MAPPING MULTIPLE BRAND-CELEBRITY CONGRUENCE WITH OVERALS: AN EVIDENCE FOR THE MEANING TRANSFER MODEL

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Abstract: *This study aims to provide evidence for the meaning transfer model. In Turkey, five apparel retailer brands and five celebrities are evaluated with brand personality and credibility models, respectively via pick any scales. 305 respondents selected with a convenience sampling approach attend the study. In order to compare different types of entities (brands and celebrities) with nominal variables, OVERALS analysis is performed. Associations regarding brands and celebrities are treated as sets of variables in OVERALS analysis. Three out of five brand-celebrity pairs are found to be closely congruent. In the context of multiple brand-celebrity comparisons, this relativistic congruence provides evidence for the meaning transfer model. Moreover, several essential associations in the meaning transfer process (for celebrities sexy, big fan following, and non-controversial public image and for brands stable, responsible, and active) are revealed. Findings of the study and OVERALS analysis are expected to deepen the understanding of the meaning transfer model.*
Keywords: *Meaning transfer model, celebrity endorsement, OVERALS*

1. Introduction

Brands can benefit from the support of celebrities. Brands with low brand awareness may seek to take advantage of well-known celebrities. Besides, the positive associations that celebrities create in their fan base can be used to leverage the brand image. A careful selection of the appropriate celebrity for the brand can positively affect the purchase intention of customers and the effectiveness of the advertisement (Amos et al., 2008). The managers may consider several factors in selecting celebrities. Fit with the brand, target audience, image, cost, and trustworthiness are the most crucial celebrity endorser selection criteria (Erdogan et al., 2001).

Meaning transfer, source credibility, source attractiveness, and match-up hypothesis models have often been applied to explain celebrity endorsement theory. Briefly, the meaning transfer model (McCraken, 1989) proposes that positive aspects of a celebrity are expected to transfer to the brand. The source credibility model (Hovland & Weiss, 1951) suggests that celebrity credibility soundly influences the persuasiveness of the advertisement. The source

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attractiveness model assumes that celebrity attractiveness may influence advertisement effectiveness. Match-up (Mowen et al., 1979) model proposes a good congruency between the celebrity, the brand, and target audience resulting in better advertisement evaluation. Due to variability in product categories and brand images, the adequacy of these theories in explaining celebrity endorsement alone is debated (Schimmelpfennig & Hunt, 2020).

There has been no consensus among the recent celebrity endorsement studies (in Table 1) about congruency. Some studies have evaluated congruency in terms of personality and image, whereas others focus on overall fit. Besides, methods adopted in such studies to calculate congruency between entities vary. Euclidean distance approaches and several congruency indexes (Sirgy, 1982) appear to be trace-backable to image congruence studies. Recently applied principle component analysis seems to be an innovative approach to determine congruency.

Table 1. Congruency approaches adopted in previous studies

Study	Comparison	Focus of congruence	Congruency scale	Congruency method
Misra & Beatty (1990)	brand/celebrity	Overall fit	Semantic differential	Mean
Choi & Rifon (2012)	product/celebrity congruence	Overall fit	Semantic differential	Mean
Choi & Rifon (2012)	celebrity /ideal self	Image	Bipolar	Euclidean distance
Pradhan & Israel (2014)	brand/celebrity , celebrity/user, user/brand	Personality	Semantic differential	Euclidean distance
Malodia et al. (2017)	brand/celebrity	Personality	Likert	Congruency formula
Albert et al. (2017)	brand/celebrity, celebrity/user, user/brand	Personality	Likert	Third-order principal component analysis

In addition to the degree of congruency, the similarity between marketing entities has been depicted in perceptual maps created with multidimensional scaling techniques such as correspondence analysis. Perceptual maps have often shown similarities between the same type of entities (brands) based on a single construct, such as the brand image and personality. Perceptual maps allow multiple comparisons beyond pairwise comparisons between entities. This study adopts the perceptional mapping approach since multiple comparisons are aimed instead of pairwise comparisons. Moreover, this study is expected to be one of the earliest studies in which perception maps are applied to this topic.

This study aims to map the fit between celebrities and brands. A non-linear canonical correlations analysis approach integrates brand personality, source credibility, and source attractiveness models to provide evidence for the meaning transfer model in the context of multiple brand-celebrity congruencies. Previous studies compare brand and celebrity in terms of a single construct (such as personality, image) while assuming the construct works well for both entities. In this study, personality measures are used for brands, and source credibility and attractiveness measures are used for celebrities. Non-linear canonical correlations analysis allows discovering similarities between various sets of variables. Therefore, in this study, associations sought by marketers for brands and celebrities are used to evaluate the fit between entities. Moreover, by applying non-linear canonical correlations analysis, multiple brand-celebrity fits are obtained. As a result, allowing similarities to be based on different variable sets

and multiple comparisons among various entities, the non-linear canonical correlations approach in this study is anticipated to contribute to branding literature.

