Brand Diversity and Brand Similarity Impacts on Brand Evaluations

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This research examined the joint impact of brand diversity and brand similarity upon brand evaluations. The results revealed that low-diversity brands are favored over high-diversity brands, whereas high-similarity brands are favored over low-similarity brands. High-diversity narrow brands are favored over high-diversity broad brands, whereas low-diversity narrow and broad brands are favored identically. Additionally, low-diversity narrow brands are favored over high-diversity narrow brands, whereas low-diversity broad brands are favored over high-diversity broad brands. The findings of extant research that narrow brands are preferred over broad brands are true only when the quality diversities of both brands are high.

Keywords: brand diversity, brand evaluation, brand similarity, broad brand, narrow brand

INTRODUCTION

Extant brand research has documented the impact of brand similarity on brand evaluations. Product portfolios of brands with similar categories (or narrow brands) are more favorably evaluated than those with dissimilar categories (or broad brands) (Chang, 2020; Kim and Wingate, 2017). Additionally, broad brands with early (vs. late) introduction of dissimilar extensions are more favorably evaluated (Parker et al., 2018). Experiments have normally presumed that product portfolios are of similar and good quality; however, the quality levels of product portfolios can be inconsistent. For example, between 2007 and 2023, Apple launched 35 iPhone models ranging from the original iPhone to the latest iPhone 15. However, the quality of these iPhone models fluctuated markedly, particularly between the best quality model, the iPhone 5 in 2012, and the worst quality model, the iPhone 5C in 2013 (Hayward, 2023). Other than brand similarity, it is unknown if consumers evaluate product portfolios with various levels of quality (quality-variance) differently. If the impact of quality-variance on brand evaluations exists, narrow or broad brands with various quality-variances are likely to be evaluated differently. Thus, the findings of the extant research will be conditional.

Social cognition research has depicted that, in addition to group similarity, group perceptions (e.g., groupness) depend on the richness and variety of traits of group members (i.e., group diversity) (Goethals et al., 1979; Horwitz and Horwitz, 2007; Hulsheger et al., 2009; Joshi and Roh, 2009; Kende and McGarty, 2019; Linville et al., 1989; Love, 2018; McGarty, 2004; McGarty et al., 1995). As with social groups, brand perceptions are likely to be affected by quality diversity in addition to brand similarity. Therefore, this research advances brand research scopes by examining the impact of brand diversity, jointly with brand similarity, upon brand evaluations. This research proposes that both brand diversity and brand similarity moderate brand evaluations. Using a well-tuned experimental study, this research demonstrates that high-

diversity narrow brands are favored over high-diversity broad brands, whereas low-diversity narrow and broad brands are favored identically. Additionally, low-diversity broad brands are favored over high-diversity narrow brands. The research findings suggested that the findings of extant research that narrow brands are preferred over broad brands are true only when the quality diversities of both narrow and broad brands are high.

CONCEPTUAL BACKGROUND

Group Similarity and Group Perceptions

Group perception research has investigated the moderating effects of group structures (e.g., similarity) on group impression formation (Crawford et al., 2002; Danbold and Unzueta, 2020). Similarity denotes the demographic commonality of group members and moderates the information integration of the group members and the subsequent impression formation of the group (Crawford et al., 2002; Lickel et al., 2000; Spencer-Rodgers et al., 2007). The moderation of group similarity on group perceptions is predetermined by the perceivers' expectations concerning the existence of the underlying essence of the groups (Crawford et al., 2002). The perceivers' process information about high-similarity groups more thoroughly than information about low-similarity groups (Crawford et al., 2002; Spencer-Rodgers et al., 2007). As a result, the impact of new information about group individuals is more pronounced for high-similarity groups then for low-similarity groups (Crawford et al., 2002; Hamilton and Sherman, 1996; Sherman et al., 1999; Susskind et al., 1999).

