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# **Towards the Measurement of Consumer Trust in Media Brands - Scale Development and Validation**

**Media Brand Trust Scale Development**

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## 1. Introduction

Brand trust is of major importance to brands as repeatedly shown through its significant impact on factors such as brand equity (Delgado-Ballester & Luis Munuera-Alemán, 2005), brand loyalty (Atulkar, 2020; Chaudhuri & Holbrook, 2001), purchase intention (Chaudhuri & Holbrook, 2001; Dam, 2020), positive referrals (Becerra & Badrinarayanan, 2013) and has a positive impact on consumers' willingness to pay for (news) media (O'Brien, 2022). In combination with brand affect, brand trust also drives brand commitment. This effect also influences consumers' decision for or against a certain brand when facing competing offers from the same product category (Chaudhuri & Holbrook, 2002). According to Fritz et al. (2014), the understanding of brand trust also is of major significance for brands to be able to understand and improve customer-brand relationships and thus enhancing the success of suitable marketing activities. According to Chaudhuri & Holbrook (2001), it can be defined as consumers' "willingness to rely on the ability of the brand to perform its stated function".

Given this importance, research on brand trust and its measurement is abundant in the marketing, media and psychology literature (e.g. Gurviez & Korchia, 2003; Munuera-Aleman et al., 2003; Sung & Kim, 2010; von Mettenheim & Wiedmann, 2023). However, due to significant differences between brands in general and media brands specifically, the existing brand trust scales cannot simply be transferred to the media sector. While brands in general make use of media channels mostly to communicate their offer to consumers, media brands' core product is the production and provision of such content and channels (Malthouse & Calder, 2018; Ots & Hartmann, 2015).

Due to the halo effect and the connected trust transfer, media brand trust not only influences the media brand itself, but also advertising brands distributing their content in those environments (Enehasse & Sağlam, 2020; Liu-Thompkins, 2019). This impact of trust towards a brand on advertising performance can for example result in an increase of ad recall with higher levels of trust in a brand (Okazaki et al., 2007). Exploiting this halo effect to benefit from a transfer of trust from an environment to an advertising is especially relevant due to the low level of trust in advertising (Wu & Overton, 2020), possibly diminishing consumers' trust in a brand eventually (Snyder, 2011). Finally, a transfer of trust in media brands can be observed in connection to its impact on consumer's perception of social reality (Shrum, 2009). Due to this influence on consumer's perception of reality, media brand trust not only has an influence on the brand itself,

but also on society as a whole (Ariely, 2015; Chan-Olmsted & Kim, 2022). This impact of media trust on social trust as also described by (Moy & Scheufele, 2000) can eventually even be connected to economic growth overall (Bjørnskov, 2012). Media organizations eventually even benefit from audience trust, positively influencing their reputation in terms of improving investors' perception of the brand (OuYang et al., 2017).

Given this importance and "symbolic meaning" of trust in media brands, a scale to measure trust in media brands requires additional dimension when building on brand trust scales developed in the past (Chan-Olmsted & Kim, 2022). This special importance of trust in media was also supported by Strömbäck et al. (2020) who highlighted the relevance of trust in (news) media for consumers' decisions for and against certain media and their perception of information received by those. To fill this gap and to provide a measurement, this study is focused on the development and validation of a valid and reliable media brand trust scale.

## **2. Theoretical Background and Research Questions**

Building the foundation for research on the measurement of media brand trust, available publications focused on a broader perception of media and brands in general are relevant. Research such as presented by Kang & Hustvedt (2013), Mal et al. (2018), and Palmatier et al. (2006) determined a range of components (e.g. Transparency, Competence, Credibility) underlying trust in brands generally. Furthermore, studies such as those developed by Gurviez & Korchia (2003) and Munuera-Aleman et al. (2003) presented specific trust scales focused on brands in general, building the foundation for our research. However, those studies were conducted observing brands operating outside a media scope, which leaves a possible gap for missing components influencing trust in media brands specifically. Defining media on a broader scale, studies such as those developed by Hess (2014), Malmelin & Moisander (2014), and Voci et al. (2019) determined a fundamental perception of what media and media companies are and how they differentiate from brands in general. In summary, while brands in general rather operate on a persuasive manner, exploiting media channels to communicate their offers and aiming for selling their products in a more-or-less frequent interval, media brands focus on engaging the consumer, building their business model on owned media content, user-generated content and advertising combined and focusing on the attention of consumers (Eisend, 2012; Malthouse & Calder, 2018; Ots &

Hartmann, 2015). However, all publications in this area were focused on media in general or media companies, leaving a research gap on media brands to be filled as of yet.