2. Brand personality

Although there is considerable evidence that branding has been practiced since the early Bronze Age, brand personality is a relatively recent phenomenon in marketing (Moore & Reid, 2008). The use of brand personality term trace backs nearly 70 years to 1950s advertisers and marketing practitioners (Azoulay & Kapferer, 2003). In academic literature, Aaker's (1997) seminal work defines brand personality as "the set of human characteristics associated with a brand" and conceptualizes five dimensions (sincerity, excitement, competence, sophistication, and ruggedness) of the brand personality construct. Although widely held by branding researchers, Aaker's (1997) definition has been criticized for being too loose and including intellectual abilities, gender and social class features which have been excluded from psychologists' personality construction (Azoulay & Kapferer, 2003). Another criticism regarding Aaker's (1997) brand identity construction is that it misses negative personality traits and is unsuitable for all cultures (Bosnjak et al., 2007).

Besides, Aaker's (1997) scale has been questioned regarding its applicability to all sorts of different branding contexts. Branding has been widely used on physical goods, services, retailers, distributors, online products, people, organizations, sports, arts, entertainment, geographic locations, ideas and causes (Keller, 2012). Brand personality constructs, therefore, have been investigated in various contexts. Touristic destinations (Murphy et al., 2007), countries (D'Astous & Boujbel, 2007), nations (Rojas-Méndez et al., 2013), political parties (Smith, 2009**),** universities (Rauschnabel et al., 2016), nonprofit organizations (Shehu et al., 2016), corporates (Keller & Richey, 2006), sports teams (Carlson et al., 2009), web sites (Okazaki, 2006), news media (Kim et al., 2010) have been subjects of brand personality studies. Such studies either modified Aaker's (1997) brand personality scale or developed more suitable scales for their research topic.

In order to rectify underlying deficiencies of Aaker's (1997) brand personality scale, Geuens et al. (2009) propose a new scale consisting of five subcontracts (responsibility, activity, aggressiveness, simplicity and emotionality) with 12 items. Items of this new scale appear to be compatible with the psychologist's view of personality. The scale has some negative items, such as simple and ordinary. Moreover, it has been validated across cultures (Matzler et al., 2016) and product categories.

The consequences of brand personality have been intriguing for branding researchers. Although the importance of brand personality construct varies across industries depending on several factors such as brand's life-cycle, product type (goods or service) (Eisend & Stokburger-Sauer, 2013) and consumer's attachment style (Swaminathan et al., 2009), marketers may benefit from monitoring and evaluating brand personality on a regular basis. Sub-constructs of brand personality have been shown to have a positive influence on consumer's product evaluations (Freling & Forbes 2005), brand trust (Sung & Kim, 2010), brand love (Roy et al., 2016), perceived quality (Das, 2014) and brand loyalty (Lin, 2010).

Brand personality have been used by marketers to differentiate their products from competitors since the late 1980s (Azoulay & Kapferer, 2003). Corporates use brand personality attributes in mission and vision statements to differentiate and position their identity (Ingenhoff & Fuhrer, 2010). In order to understand and evaluate the position of their brand relative to competitors in the consumer mindset, marketers employ perceptual mapping techniques such as factor analysis, discriminant analysis and multidimensional scaling (Kohli & Leuthesser,

1993). Brand personality scales have been used to develop such perceptual maps (Bao & Sweeney, 2009; Opoku, 2009; James et al., 2006; Papania et al. 2008; Mishra & Mohanty, 2013; Campbell, 2010; Vinsentin et al., 2013).

3. Four models of celebrity endorsement

In order to develop and strengthen brand knowledge, marketers have used the support of other entities such as celebrities, places and events (Keller, 2012). It is anticipated that the positive qualities of the entity will be transferred to the brands. This meaning transfer process could be traced back to McCraken's (1986) study on the cultural meaning movement of consumer goods. According to this perspective, cultural meaning transfers to consumer goods via advertising and fashion. Then, goods convey meaning to consumers via rituals such as exchange and possession.

McCraken (1989) further elaborates this view in celebrity endorsement and provides an alternative explanation to the endorsement process. McCraken (1989)'s meaning transfer model proposes that meaning moves from celebrity to consumer in three steps. In the first step, celebrities could gain meanings from their personalities and lifestyles. Moreover, career events such as performed roles in movies and successes in sports could form meanings regarding celebrity. In the next step, desired meanings are transferred from celebrity to product via advertisement design. In the final stage, consumers construct themself by consuming products and meanings associated with products. Meanings, however, are abstract concepts and have been interpreted differently in various studies. For instance, Ambroise et al. (2014) focus on personality as meanings transferred from celebrity to brand. Endorser personality traits have been found to transfer to brand personality traits, while this influence is greater for less-known brands than well-known brands (Ambroise et al., 2014). In addition to personality, meanings regarding credibility, physical appearance, feelings, performance, and values of an endorser might be transferred to the brand (Jain & Roy, 2016; Roy & Jain, 2017). This study assumes that similarity between celebrity and brand is anticipated due to the meaning transfer process.