Group Diversity and Group Perceptions

In addition to group similarity, extant research on group perceptions has investigated the impact of group diversity on group perceptions (Goethals et al., 1979; Horwitz and Horwitz, 2007; Hulsheger et al., 2009; Joshi and Roh, 2009; Kende and McGarty, 2019; Linville et al., 1989; Love, 2018; McGarty, 2004; McGarty et al., 1995). Group diversity is operationalized as the number of discrete positions in a group (McGarty, 2004; McGarty et al., 1995). By comparison, group similarity specifies the resemblance of observable appearances, whereas group diversity highlights the variance in personal traits. While both group diversity and group similarity are moderators of group perceptions, the influence of group diversity on group perceptions contrasts that of group similarity. Groupness increases when group similarity increases, while groupness decreases when group diversity increases (Goethals et al., 1979; Linville et al., 1989; McGarty, 2004; McGarty et al., 1995). The perceivers' process information about low-diversity groups more thoroughly than information about high-diversity groups (Crawford et al., 2002; Spencer-Rodgers et al., 2007). As a result, the impact of new information about group individuals is more impactful on low-diversity groups then on high-diversity groups (Crawford et al., 2002; Hamilton and Sherman, 1996; Sherman et al., 1999; Susskind et al., 1999).

Negativity Biases of Group Diversity

In categorization judgments, negative and extreme information is more diagnostic on the categorization of social groups and induces negativity and extremity biases (Johnston and Madson, 2022; Sherif and Sherif, 1967; Skowronski and Carlston, 1986;). As people generally perceived the world as a moderately positive place in general, the perceived probability is that people will act positively (Skowronski and Carlston, 1986). This moderately positive perception serves as a perceptual anchor for the judgments of categorization. Negative (vs. positive) behaviors, therefore, are comparatively far away from the normative positive midpoint of the perceptual anchor and perceived as extreme behaviors. The negative (vs. positive) behaviors are weighed greater when they are averaged into the categorization judgments and, therefore, induce negativity biases. Based on the categorization judgment theory, moderately positive perception about the variance of quality serves as a perceptual anchor for brand evaluations. Product portfolios of existing brands are expected to be generally consistent in quality (or moderately low in quality diversity). As such, low-diversity information is expected and will lightly enhance brand quality, whereas high-diversity information is unexpected and will largely weaken brand quality (i.e., negativity biases).

Impacts of Brand Diversity and Brand Similarity on Brand Evaluations

Main Effects of Diversity and Similarity Information

As with group perception, both brand diversity (McGarty, 2004; McGarty et al., 1995) and brand similarity (Crawford et al., 2002; Lickel et al., 2000; Spencer-Rodgers et al., 2007) will moderate brand evaluations. Coupled with the categorization judgment theory (Johnston and Madson, 2022; Sherif and Sherif, 1967; Skowronski and Carlston, 1986), low-diversity information is positive information and will slightly enhance brand quality, whereas high-diversity information is extreme and negative information and will largely weaken brand quality. As a result, the perceived quality of low-diversity brands will be much higher than that of high-diversity brands. Additionally, high-similarity information is positive information and will enhance brand quality, whereas low-similarity information is negative information and will weaken brand quality (Chang, 2020; Kim and Wingate, 2017). As a result, the perceived quality of high-similarity brands will be higher than that of low-similarity brands. Therefore,

H1. *Low-diversity brands are favored over high-diversity brands.*

H2. *High-similarity brands are favored over low-similarity brands.*

Diversity Effects on Narrow and Broad Brands

For high-diversity narrow brands, the salient weakening of high-diversity information will surmount the moderate enhancement of high-similarity information on brand evaluations (Johnston and Madson, 2022; Sherif and Sherif, 1967; Skowronski and Carlston, 1986). As a result, high-diversity high similarity information will weaken the quality of high-diversity narrow brands. Contrarily, for high-diversity broad brands, both high-diversity and low-similarity information will weaken brand quality (Chang, 2020; Kim and Wingate, 2017; McGarty, 2004; McGarty et al., 1995). As a result, the quality of high-diversity broad brands will be largely weakened. Consequently, the perceived quality of high-diversity narrow brands will be higher than that of high-diversity broad brands, while the qualities of both brands will be weakened.