Addressing this gap, a fundamental definition of media brand characteristics is required. Based on available publications and additional quantitative and qualitative studies, Heim et al. (2022) developed a foundation incorporating traditional (e.g. CNN, New York Times, RTL) and modern (e.g. Facebook, TikTok, Netflix) media brands and approaching the topic from a user-centric perspective. Based on this definition, they also presented comprehensive research on what influences media brand trust. This framework exceeds previous brand trust approaches and adds elements such as Halo, describing the bidirectional impact of media environment and media content on each other (Liu-Thompkins, 2019), and Commercialism, incorporating the level and method of integrating advertisements into media, which are specifically relevant to the media sector. Overall, they presented the eleven dimensions of Transparency, Integrity, Benevolence, Credibility, Competence, Experience, Relevancy, Likeness, Commercialism, Halo, and Time as underlying trust in media brands. While this research was based on a mixed-methods approach, the quantitative analysis of the respective contribution of each of those aspects of media brand trust and especially the development of items and factors underlying the framework is yet to be conducted. Building on this foundation and following the scale development procedure presented by Churchill (1979), this paper will focus on the establishment of the actual scale by the generation of items, conduction of quantitative surveys and, finally, the determination and validation of the resulting scale through reliability and validity testing. Our research questions to be addressed in this paper therefore are:

**RQ1:** How can media brand trust be measured?

**RQ2:** What factors constitute a media brand trust scale?

### 3. Method and Data

Based on a multinational quantitative study ( $n_{\text{tot}} = 1800$ ), we are aiming for the development of a valid and reliable media brand trust scale incorporating all items relevant to the measurement of trust in media brands. Participants were randomly selected on a national representative sample in acknowledgment with all consumers in a market being engaged with and using media brands in their daily lives.

By conducting surveys in Germany, the US, and Korea we ensure the developed media brand trust scale can be applied in a multinational setting. We decided on those countries based on two factors. First, the different media systems (US - private, Korea - public, Germany - mixed). Second varying cultural traits present in the three markets, such as the level of individualism (18 - US, 67 - DE, 91 - KOR) or long term orientation (100 - US, 83 - DE, 26 - KOR). Overall, analyzing the cultural traits presented by Hofstede (2011) showed opposing levels in the US and South Korea for all six dimensions, while Germany is culturally located between those two countries (for details see Hofstede Insights, 2023). Surveys were conducted by the German panel provider Appinio. We developed the survey questionnaire consisting of items focused on consumers' media brand usage, reasons for media usage, and finally items incorporating all previously defined components of media brand trust. Additionally, we included a single-item rating on participants' media brand trust to permit a comparison of the calculated media brand trust to the self-perception of participants. To ensure national representation and provide additional information on the participants we also collected participants demographic information (i.e. age, gender, income).

Media brand trust was established based on the framework presented by Heim et al. (2022). The presented model was developed through multinational research consisting of literature reviews, focus groups and expert interviews. By combining available trust research and trust scales with the analysis of consumers responses when asked about their trust and consumption in media brands, the framework consists of the eleven components presented above, namely Transparency, Integrity, Benevolence, Credibility, Competence, Consistency (named Experience in the previous paper), Relevancy, Likeness, Commercialism, Halo, and Time. From this publication we incorporate the definitions of the elements as follows: (1) Transparency, refers to the media brand's business operation and openness about production processes, (2) Integrity, describes

the distribution of unbiased information and the honest reporting of facts, (3) Benevolence, defined as the sense for justification and responsibility represented by a media brand, (4) Credibility, determined as the believability of content disseminated by a media brand, (5) Competence, described as the expertise of a media brand (and its employees) in the respective area, (6) Consistency, representing the continuous quality of the product/service provided by a media brand over time, (7) Relevancy, determined as the importance of a media brand's content for consumers' daily lives, (8) Likeness, referring to the similarity between consumers and the media brands they engage with, (9) Commercialism, described as the way a media brand generates money and, given the importance of advertisements for this area, how ads are integrated and marked as such, (10), Halo, defined as the mutual influence of content and environment responsible for consumers' perception of both, and (11) Time, referring to the time a media brand is known (and used) by consumers (Heim et al., 2022). All of those items were found to be connected to consumers' trust in media brands on a multi-national level, given their identification from surveys in Germany, the US and South Korea.