The source attractiveness model primarily posits that the physical attractiveness of an endorser could influence advertising effectiveness. Indeed, brands have made endorsement contracts with attractive models, actors, and actresses (Schimmelpfennig, 2018). Moreover, several studies (Seiler & Kucza, 2017; Yuan, 2015; Chekima et al., 2020) have supported the source attractiveness model.

In addition to the attractiveness of an endorser, the source credibility model considers trustworthiness and expertise. Source credibility could be defined as "communicator's positive characteristics that affect the receiver's acceptance of a message" (Ohanian, 1990, p.41). The source credibility model asserts that the more credible the endorser is, the better persuasion takes place. The effect of source credibility on persuasion has been supported by several studies (Pornpitakpan, 2004).

In some cases, the source credibility and attractiveness models are insufficient to explain successful advertisement campaigns (McCraken, 1989). According to proponents of the match-up hypothesis, as well as endorser's attractiveness and credibility, a good fit between endorser and brand should be taken into account. Credibility, attractiveness, image, and overall correspondence have been used to test the match-up hypothesis (Schimmelpfennig & Hunt, 2020). Matching a brand with a congruent celebrity increases brand recall, affect toward the brand, transfer of effect from the celebrity (Misra & Beatty, 1990). Consumer attitudes towards product and endorsement effectiveness are also found to be positively influenced by brand-celebrity congruence (Pradhan & Israel, 2004). Indeed, celebrity and brand fit have been among

the most important criteria companies utilize for the celebrity endorsement selection process (Erdogan et al., 2001).

4. Methodology

4.1. Sample and data collection

In order to reach the objectives of the study, data regarding five leading (İş Yatırım, 2017) brand-celebrity pairs are gathered. Since not all brands use celebrity endorsers, only brands collaborating with celebrities are included in the research. While brand 3 is the market leader with a 15.4% market share, the weakest brand 5 is an apparel retailer with less than 2% market share in Turkey. In Table 2, some properties of investigated celebrities and brands are given.

Table 2. Descriptive statistics about brands and celebrities

	Celebrity 1	**Celebrity 2**	**Celebrity 3**	**Celebrity 4**	**Celebrity 5**
Occupation	Actress	Actress	Actress	Model and actor	Singer and actor
Age	37	30	31	38	41
Length of collaboration	about a year	less than 6 months	between 6 months and a year	more than 3 years	less than 6 months
	Brand 1	**Brand 2**	**Brand 3**	**Brand 4**	**Brand 5**
Main areas of activity	Apparel Retailer	Apparel Retailer	Apparel Retailer	Apparel retailer mainly jeans	Apparel retailer for men
Year of Establishment	2003	1988	1988	1991	2000
Number of domestic stores	300	300	400	300	80

In this study, so as to reach as many respondents as possible, data is collected via an online questionnaire constructed in Google forms. The Survey link is shared in the Instagram and Facebook account of the researcher. Only respondents over 18 years-old are able to fill in the questionnaire. Therefore, a judgmental sampling procedure is used. At the end of the data collection period (March to April 2019), 305 participants attend the research. Participant profiles of the study are given in Table 3.

Table 3. Demographic characteristics of participants

Gender	Male	25.80%
	Female	74.20%
Age	18-24	77.14%
	25-34	14.65%
	35-55	8.21%
Level of education	High school or below	19.00%
	Undergraduate or college	71.20%
	Graduate or above	6.70%
Monthly income	Below one minimum wage	59.40%
	1-2 minimum wage	26.50%
	2-3 minimum wage	9.20%
	4 minimum wage or above	4.90%

4.2. Measures of the study

In the first part of the questionnaire, the consent of the participants is obtained. Then, the demographic characteristics of the respondents are asked. In the last part of the questionnaire, associations are measured.

Associations about brand personality are borrowed from an internationally valid brand personality scale developed by Geuens et al. (2009). Their scale consists of 12 items with five dimensions. Celebrity associations are adopted from the celebrity endorsement scale proposed by Gupta et al. (2017). Seventeen items (attractive, classy, handsome/beautiful, elegant, sexy, likeable, style icon, role model, credible, honest, reliable, trustworthy, dependable, convincing, big fan following, good performance track record, non-controversial public image) of celebrity endorsement scale are picked for this study.