Additionally, for low-diversity narrow brands, both low-diversity and high-similarity information will lightly enhance brand quality (Johnston and Madson, 2022; Sherif and Sherif, 1967; Skowronski and Carlston, 1986). As a result, the quality of low-diversity narrow brands will be lightly enhanced. Contrarily, for low-diversity broad brands, the enhancement of low-diversity information will counterbalance the weakening of low-similarity information (Johnston and Madson, 2022; Sherif and Sherif, 1967; Skowronski and Carlston, 1986), which will lead to neutral low-diversity broad brands. As a result, the perceived quality of low-diversity narrow and broad brands will be similar. Therefore,

H3a. *High-diversity narrow brands are favored over high-diversity broad brands.*

H3b. *Low-diversity narrow and broad brands are identically favored.*

Similarity Effects on Low- and High-Diversity Brands

For high-diversity narrow brands, the weakening of high-diversity information will surmount the enhancement of high-similarity information (Johnston and Madson, 2022; Sherif and Sherif, 1967; Skowronski and Carlston, 1986). As a result, high-similarity high-diversity information will weaken the quality of high-diversity narrow brands. Contrarily, for low-diversity narrow brands, high-similarity and low-diversity information will moderately enhance brand quality (Chang, 2020; Kim and Wingate, 2017; McGarty, 2004; McGarty et al., 1995). As a result, the perceived quality of low-diversity narrow brands will be much higher than that of high-diversity narrow brands.

For high-diversity broad brands, both low-similarity and high-diversity information will weaken brand quality (Johnston and Madson, 2022; Sherif and Sherif, 1967; Skowronski and Carlston, 1986). As a result, the quality of high-diversity broad brands will be largely weakened. Contrarily, for low-diversity broad brands, the enhancement of low-diversity information will counterbalance the weakening of low-similarity information (Johnston and Madson, 2022; Sherif and Sherif, 1967; Skowronski and Carlston, 1986), which

will lead to neutral low-diversity broad brands. As a result, the perceived quality of low-diversity broad brands will be much higher than that of high-diversity broad brands. Therefore,

H4a. *Low-diversity narrow brands are favored over high-diversity narrow brands.*

H4b. *Low-diversity broad brands are favored over high-diversity broad brands.*

Interactions of Diversity and Similarity Effect

For low-diversity broad brands, the enhancement of low-diversity information will counterbalance the weakening of low-similarity information (Johnston and Madson, 2022; Sherif and Sherif, 1967; Skowronski and Carlston, 1986), which will lead to neutral low-diversity broad brands. For high-diversity narrow brands, the salient weakening of high-diversity information will surmount the moderate enhancement of high-similarity information on brand evaluations (Johnston and Madson, 2022; Sherif and Sherif, 1967; Skowronski and Carlston, 1986). As a result, high-diversity high-similarity information will weaken the quality of high-diversity narrow brands. Therefore,

H5a. *Low-diversity broad brands are favored over high-diversity narrow brands.*

Additionally, for low-diversity narrow brands, both low-diversity and high-similarity information will lightly enhance brand quality (Johnston and Madson, 2022; Sherif and Sherif, 1967; Skowronski and Carlston, 1986). As a result, the quality of low-diversity narrow brands will be lightly enhanced. For high-diversity broad brands, both low-similarity and high-diversity information will weaken brand quality (Johnston and Madson, 2022; Sherif and Sherif, 1967; Skowronski and Carlston, 1986). As a result, the quality of high-diversity broad brands will be largely weakened. Therefore,

H5b. *Low-diversity narrow brands are favored over high-diversity broad brands.*

METHODOLOGY

In line with previous research (Loken and John, 1993), two fictitious brands (X and Y brands) were crafted using *Consumer Reports'* statements representing high- and low-similarity brands (narrow and broad brands), respectively. The brand statements for these two brands consisted of two elements to capture the effect of the brand structure on the quality of the parent brands. The first element was a generic brand (G brand) statement describing the composition and quality of the X and Y brands (e.g., "one of the 100 Best Global Brands," "received an average four-star rating on the five-star quality rating scale of Consumer Reports"). The generic statements for these two brands were identical. The second element of the brand statements was a list of product portfolio. Specifically, the seven products of the X brand were in similar categories of dental care products, such as toothpastes, toothbrushes, and flosses. Conversely, the seven products of the Y brand were in dissimilar categories: toothpastes, facial tissues, light bulbs, LED monitors, alkaline batteries, smartphones, and DVD players. Both brands originated from the same first brand of classic toothpastes, but were leveraged in different directions.