Items were derived from scales for each of those components available in the literature and statements developed from the results of the focus group interviews conducted preceding this research. Resulting from this approach we collected a list of 39 items underlying the presented framework of media brand trust. This way we ensured the comprehensive foundation of all components of media brand trust included in the scale to be developed. Table 1 gives an overview on the sources for those items of each component included in the research.

| Trust Component | Sources  |
|-----------------|--|
| Transparency    | Busser & Shulga, 2019; Ganesan & Hess, 1997; Kang & Hustvedt, 2013                                 |
| Integrity       | Gurviez & Korchia, 2003; Meyer, 1988; Morhart et al., 2015; Venable et al., 2005; Xie & Peng, 2009 |
| Benevolence     | Ganesan & Hess, 1997; Kervyn et al., 2012; Munuera-Aleman et al., 2003                             |
| Credibility     | Erdem et al., 2006; Heim et al., 2022; Meyer, 1988   |
| Competence      | Aaker, 1997; Kervyn et al., 2012; Peter et al., 2017; Xie & Peng, 2009;                            |
| Consistency     | Erdem et al., 2006; Heim et al., 2022; Koçak et al., 2007; Sweeney & Soutar, 2001                  |
| Relevancy       | Guèvremont et al., 2020; Hammerschmidt & Donnevert, 2007   |
| Likeness        | Heim et al., 2022; Tuškej et al., 2013   |
| Commercialism   | Heim et al., 2022  |
| Halo            | Heim et al., 2022  |
| Time            | Erdem et al., 2006; Heim et al., 2022  |

**Table 1: Components and Item Sources for Media Brand Trust Scale Development**

Starting from the English version of the questionnaire we translated the surveys into German and Korean with native-speaking team members and professional translators to ensure equivalence of all items independent of language. Before launching the full survey we conducted a pre-test in all three markets and adapted the final survey according to the results. The surveys were then controlled for quality through speed run recognition, identification of behavioral patterns, control questions, inconsistency in responses and final manual checks. Before rating the items underlying each element of media brand trust, participants were asked to pick all brands they use “on a regular basis” from a list of twelve brands representing the media categories “Social Media”, “Music Streaming”, “Video Streaming”, “TV Channels”, “Film Studios”, and “Online News”. Those categories were selected from the media brand framework developed in the study presented by Heim et al. (2022), defining the term ‘media brand’ and categorizing brands from a consumer’s perspective. Given all selected categories were defined as “media” in this publication, we were able to select brands from those areas and combine them into a comprehensive dataset, representing media brands in all three markets from a broad perspective. As media brand usage could have an impact on media brand trust itself, we randomly assigned one of the chosen brands to each participant and thus gained responses on brands they use while reducing the bias of increased usage frequency simultaneously. Items were rated on a 7-point Likert scale.

The brands varied between the countries to ensure relevance to the participants. We included 12 brands per country into the survey to provide participants with two brands per category. With some overlaps between the countries we included 30 different brands in total to comply with the central limit theorem and ensure reduction of biases induced through the differences between media brands (Chang et al., 2008). With the initial set of 600 responses on 12 different brands per country, we set the number of responses per brand to range from 40-60 to assure equality between the different options. To establish the media brand trust scale we combined the cross-national data into one comprehensive dataset to develop a scale applicable in a multinational context. After cleaning and aligning the data from all three countries we obtained a set of  $n = 1758$  responses ( $n = 586$  per country).

In order to analyze the latent structure of the media brand trust scale, the 1758 participants were randomly split into two subsamples. To obtain a split dataset consisting of an equal number of responses per country, we randomly split each country set first, combining the resulting splits into two multinational samples subsequently. One subsample was used for Exploratory Factor Analysis (EFA; sample A = 879 participants; 426 males, 48.5%; 453 females, 51.5%; M Age = 40.8, SD = 12.9), and the other subsample was used for Confirmatory Factor Analysis (CFA; sample B = 879 participants; 432 males, 49.2%; 447 females, 50.8%; M age = 40.2, SD = 13.2). The subsamples did not differ statistically with regard to age ( $t = .99, p > .05$ ), gender ( $\chi^2 = .86, df = 1, p > .05$ ), education ( $t = .47, p > .05$ ), income ( $t = -1.23, p > .05$ ), and political orientation ( $t = -.26, p > .05$ ). We then conducted EFA with the first subset to analyze the quantitative validity of the dimensional structure presented above and to establish a structure of media brand trust based on this framework. Following this phase we analyzed the resulting structure with the second subset using CFA to establish and validate the media brand trust scale. Finally, all results were checked for validity and reliability through all established measures presented in chapter 4.