Although in their original state, both brand personality and celebrity endorsement scales are applied as seven-point Likert scale, in this study a pick any (free-choice) scale approach is adopted because it requires too many (145) association questions in the questionnaire for five brands and celebrities.

4.3. Data analysis

4.3.1. Correspondence analyses

In order to visualize positioning of brands and celebrities, firstly correspondence analyses are carried out. Data gathered via pick any scales are nominal, therefore correspondence analysis is used for perceptual mapping (Hair et al., 2014). In conducting correspondence analyses, Chi-square (distance measure) and symmetric normalization methods are applied due to reveal, how variables are related to each other.
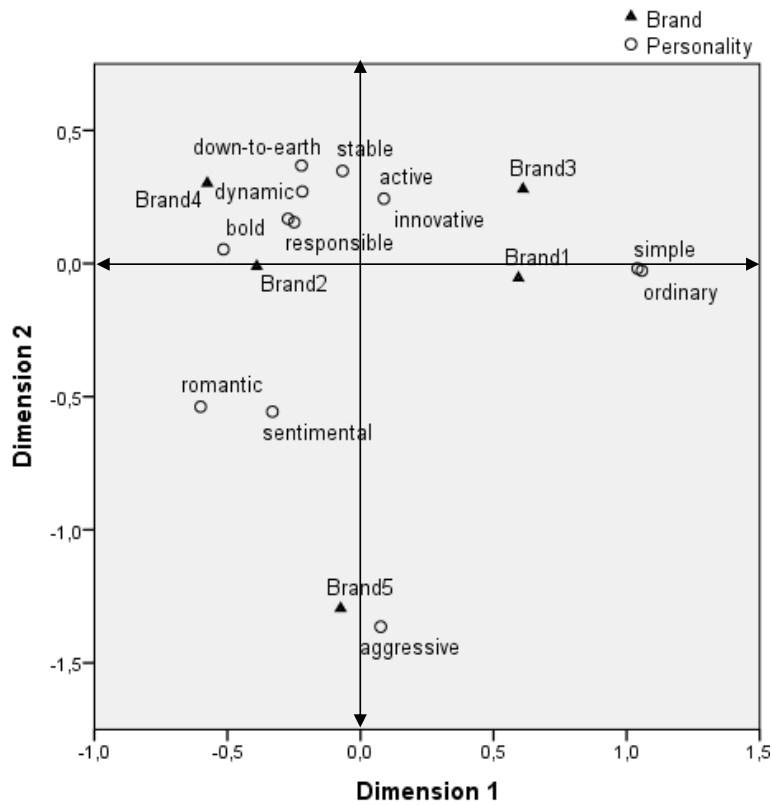
Figure 1. Brand perceptual map

Table A1 (in Appendix A) gives number of counts regarding personality associations across five brands. Brand2 has the highest number of associations in respondents' minds whereas Brand5 has the lowest. Correspondence analysis show that two dimensions accounts for 89.5% of the total inertia. Therefore, two-dimensional representation is used for perceptual mapping. Figure 1 illustrates perceptual map for five brands in terms of personality. Correspondence analysis reveals three brand clusters. Brand1 and Brand3 form cluster1. Brand2 and Brand4 are in cluster2. Brand5, however, is alone in the third cluster.

In Table A2 (in Appendix A), correspondence table for celebrities about their credibility is given. The highest number of association is obtained for Celebrity1. On the other hand, Celebrity3 is shown the least credible. Results of correspondence analysis show that two-dimensional representation is moderately explains (80.5%) the total inertia. Consequently, perceptual map with two dimensions (Figure 2) is obtained. Correspondence analysis results indicate that, regarding credibility Celebrity 1 and Celebrity 3 are close to each other. Celebrity 2, Celebrity 4 and Celebrity 5 are scattered over the perceptual map.
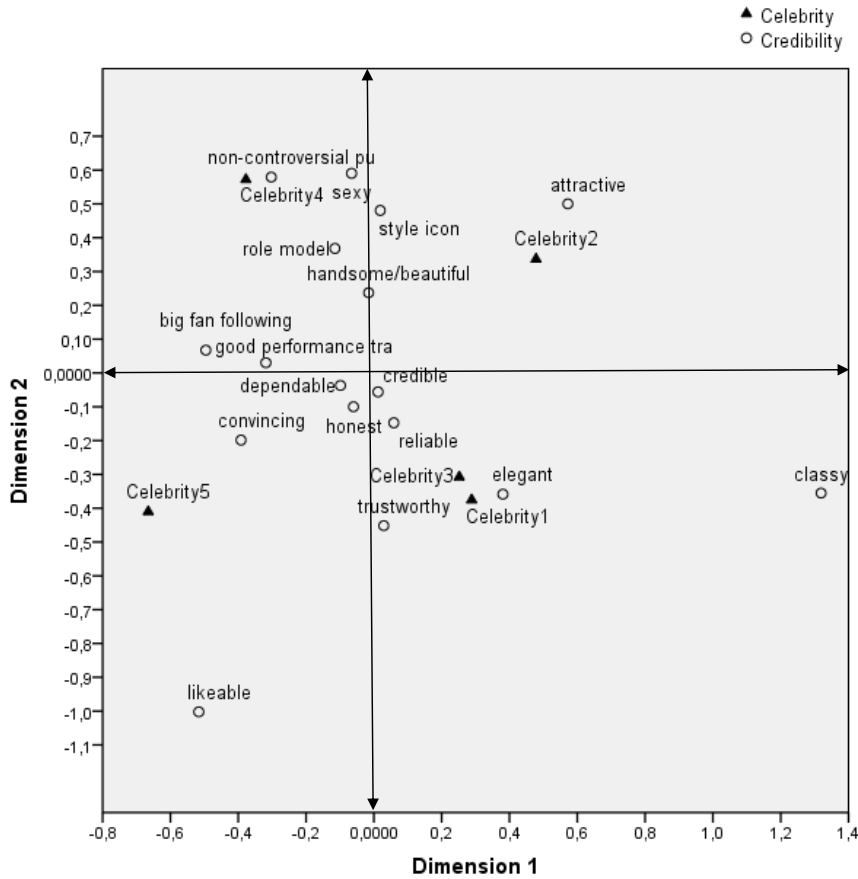
Figure 2. Celebrity perceptual map