The quality diversity of the product portfolios was manipulated through the discrete quality of the products, specifically, the number of discrete quality ratings (McGarty et al., 1995). Both the high- and low-diversity X and Y brands consisted of the same number of seven products and same average rating of four stars. However, the high-diversity brands were comprised of a variety of two-, three-, and five-star ratings (M = 4, diversity = 3), whereas the low-diversity brands consisted of only four-star ratings (M = 4, diversity = 1). The brand quality was measured using three nine-point semantic differential attitude scales with endpoints labeled "low quality"/ "high quality," "unfavorable"/ "favorable," and "undesirable"/ "desirable" (Keller and Aaker, 1992; Kempf and Smith, 1998). Consistent with previous research (Crawford et al., 2002), brand similarity was investigated using a nine-point Likert scale with the statement: "the product categories of these seven products are similar to each other." Brand diversity was measured

using a nine-point Likert scale with the statement: "the quality of these products is diverse" (McGarty et al., 1995). The participants were asked to indicate their opinions about the brands by selecting corresponding numbers on the scales. The brand quality index was formulated by averaging the values for these three attitude scales ($\alpha_s \geq .91$).

Overall, 332 U.S. residents (M_{age} = 36.97, *SD* = 13.26, 178 females, 154 males) participated in the 2 (brand similarity: high vs. low) × 2 (brand diversity: high vs. low) between-subjects experimental design. The data were collected online. The participants began their participation by rating the quality of the X or Y brand based on the first part of the brand statement (G brand), followed by evaluating the similarity and diversity of the seven products and the quality of the X or Y brand. The effect of the brand structure on the quality of the parent brand was captured by contrasting the quality of the parent brand information without the G brand and with the X or Y brand on the list and quality of the product portfolios.

ANALYSIS AND RESULTS

Manipulation Checks

Manipulations revealed that the participants in the four experimental groups perceived the G brand identically (*M*s = 7.46, 7.57, 7.61, and 7.55, $F(3, 328) = .37$, $p > .05$). Additionally, they perceived both the high-diversity X and Y brands and both the low-diversity X and Y brands as high- and low-diversity brands, respectively (*M*s = 6.84 and 1.33, $F(1, 330) = 3911.62$, $p < .001$) and the (high- and low-diversity) X and Y brands as high- and low-similarity brands, respectively (*M*s = 7.18 and 2.23, $F(1, 330) = 918.11$, $p < .001$). Therefore, the independent variables of the original brand (i.e., G brand) quality, diversity, and similarity were properly manipulated and yielded no conditional effects.

Test of Hypotheses

Hypotheses 1 and 2 stated that low-diversity brands are favored over high-diversity brands (H1), whereas high-similarity brands are favored over low-similarity brands (H2). A two-way ANOVA on the quality changes of the G brand yielded the main effects of brand diversity (*MD*s = -1.43 and .07, $F(1, 328) = 174.80$, $p < .001$) and brand similarity (MD_S = .85 and -.48, $F(1, 328) = 9.94$, $p < .001$) and an interaction between brand diversity and brand similarity (MD_S = -1.06, .12, -1.79, and .03, $F(1, 328) = 13.02$, $p < .01$; Table 1). The results indicated that both brand similarity and brand diversity information moderated brand evaluations. Particularly, the low-diversity information enhanced the G brand, whereas the high-diversity information weakened the G brand (*MD*s = .07 and -1.43, $F(1, 328) = 174.80$, $p < .001$; H1). The results suggested that low-diversity brands are favored over high-diversity brands (H1). Additionally, the high-similarity information enhanced the G brand, whereas the low-similarity information weakened the G brand. The results suggested that high-similarity brands are favored over low-similarity brands (H2). As a result, Hypotheses 1 and 2 were confirmed. Moreover, the F value of the main effect of brand diversity was much greater than that of brand similarity (174.80 vs. 9.94), which suggests that brand diversity is more impactful than brand similarity on brand evaluations.