## 4. Results

The initial phase of analysis was conducted with the first subset of cross-national, national representative data from Germany, the US and South Korea ( $n = 879$ ). Following and combining different methods (i.e. Parallel Analysis, Scree Plot, Kaiser Criterion, MAP Test) to establish the number of factors representing the data, we decided on a model consisting of four factors, as all results suggested this to be the best depiction of the data.

To obtain the final dataset we combined statistical and conceptual analysis. First, we calculated the Kaiser-Meyer-Olkin (KMO) criterion to measure sampling adequacy (MSA) and removed all variables with an MSA  $< .5$  (Kaiser & Rice, 1974). Second, we conducted EFA with the resulting data and removed all items with a factor loading  $< .4$  to obtain stable factors (Pituch & Stevens, 2015). We also checked for cross-loadings and ambiguities in the factor structure and analyzed all removed items from a conceptual perspective, resulting in a dataset consisting of 25 items (Table 2).

| Code | Item  | Mean | SD   |
|------|---|------|------|
| TRN1 | The media brand addresses mistakes openly   | 4.80 | 1.38 |
| TRN2 | The media brand is open in its business practices                                       | 4.57 | 1.43 |
| INT1 | The media brand is honest with its consumers  | 4.79 | 1.37 |
| INT2 | The media brand is unbiased   | 4.68 | 1.44 |
| INT4 | The media brand has moral principles  | 4.85 | 1.36 |
| BEN1 | The media brand consistently acts with the public's best interests in mind              | 4.76 | 1.39 |
| BEN2 | The media brand has a sense of responsibility   | 4.94 | 1.37 |
| BEN3 | The media brand considers consumer interests when problems arise                        | 4.74 | 1.37 |
| CRE1 | The media brand's product/service claims are believable                                 | 5.07 | 1.26 |
| CRE2 | The media brand's content is verifiable   | 4.98 | 1.28 |
| CRE3 | The media brand is accurate   | 5.06 | 1.28 |
| CMP2 | The content produced by the media brand is intelligent and well thought through         | 5.00 | 1.28 |
| CMP3 | The content distributed by the media brand is developed by experts                      | 4.94 | 1.38 |
| CMP4 | I can rely on the media brand to meet my expectations                                   | 5.09 | 1.28 |
| CON1 | The media brand has consistent quality  | 5.19 | 1.28 |
| CON2 | Over time, my experiences with this brand have led me to expect it to keep its promises | 5.12 | 1.30 |
| REL1 | The media brand plays an important role compared to other decision criteria             | 4.76 | 1.39 |
| LIK1 | My personality and the personality of the media brand are very similar                  | 4.63 | 1.46 |
| LIK2 | I have a lot in common with other people using this media brand                         | 4.80 | 1.39 |
| COM1 | I understand that the media brand need ads to earn money                                | 5.31 | 1.31 |
| COM2 | I appreciate that the media brand is transparent about their ad placement               | 4.85 | 1.34 |
| COM4 | It's ok to have commercials so I can consume the content of this brand for free         | 5.04 | 1.48 |
| HAL1 | Using the media brand has an impact on the trust I feel towards the media content       | 4.96 | 1.22 |
| HAL2 | The content I consume has an impact on the trust I feel toward the media brand          | 5.08 | 1.19 |
| HAL4 | The media brand provides me with content from brands and individuals simultaneously     | 4.97 | 1.24 |

**Table 2: Overview of Items underlying the Media Brand Trust Scale Development**

All components except “Time” presented in the media brand trust framework were retained and included in the media brand trust scale. “Time” items were shown to reduce the model’s fit. Additional conceptual reasons - the Time items seem to capture more an antecedent than a component of trust - made it advisable to remove the items from the model. The average coefficient of variation was calculated as 28%. Cronbach’s alpha of the components included in this final data ranged from .68 (Commercialism) to .86 (Benevolence). Since alpha values <.6 are generally considered unacceptable and those >.8 very good, we continued the analysis with this dataset (Takegata et al., 2017).

Analyzing the data through EFA we established the structure presented in Table 3. We decided to conduct the analysis with orthogonal equamax rotation to establish uncorrelated factors. The extracted factors explained 56% of the variance in the data.