4.3.2. Visualizing brand and celebrity congruency with OVERALS

Correspondence analysis can create maps for brands and celebrities separately because brands are evaluated in terms of personality, whereas; celebrities are assessed regarding their credibility. In order to develop a perceptual map illustrating two different entities simultaneously, a non-linear canonical correlation analysis is conducted. The OVERALS technique is used for non-linear canonical correlation analysis. The OVERALS technique is able to perform analysis on interval, ordinal, and nominal data. (Van der Burg et al., 1994). Since all of the variables in the study are of nominal type, it seems appropriate to apply the OVERALS technique.

OVERALS seeks to reveal the associations between sets of categorical variables by minimizing the total loss function of variable sets (Van der Burg et al., 1994). A compromise set is obtained after OVERALS. This synthetic set is called object scores. The similarity between sets can then be assessed with their degree of explanation of the object scores (IBM docs, 2022). In Figure 3., generated object scores by OVERALS for the dimension n and k sets of variables are illustrated. Squared multiple correlations ($Rn1^2$, $Rn2^2$,.... Rnk^2) of each set can be compared to evaluate the similarity between sets in nth dimension. OVERALS provides object scores and R^2 values for multiple dimensions. Therefore, comparison of set is available for more than one dimension. Multi-dimensional comparisons could be used to draw maps regarding association among sets.
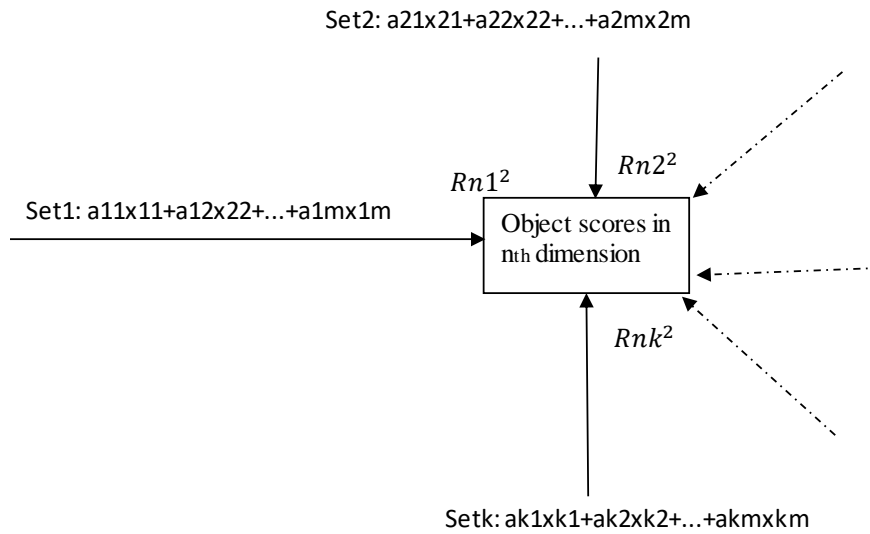
Set2: a21x21+a22x22+...+a2mx2m

Set1: a11x11+a12x22+...+a1mx1m

$Rn1^2$

$Rn2^2$

Object scores in nth dimension

Rnk^2

Setk: ak1xk1+ak2xk2+...+akmxkm

Figure 3. Object scores and linear combinations of variables in k sets

In this study, to explore the similarity between brands and celebrities, brands and celebrities are treated as sets of variables. To measure brand personality and celebrity credibility, pick any (free-choice) scales are used. Brand personality is measured with 17 items whereas celebrity credibility is measured with 12 items. In Table A3 and Table A4 (Appendix A), 145 variables and 10 sets are given. Where, variable Cij refers to ith celebrity's jth credibility item. Besides, variable Bij shows ith brand's jth personality item. All variables in the study are single nominal and have two categories (If a respondent picks C11=2, or else C11=1).

