifestations such as films, peripherals, and posters lacked distinctively designed elements for diverse situations, so the remedy was to create variants tailored to specific scenarios like "space - themed armor" for science - fiction content and "winter - style clothing" for holidays while retaining the core symbols, and then promote them through short - video platforms such as Douyin and TikTok with dynamic demonstrations like armor glowing effects to enhance recognition.

4.2. Weak user engagement with visual content

Users demonstrated low engagement towards Hulk's visual content due to the absence of interactive visual creation mechanisms as the majority of the content was officially made and there were no channels for fan participation so to rectify this, launching "Hulk Visual Creation Competitions" for

instance, fan - designed peripherals, poster redesigns and rewarding excellent works with limited - edition IP derivatives could stimulate participation and reinforce emotional bonds.

4.3. Homogeneous visual marketing across platforms

Hulk's visual promotional activities show a lack of diversity across different platforms as identical stuff like static posters and product images were utilized on WeChat, Red Note, and so on without regard to the specific user behaviors of these platforms; it was essential to tailor the content according to the platform, for instance, presenting short comic strips on Red Note, creating interactive visual quizzes on WeChat, and showing dynamic video clips depicting Hulk's alterations in appearance on Douyin to fit in with the characteristics of each platform.

4.4. Insufficient commercial value of visual symbols

The commercial potential of Hulk's visual motifs has been largely underutilized because of the scarcity of cross - border partnerships mainly in areas like toys and apparel and a restricted range of applications; if their were to broaden these cooperations to include daily essentials, such as Hulk - themed pillows and lamps and digital items, like app interfaces and game avatars, and emphasize distinctive visual aspects, for example, the green skin texture and muscled contours as joint - branding USPs, then that could tap into the maximum commercial value.

5. Limitations

The Hulk's iconic visuals are a double-edged sword: they create instant recognition, yet pose distinct challenges for brand evolution.

This research delved into the design features of the Hulk Intellectual Property's visual system within the Marvel Cinematic Universe as well as its influence on brand identification, pinpointed crucial matters, and put forward specific solutions. Showed that: First, the central visual emblem of "green skin + purple attire" promoted high brand identification yet restricted the distinction in derivative designs; Second, feeble interactive elements led to low user interaction with visual components; Third, similar cross - platform marketing and a limited scope of commercial cooperation failed to fully utilize the value of visual symbols, and these discoveries furnished practical advice for enhancing the visual plans of superhero intellectual properties [14].

This study aids in comprehending how central visual motifs strike a balance between "recognition" and "differentiation" within Intellectual Property undertakings and offers practical strategies, for instance, scenario-based visual variations, platform-targeted marketing for Marvel and other entertainment brands to augment the visual worth of their IPs.

Future research ought to look into cross-cultural distinctions regarding the perception of the Hulk's visual symbols throughout global markets, which would further enhance the theoretical framework for the visual management of superhero intellectual properties.

6. Conclusion

This study explored how the visual identity system (VIS) of the Marvel Cinematic Universe (MCU)—particularly through the symbolic representation of the Hulk—contributes to brand recognition, audience engagement, and cross-media communication effectiveness. By integrating the theoretical framework of visual communication and brand semiotics with empirical methods, including content analysis, audience interviews, and questionnaire surveys, the research provides a multidimensional

understanding of how visual elements shape cognitive and affective responses within entertainment-based brand ecosystems.

The findings indicate that a cohesive and recognizable visual identity—comprising consistent color palettes, typographic codes, and character visual cues—significantly enhances audience recall and strengthens brand attachment. Specifically, the Hulk’s iconic green tone and muscular imagery act as high-frequency semiotic markers that anchor audience perception, facilitating cross-platform transmission and co-creation within fan communities. Moreover, the empirical results verify that the clarity and consistency of visual design positively correlate with the perceived trustworthiness and distinctiveness of the brand, reaffirming the strategic value of visual design management in transmedia storytelling.

From a theoretical perspective, this research extends the application of visual communication theories to entertainment branding and provides a practical model for analyzing the relationship between visual identity, symbolic meaning, and consumer cognition. From a managerial standpoint, the study highlights how systematic visual communication can enhance brand equity, optimize content dissemination, and sustain user engagement in the attention economy era. Future research may further expand this framework by examining comparative cases across different cultural markets or testing the mediating effects of digital media environments on visual perception and brand cognition.

In summary, this study underscores that the visual identity system is not merely an aesthetic component but a strategic asset that drives audience recognition, emotional connection, and brand value creation within contemporary media industries.

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