Communality testing of the presented EFA analysis showed values >.3 for all items included (Field, 2018).

| Item   | Factor 1   | Factor 2   | Factor 3   | Factor 4   |
|--|------------|------------|------------|------------|
| <i>Factor 1 (.163)</i>   |            |            |            |            |
| TRN1   | <b>.55</b> | .26        | .34        | .27        |
| TRN2   | <b>.56</b> | .30        | .29        | .20        |
| INT1   | <b>.67</b> | .34        | .36        | .21        |
| INT2   | <b>.63</b> | .24        | .33        | .12        |
| INT4   | <b>.66</b> | .28        | .36        | .21        |
| BEN1   | <b>.66</b> | .31        | .37        | .18        |
| BEN2   | <b>.57</b> | .35        | .36        | .28        |
| BEN3   | <b>.62</b> | .31        | .34        | .25        |
| <i>Factor 2 (.156)</i>   |            |            |            |            |
| CON1   | .28        | <b>.53</b> | .19        | .32        |
| CON2   | .25        | <b>.55</b> | .17        | .35        |
| CRE1   | .36        | <b>.63</b> | .29        | .25        |
| CRE2   | .30        | <b>.57</b> | .34        | .20        |
| CRE3   | .36        | <b>.60</b> | .32        | .23        |
| CMP2   | .25        | <b>.60</b> | .39        | .26        |
| CMP3   | .26        | <b>.56</b> | .34        | .17        |
| CMP4   | .31        | <b>.61</b> | .32        | .22        |
| <i>Factor 3 (.134)</i>   |            |            |            |            |
| LIK1   | .34        | .21        | <b>.76</b> | .21        |
| LIK2   | .25        | .30        | <b>.55</b> | .31        |
| REL1   | .32        | .27        | <b>.54</b> | .30        |
| <i>Factor 4 (.115)</i>   |            |            |            |            |
| COM1   |            | .24        |            | <b>.57</b> |
| COM2   | .23        | .17        | .28        | <b>.53</b> |
| COM4   | .13        |            | .19        | <b>.51</b> |
| HAL1   | .14        | .20        | .30        | <b>.52</b> |
| HAL2   |            | .21        | .24        | <b>.51</b> |
| HAL4   | .22        | .14        | .22        | <b>.58</b> |
| Notes: Number in ( ) are proportion of variance explained by the factor<br>Entries are factor analysis loadings after Equamax rotation |            |            |            |            |

**Table 3: EFA Results on Media Brand Trust Structure and Items**

From the EFA results we can generate an understanding of the nature of each factor underlying media brand trust. Combining items underlying the framework of media brand trust, the analysis determined a structure consisting of the following four comprehensive factors.

First, connecting “Transparency”, “Integrity”, and “Benevolence” we established the factor “Transparent Goodness” (TG) describing the intentionality and transparent communication of the media brand. This factor is relevant to consumers in terms of generating a positive sentiment required to develop trust in the media brand. While not all

components have been connected in the same study as of yet, research such as presented by Chari et al. (2016) already showed the influence of “Benevolence” and “Integrity” on the development on trust, while Mal et al. (2018) showed the strong connection between “Transparency” and “Integrity”.

Second, consisting of “Credibility”, “Competence”, and “Consistency”, we determined the factor “Credible Competency” (CC) that is focused on the media brand’s abilities, the believability of its content and the perception of those elements based on past experiences. In line with previous brand trust scales, this factor describes the importance of continuous competent and credible business practices for consumers. As the media brand’s competence is based on the employee’s performance (e.g. CMP3 - "The content distributed by the media brand is developed by experts"), the connection of credibility and competence is supported by research presented by Chouhan & Srivastava (2014), who strongly suggested the impact of employee’s competence on the credible perception of a company. Additionally, Nayeem et al. (2019) showed that consumer’s perception of a brand’s credibility can only be established through consistent performance of the brand, further supporting the connection of components in this factor.

Third, the items connected to “Likeness” and “Relevancy” were detected as the factor “Life Relevancy” (LR), describing the congruence between the consumer and the media brand, the resemblance with other consumers of this brand and the relevance of the content provided by the brand. This connection is strongly supported by Chernev et al. (2011) who described a brand’s personal relevance (i.e. "Life Relevancy") as "[...] the degree to which consumers perceive a brand to be related to their identity and to which they have closer personal relationships than with other brands".