Association between sets can be evaluated by calculating squared multiple correlations (R^2) of linear combinations of variables in each set to predict the object scores in each dimension. OVERALS calculates loss values and R^2 values can be computed by the given formula (1) below (IBM docs, 2022):

$$R^2 = 1 - Loss \tag{1}$$

In Table 4, OVERALS analysis results of the study are given. As in the formula, loss values show how much variation in object scores cannot be explained by the linear combinations of variables in each set. For instance, the linear combination of variables in the Celebrity1 set explains 36% of variation of object scores in dimension 1 and 32% of variation in dimesion2. Conversely, 64% of variation in dimension 1 and 68% of the variation in dimension 2 cannot be explained by the linear combination of variables in Celebrity1. Mean values in Table 4 represent the average loss values of sets in each dimension. Eigenvalue of each dimension is calculated by 1 minus mean values. Fit is the total of Eigenvalues. The higher fit and eigenvalues, the better linear combination of variables of sets explain variation in object scores. In this study object scores appears to be weakly explained by ten sets of variables. In other words, OVERALS creates object scores in two dimensions with a low compromise between the ten sets of variables. This could stem from the inadequate number of (n=305) data and the high number of variables in the analysis.

Table 4. Summary of OVERALS

	Loss			R^2	
	Dimension			Dimension	
Sets	1	2	Sum	1	2
Celebrity1	0,64	0,68	1,31	0,36	0,32
Celebrity2	0,57	0,59	1,16	0,43	0,41
Celebrity3	0,52	0,59	1,11	0,48	0,41
Celebrity4	0,51	0,69	1,19	0,49	0,31
Celebrity5	0,61	0,64	1,24	0,39	0,36
Brand1	0,61	0,72	1,33	0,39	0,28
Brand2	0,71	0,82	1,53	0,29	0,18
Brand3	0,52	0,61	1,13	0,48	0,39
Brand4	0,52	0,71	1,23	0,48	0,29
Brand5	0,53	0,70	1,23	0,47	0,30
Mean	0,57	0,67	1,25		
Eigenvalue	0,43	0,33			
Fit			0,75		

In figure 4, by utilizing sets R^2 values in dimension 1 and dimension 2, similarity map is drawn. Results show three apparent brand-celebrity fit. Celebrity1-brand1, celebrity3-brand3, and celebrity4-brand4 pairs of variable sets are shown to be closely similar. Celebrities of brand1, brand3 and brand4 have a contract duration of more than six months with brands. On the other hand, brand2-celebrity2 and brand5-celebrity5 pairs show low fit. Celebrity2 and celebrity5 have worked with brand2 and brand5 for less than six months. Length of time seems to play a crucial role in meaning transfer between celebrity and brand. Overall, three out of five brand-celebrity matches provide evidence for the meaning transfer model.

Results also reveal some managerial insights regarding celebrity selection. In reality, brand5 works with celebrity5, it could also select celebrity4. Indeed, brand5 is an apparel retailer for men and celebrity5 is a famous actor. In case of termination of the contract with celebrity1 or to support the brand with more than one celebrity, an alternative celebrity option for brand1 seems to be celebrity5. Brand 2 appears to be distinct from other brands and celebrities. Managers of brand2 could seek a contract with new celebrities apart from the five celebrities of the study.
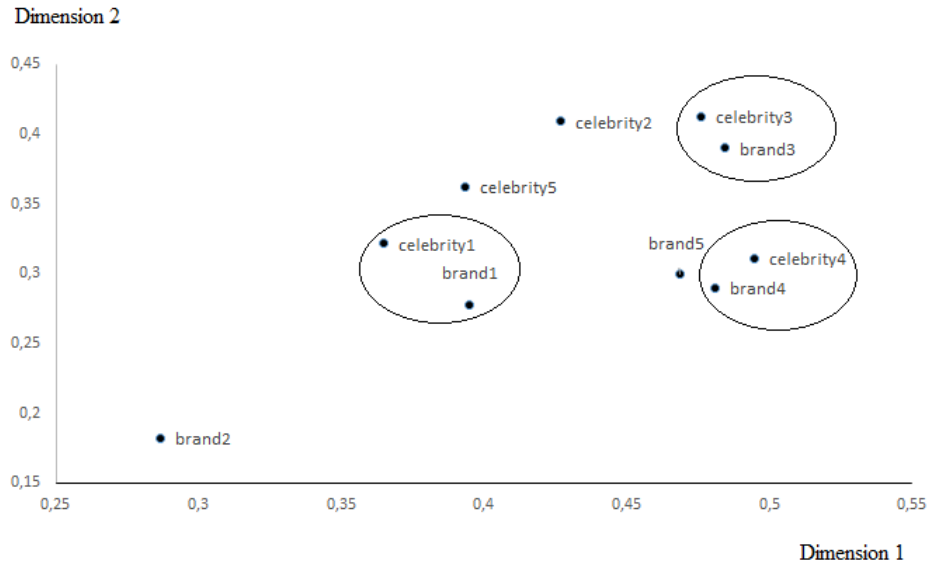
Figure 4. Brand-Celebrity congruence map