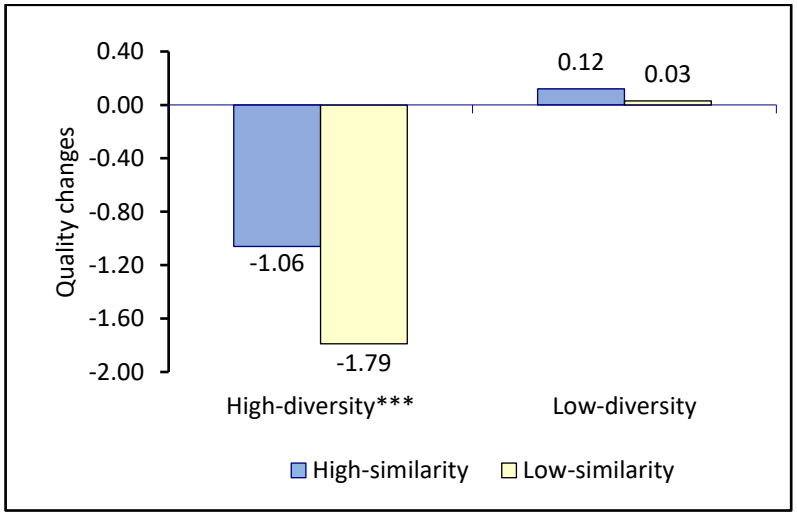
TABLE 1
THE IMPACTS OF BRAND DIVERSITY AND BRAND SIMILARITY ON BRAND QUALITY

Brands	Quality (SD)				Diversity (SD)	Similarity (SD)
	Prior	Posterior	Difference	T-Value		
High diversity, narrow (n = 81)	7.57 (.79)	6.51 (.85)	-1.06 (.95)	-9.99***	6.81 (.65)	6.95 (1.85)
Low diversity, narrow (n = 79)	7.46 (1.09)	7.58 (1.16)	0.12 (.85)	1.29	1.33 (.97)	7.41 (1.45)
High diversity, broad (n = 83)	7.55 (.94)	5.77 (1.12)	-1.79 (1.24)	-13.11***	6.87 (.95)	2.24 (1.20)
Low diversity, broad (n = 89)	7.61 (.91)	7.64 (.90)	0.03 (.68)	0.41	1.33 (.60)	2.22 (1.37)

***: p < .001

Hypotheses 3a and 3b stated that high-diversity narrow brands are favored over high-diversity broad brands (H3a), whereas low-diversity narrow and broad brands are identically favored (H3b). Simple-effects tests on brand diversity were performed to probe the interactions of brand diversity and brand similarity on the quality changes of the G brand. For high-diversity brands, the high-diversity and low-similarity information more saliently weakened the G brand than did the high-diversity and high-similarity information (*MD*s = -1.79 and -1.06, $F(1, 328) = 22.40$, $p < .001$; Figure 1). The results suggested that high-diversity narrow brands are favored over high-diversity broad brands (H3a). Contrarily, for low-diversity brands, the low-diversity high-similarity information and low-diversity low-similarity information identically enhanced the G brand (*MD*s = .12 and .03, $F(1, 328) = .12$, $p > .10$; Figure 1). The results suggested that low-diversity narrow and broad brands are identically favored (H3b). As a result, Hypotheses 3a and 3b were confirmed.