In order to uncover the role each variable plays in meaning transfer, non-linear canonical correlation analyses are also run for five brand-celebrity pairs. Component loadings can be used to interpret the importance of the variable for dimensions (Van der Burg et al., 1994). Distances from the origin in a component loadings graph show the importance of the variable (Hadjinicolaou et al., 2018). The 10 highest Euclidean distances calculated with component loadings for each pair of variable sets are given in Table 5. It is seen that the variables related to brands and celebrities play different roles in the meaning transfer across five pairs. However, for five brand-celebrity pairs in apparel retailing, three celebrity variables (sexy, big fan following, and non-controversial public image) and three brand-related variables (stable, responsible, and active) could be essential for the meaning transfer process. Those variables are given in bold in Table 5.

Table 5. Component loadings on two dimensions for five pairs

OVERALS for Sets														
Bra1-Cel1			Bra2-Cel2			Bra3-Cel3			Bra4-Cel4			Bra5-Cel5		
Fit	1,436		Fit	1,438		Fit	1,483		Fit	1,440		Fit	1,452	
Var	D1	D2	Var	D1	D2	Var	D1	D2	Var	D1	D2	Var	D1	D2
C115	0,73	-0,02	**B23**	-0,51	0,45	C33	0,75	-0,21	**B43**	0,63	-0,30	C51	0,56	-0,40
C116	0,49	-0,39	C211	-0,60	0,24	C36	0,46	0,50	C49	0,57	-0,35	**B55**	0,52	-0,42
B110	0,56	-0,12	C26	-0,53	-0,36	C312	0,50	0,39	C414	0,67	-0,05	C510	0,58	0,20
C117	0,52	-0,23	**C215**	-0,61	-0,13	C32	0,53	0,28	C412	0,58	0,32	C513	0,60	0,05
C113	0,48	-0,29	C27	-0,53	0,30	B36	0,57	0,13	**B42**	0,58	-0,28	C53	0,54	-0,26
C15	0,52	0,20	B28	-0,59	0,15	C31	0,56	-0,09	C47	-0,59	0,25	B510	0,42	0,41
B12	0,42	-0,34	B22	-0,59	-0,12	B312	0,54	0,06	C416	0,60	-0,21	**C55**	0,44	-0,38
B13	0,53	-0,07	**C25**	-0,51	-0,22	B38	0,53	-0,12	B41	0,56	-0,31	**C517**	0,57	0,11
B15	0,43	0,28	**B25**	-0,53	-0,11	B311	0,27	0,46	**C415**	0,63	0,06	B56	0,57	-0,04
C19	0,42	-0,27	B24	-0,44	0,33	C38	0,52	-0,10	**C417**	0,63	-0,06	C58	0,47	-0,29

Conclusion

The idea of developing and using human-like features for brands has been applied in marketing for many years. The concept of human personality, in particular, has attracted the attention of both marketing scholars and practitioners. In order to support brands, celebrities are often used by marketers. The match-up hypothesis, source attractiveness, source credibility, and the meaning transfer models have often been used to explain the celebrity endorsement process. This study integrates brand personality and celebrity endorsement models to provide evidence for the meaning transfer model.

In this study, in order to explore the meaning transfer model, multiple brand-celebrity comparisons are made. So as to measure a large number of variables for multiple entities, data is gathered via pick any (free-choice) scales. As a result, nominal variables are obtained. OVERALS technique, which is developed to examine the similarity between two or more variable sets, is suitable for analyzing nominal variables. By running OVERALS, similarities based on R^2 values are calculated for ten sets and a brand-celebrity congruence map is plotted with these values. Three out of five brand-celebrity pairs are shown to be in close proximity. Due to the meaning transfer process, congruence between three brands and celebrities has been developed. Therefore, this finding supports the meaning transfer model.

One of the striking results of this study reveals that the fit between the brand and the celebrity is relative. When compared one to one, it can be thought that there is a good fit between celebrity and brand. However, when competing brands and other celebrities are considered simultaneously, better celebrity options may emerge. Pairwise comparison approach seems to depict the celebrity-brand fit phenomenon inadequately.