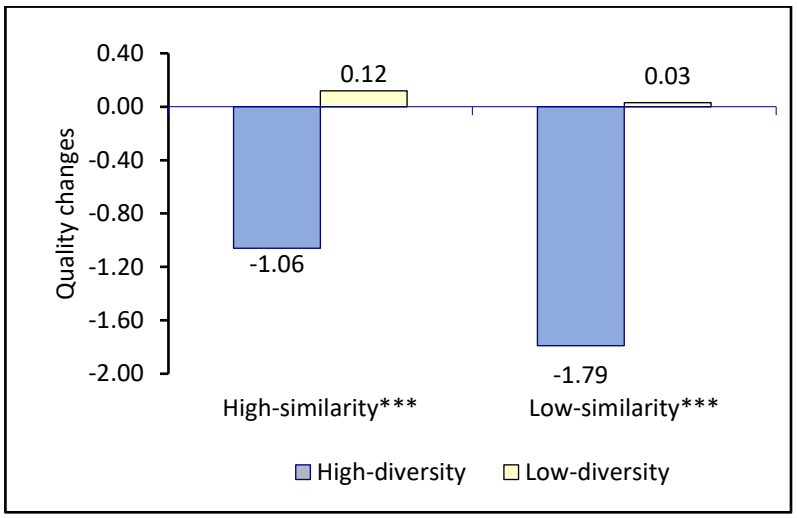
FIGURE 1
TESTS OF HYPOTHESES 3A AND 3B



Hypotheses 4a and 4b stated that low-diversity narrow brands are favored over high-diversity narrow brands (H4a), whereas low-diversity broad brands are favored over high-diversity broad brands (H4b). Simple-effects tests on brand similarity revealed that, for narrow brands, the high-similarity high-diversity information weakened the G brand, whereas the high-similarity low-diversity information enhanced the G brand (*MD*s = -1.06 and .12, $F(1, 328) = 44.61$, $p < .001$; Figure 2). The results suggested that low-diversity

narrow brands are favored over high-diversity narrow brands (H4a). Additionally, for broad brands, the low-similarity high-diversity information weakened the G brand, whereas the low-similarity low-diversity information slightly enhanced the G brand (*MD*s = -1.79 and .03, $F(1, 328) = 146.85$, $p < .001$; Figure 2). The results suggested that low-diversity broad brands are favored over high-diversity broad brands (H4b). As a result, Hypotheses 4a and 4b were confirmed.

FIGURE 2
TESTS OF HYPOTHESES 4A AND 4B



Hypotheses 5a and 5b stated that low-diversity broad brands are favored over high-diversity narrow brands, whereas low-diversity narrow brands are favored over high-diversity broad brands. A one-way ANOVA on quality change revealed that the four combinations of diversity and similarity information yielded unparallel influences on the G brand (*M*s = .12, -1.05, .03, and -1.78, $F(3, 328) = 77.11$, $p < .001$). Further, post-hoc tests revealed that low-diversity low-similarity information slightly enhanced the G brand, whereas high-diversity high-similarity information largely weakened the G brand (*M*s = .03 and -1.06, *MD* = 1.09, $p < .001$). The results suggested that low-diversity broad brands are favored over high-diversity narrow brands. As a result, Hypothesis 5a (H5a) was confirmed. Additionally, low-diversity high-similarity information enhanced the G brand, whereas high-diversity low-similarity information largely weakened the G brand (*M*s = .12 and -1.79, *MD* = 1.91, $p < .001$). The results suggested that low-diversity narrow brands are favored over high-diversity broad brands. As a result, Hypothesis 5b (H5b) was confirmed.

DISCUSSION

The results revealed that both brand diversity and brand similarity moderated brand evaluations. Low-diversity brands are favored over high-diversity brands. Contrarily, high-similarity brands are favored over low-similarity brands. Interaction effects of brand diversity and brand similarity on brand evaluations were also observed. High-diversity narrow brands are favored over high-diversity broad brands. Contrarily, low-diversity narrow and broad brands are identically favored. Low-diversity narrow brands are favored over high-diversity narrow brands, whereas low-diversity broad brands are favored over high-diversity broad brands. Additionally, low-diversity broad brands are favored over high-diversity narrow brands, whereas low-diversity narrow brands are favored over high-diversity broad brands. By comparison, the impact of brand diversity on brand evaluations is more pronounced than that of brand similarity. The research findings advance the results of prior research regarding brand perceptions that narrow brands are preferred over broad brands (Chang, 2020; Kim and Wingate, 2017), which is applicable only when the brand diversity is high. When brand diversity is low, narrow and broad brands are favored identically. Additionally, broad

brands may be favored over narrow brands when the broad brands are low in diversity and the narrow brands are high in diversity. Previous research depicted that broad brands are perceived as being more capable of leveraging brand extensions (Dacin and Smith, 1994), and broad brands with early (vs. late) introduction of dissimilar extensions are more favorably evaluated (Parker et al., 2018). Based on the findings of this study, the findings of the extant research may be true depending on the extent of the brand diversity. The findings of this study may also influence the findings of extant research in the reciprocal effect between parent brands (or product portfolios) and extension brands. None of the extant research has ever included brand diversity to examine the reciprocal effects, and the findings of the extant research are also likely to be conditional.

Implications

This study utilized group perception theories (Brewer and Harasty, 1996; Crawford et al., 2002; Hamilton and Sherman, 1996; Hilton and von Hippel, 1990; McGarty, 2004; McGarty et al., 1995; Sherman et al., 1999) to verify the hypotheses of the impacts of brand diversity and brand similarity on brand evaluations. The results inferred that the psychological mechanism of group perceptions is generalizable to consumers' brand perceptions. Additionally, the research findings confirm that, based on the categorization judgment theories (Johnston and Madson, 2022; Sherif and Sherif, 1967; Skowronski and Carlston, 1986), a moderately positive perception about the variance of quality serves as a perceptual anchor for brand evaluations. Product portfolios of existing brands are expected to be generally consistent in quality and at least moderately low in quality diversity. As a result, low-diversity information slightly enhances brand quality, whereas high-diversity information largely weakens brand quality (i.e., negativity and extremity biases). By comparison, positive information about similarity (i.e., high-similarity) yielded slightly higher enhancement effects on brands than did positive information about diversity (i.e., low-diversity), whereas negative information about similarity (i.e., low-similarity) yielded lower weakening effects on brands than did negative information about diversity (i.e., high-diversity). The results infer that a slightly positive perception about the variance of category similarity serves as a perceptual anchor for brand evaluations. Product portfolios of existing brands are expected to be slightly positive in category similarity. In conclusion, moderately positive and slightly positive perceptions about brands serve as perceptual anchors for the quality diversity and category similarity of brands, respectively.

For managerial implications, it was believed that the leveraging of narrow (high-similarity) brands was a better choice for brand managers because narrow brands are favored over broad brands, and similar extensions of narrow brands are relatively easier to be produced than dissimilar extensions of broad (low-similarity) brands. However, this belief is conditionally true when both the diversities of narrow and broad brands are high. Narrow brands do not entertain the advantage when both the diversities of narrow and broad brands are low and when the diversities of narrow and broad brands are high and low, respectively. Specifically, low-diversity narrow and broad brands are identically favored, whereas low-diversity broad brands are favored over high-diversity narrow brands. Out of the four conditions in this study, narrow brands were favored over broad brands in two conditions, whereas broad brands were favored over narrow brands in one condition. This result suggests that, when both brand diversity and brand similarity are considered, the advantage of leveraging narrow brands is just slightly better than that of leveraging broad brands.

Limitations and Future Research

Extant brand research has discussed the impact of brand characteristics on parent brand evaluations and reciprocal effects between parent and extended brands. This study specified the impact of brand diversity on parent brand evaluations. Future research may be conducted to examine the impact of brand diversity on the reciprocal effects between parent and extended brands. Based on the findings of this study, the findings of the extant research are likely to be conditional when brand diversity is considered.

REFERENCES

Chang, J.W. (2020). The asymmetric patterns of adverse extension effects on narrow and broad brands: Perspectives on brand structure and extension typicality. *Journal of Product and Brand Management*, *29*(7), 985–997.

Crawford, M.T., Sherman, S.J., & Hamilton, D.L. (2002). Perceived entitativity, stereotype formation, and the interchangeability of group members. *Journal of Personality and Social Psychology*, *83*(5), 1076–1094.

Danbold, F., & Unzueta, M.M. (2020). Drawing the diversity line: Numerical thresholds of diversity vary by group status. *Journal of Personality and Social Psychology*, *118*(2), 283–306.

Goethals, G.R., Allison, S.J., & Frost, M. (1979). Perceptions of the magnitude and diversity of social support. *Journal of Experimental Social Psychology*, *15*(6), 570–581.

Hamilton, D.L., & Sherman, S.J. (1996). Perceiving persons and groups. *Psychological Review*, *103*(2), 336–355.

Hayward, A. (2023, November 1). *Every Apple iPhone ranked in order of greatness*. Stuff. Retrieved from https://www.stuff.tv/features/ranked-every-iphone-in-order-greatness

Horwitz, S.K., & Horwitz, I.B. (2007). The effects of team diversity on team outcomes: A meta-analytic review of team demography. *Journal of Management*, *33*(6), 987–1015.

Hulsheger, U.R., Anderson, N., & Salgado, J.F. (2009). Team-level predictors of innovation at work: A comprehensive meta-analysis spanning three decades of research. *Journal of Applied Psychology*, *94*(5), 1128–1145.