Another contribution of the study is that it provides evidence that the meaning transfer between brand and celebrity develops over time. In this study, celebrity-brand pairs 2 and 5 have collaborated for less than six months. Results of the study show that this time length appears to be insufficient to develop meaning transfer between entities.

In addition, to understand the meaning transfer process, five OVERALS analyses are run for five brand-celebrity pairs. Sexy, big fan following, and non-controversial public image associations seem to play an important role in the meaning transfer model for celebrities. Moreover, for brands stable, responsible, and active associations are significant in the process.

From a methodological point of view, it is one of the earliest studies in which the OVERALS method is used to compare different entities. Similarities between entities evaluated with different scales can be compared with the OVERALS method proposed in this study.

In practice, brand-celebrity congruence map can be used as a managerial tool for making decisions regarding celebrities. This map can reveal celebrity alternatives suitable for brands and provide options for brand managers.

In this study OVERALS analysis is performed on ten sets of nominal variables. The total number of variables in the analysis is 145. On the other hand, a low sample size of 305 is obtained due to lack of financial resources. Therefore, OVERALS analysis conducted with a relatively low number of data gives rise to the study's weakness. Besides, data is gathered with a convenience sampling approach. As a result, findings of the study is limited to its sample and cannot be generalized to a population.

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Appendix A

Table A1. Correspondence table for brands

Personality item	Brand					
	Brand1	Brand2	Brand3	Brand4	Brand5	Active Margin
down-to-earth	70	108	69	108	17	372
stable	62	107	90	96	20	375
responsible	60	99	66	102	27	354
dynamic	66	123	77	103	22	391
active	91	126	112	105	28	462
innovative	73	129	70	110	27	409
aggressive	55	44	31	44	59	233
bold	51	103	50	115	32	351
ordinary	114	62	129	32	31	368
simple	122	69	118	25	27	361
romantic	34	112	27	57	37	267
sentimental	38	112	40	42	37	269
Active Margin	836	1194	879	939	364	4212

Table A2. Correspondence table for celebrities

Credibility	Celebrity					
	Celebrity1	Celebrity2	Celebrity3	Celebrity4	Celebrity5	Active Margin
attractive	88	137	31	81	40	377
classy	147	133	68	26	20	394
handsome/beautiful	112	124	55	130	87	508
elegant	125	95	71	65	66	422
sexy	57	106	28	99	62	352
likeable	124	64	41	44	154	427
style icon	80	120	26	105	69	400
role model	74	63	30	95	45	307
credible	106	49	44	91	45	335
honest	94	57	41	81	57	330
reliable	100	58	43	77	52	330
trustworthy	115	80	48	62	87	392
dependable	73	45	32	68	45	263
convincing	74	58	34	72	82	320
big fan following	87	80	58	130	110	465
good performance track record	104	73	59	126	90	452
non-controversial public image	59	82	32	115	62	350
Active Margin	1619	1424	741	1467	1173	6424

Table A3. Celebrity sets and variables

Celebrity sets					
Credibility items	Celebrity1	Celebrity2	Celebrity3	Celebrity4	Celebrity5
attractive	C11	C21	C31	C41	C51
classy	C12	C22	C32	C42	C52
handsome/beautiful	C13	C23	C33	C43	C53
elegant	C14	C24	C34	C44	C54
sexy	C15	C25	C35	C45	C55
likeable	C16	C26	C36	C46	C56
style icon	C17	C27	C37	C47	C57
role model	C18	C28	C38	C48	C58
credible	C19	C29	C39	C49	C59
honest	C110	C210	C310	C410	C510
reliable	C111	C211	C311	C411	C511
trustworthy	C112	C212	C312	C412	C512
dependable	C113	C213	C313	C413	C513
convincing	C114	C214	C314	C414	C514
big fan following	C115	C215	C315	C415	C515
good performance track record	C116	C216	C316	C416	C516
non-controversial public image	C117	C217	C317	C417	C517

Table A4. Brand sets and variables

Brand sets					
Personality items	Brand1	Brand2	Brand3	Brand4	Brand5
down-to-earth	B11	B21	B31	B41	B51
stable	B12	B22	B32	B42	B52
responsible	B13	B23	B33	B43	B53
dynamic	B14	B24	B34	B44	B54
active	B15	B25	B35	B45	B55
innovative	B16	B26	B36	B46	B56
aggressive	B17	B27	B37	B47	B57
bold	B18	B28	B38	B48	B58
ordinary	B19	B29	B39	B49	B59
simple	B110	B210	B310	B410	B510
romantic	B111	B211	B311	B411	B511
sentimental	B112	B212	B312	B412	B512