Johnston, C.D., & Madson, G.J. (2022). Negativity bias, personality and political ideology. *Nature Human Behaviour*, *6*(5), 666–676.

Joshi, A., & Roh, H. (2009). The role of context in work team diversity research: A meta-analytic review. *Academy of Management Journal*, *52*(3), 599–627.

Keller, K.L., & Aaker, D.A. (1992). The effects of sequential introduction of extensions. *Journal of Marketing Research*, *29*(1), 35–50.

Kempf, D.S., & Smith, R.E. (1998). Consumer processing of product trial and the influence of prior advertising: A structural modeling approach. *Journal of Marketing Research*, *35*(3), 325–338.

Kende, A., & McGarty, C. (2019). A model for predicting prejudice and stigma expression by understanding target perceptions: The effects of visibility, politicization, responsibility, and entitativity. *European Journal of Social Psychology*, *49*(5), 839–856.

Kim, Y., & Wingate, N. (2017). Narrow, powerful, and public: The influence of brand breadth in the luxury market. *Journal of Brand Management*, *24*(5), 453–466.

Lickel, B., Hamilton, D.L., Wieczorkowska, G., Lewis, A.C., Sherman, S.J., & Uhles, A.N. (2000). Varieties of groups and the perception of group entitativity. *Journal of Personality and Social Psychology*, *78*(2), 223–246.

Linville, P.W., Fischer, G.W., & Salovey, P. (1989). Perceived distributions of the characteristics of in-group and out-group members: Empirical evidence and a computer simulation. *Journal of Personality and Social Psychology*, *57*(2), 165–188.

Loken, B., & John, D.R. (1993). Diluting brand beliefs: When do extensions have a negative impact? *Journal of Marketing*, *57*(3), 71–84.

Love, L.R. (2018). Group cohesion: The effect of diversity. *Global Journal of Management and Marketing*, *2*(1), 77–86.

McGarty, C. (2004). Forming stereotypes of entitative groups. In V. Yzerbyt, C.M. Judd, & O. Corneille (Eds.), *The Psychology of Group Perception: Perceived Variability, Entitativity, and Essentialism* (pp. 161–178). New York, NY: Psychology Press.

McGarty, C., Haslam, S.A., Hutchinson, K.J., & Grace, D.M. (1995). Determinants of perceived consistency: The relationship between group entitativity and the meaningfulness of categories. *British Journal of Social Psychology*, *34*(3), 237–256.

Parker, J.R., Lehmann, D.R., Keller, K.L., & Schleicher, M.G. (2018). Building a multi-category brand: When should distant brand extensions be introduced? *Journal of the Academy of Marketing Science*, *46*(2), 300–316.

Sherif, M., & Sherif, C.W. (1967). Attitudes as the individual's own categories: The social judgment approach to attitude change. In C.W. Sherif, & M. Sherif (Eds.), *Attitude, Ego Involvement, and Change* (pp. 105–139). New York, NY: Wiley.

Sherman, S.J., Hamilton, D.L., & Lewis, A.C. (1999). Perceived entitativity and the social identity value of group membership. In D. Abrams, & M. Hogg (Eds.), *Social Identity and Social Cognition* (pp.80–110). Oxford, UK: Blackwell.

Skowronski, J.J., & Carlston, D.E. (1987). Social judgment and social memory: The role of cue diagnosticity in negativity, positivity, and extremity biases. *Journal of Personality and Social Psychology*, *52*(4), 689–699.

Spencer-Rodgers, J., Hamilton, D.L., & Sherman, S.J. (2007). The central role of entitativity in stereotypes of social categories and task groups. *Journal of Personality and Social Psychology*, *92*(3), 369–388.

Susskind, J., Maurer, K., Thakkar, V., Hamilton, D.L., & Sherman, J.W. (1999). Perceiving individuals and groups: Expectancies, dispositional inferences, and causal attributions. *Journal of Personality and Social Psychology*, *76*(2), 181–191.

Yzerbyt, Y., & Schadron, G. (1994). Stereotypes and social judgment. In R. Bourhis, & J.P. Leyens (Eds.), *Stereotypes, Discrimination, and Intergroup Relations* (pp. 127–160). Brussels, Belgium: Mardaga.