Fourth, “Commercialism” and “Halo” were combined to the factor “Market Orientation” (MO) that is focused on the media brand’s approach to monetize its contents and the mutual influence between media environment and content. Especially in today’s media system, consumers face professional and user-generated content simultaneously while also being exposed to advertisements. Media brands need to establish a transparent approach on combining those different content types and establish a media environment that appears trustworthy to consumers (Liu-Thompkins, 2019).

Next, on the basis of the EFA results, we conducted a CFA with the second data subset (n = 879) to determine the final structure and loadings of all items and factors

underlying media brand trust. In line with the suggestions presented by Li et al. (2008), we analyzed the data as a second-order model, defining the previously established factors as first- and media brand trust as second-order level of the analysis. Table 4 presents the results of our CFA analysis and highlights the loadings and model fit indices.

| Item | R <sup>2</sup> | Transparent Goodness (TG) | Credible Competency (CC) | Life Relevancy (LR) | Market Orientation (MO) | Media Brand Trust (MBT) |
|------|----------------|---------------------------|--------------------------|---------------------|-------------------------|-------------------------|
| TRN1 | .58            | .335                      |                          |                     |                         |                         |
| TRN2 | .49            | .336                      |                          |                     |                         |                         |
| INT1 | .72            | .387                      |                          |                     |                         |                         |
| INT2 | .55            | .363                      |                          |                     |                         |                         |
| INT4 | .70            | .392                      |                          |                     |                         |                         |
| BEN1 | .65            | .370                      |                          |                     |                         |                         |
| BEN2 | .64            | .369                      |                          |                     |                         |                         |
| BEN3 | .61            | .360                      |                          |                     |                         |                         |
| CON1 | .53            |                           | .317                     |                     |                         |                         |
| CON2 | .53            |                           | .325                     |                     |                         |                         |
| CRE1 | .68            |                           | .376                     |                     |                         |                         |
| CRE2 | .62            |                           | .374                     |                     |                         |                         |
| CRE3 | .69            |                           | .386                     |                     |                         |                         |
| CMP2 | .56            |                           | .328                     |                     |                         |                         |
| CMP3 | .54            |                           | .340                     |                     |                         |                         |
| CMP4 | .62            |                           | .359                     |                     |                         |                         |
| LIK1 | .66            |                           |                          | .571                |                         |                         |
| LIK2 | .54            |                           |                          | .477                |                         |                         |
| REL1 | .58            |                           |                          | .501                |                         |                         |
| COM1 | .32            |                           |                          |                     | .542                    |                         |
| COM2 | .42            |                           |                          |                     | .649                    |                         |
| COM4 | .29            |                           |                          |                     | .629                    |                         |
| HAL1 | .48            |                           |                          |                     | .655                    |                         |
| HAL2 | .43            |                           |                          |                     | .629                    |                         |
| HAL4 | .39            |                           |                          |                     | .585                    |                         |
| TG   | .90            |                           |                          |                     |                         | 2.913                   |
| CC   | .88            |                           |                          |                     |                         | 2.708                   |
| LR   | .77            |                           |                          |                     |                         | 1.843                   |
| MO   | .45            |                           |                          |                     |                         | .899                    |

**Notes:** Standard first-order loading is the standard regression weight of the individual variables' loading on to one of the component factors. Second-order loading is the non-standardized regression weight of the factors on the overall DV (MBT).  $\chi^2 = 805.322$ ,  $\chi^2 / df = 2.97$ ,  $df = 271$ , AGFI = .917, RMSEA = 0.047, CFI = .960, TLI = 0.956, SRMR = .037

**Table 4: Loading of the second-order CFA on Media Brand Trust**

From the CFA results we determined that all items are relevant to their respective factors and that all factors are significantly driving media brand trust. With the analysis we determined the loadings of all items and factors included in the model and empirically established the media brand trust scale. Observing the factors it becomes clear that their impact on media brand trust is declining in the order the factors are presented, however, all factors are required to establish the measure and need to be included in the model. Testing the model for reliability we first checked for discriminant validity. We approached this analysis conducting heterotrait-monotrait analysis (HTMT) in line with the suggestions presented by Voorhees et al. (2015). This analysis resulted in values  $< .9$  for each factorial relation (TG ~ CC = .881, TG ~ LR = .858, TG ~ MO = .570, CC ~ LR = .795, CC ~ MO = .685, LR ~ MO = .584), which complies with the thresholds required for valid models (Henseler et al., 2014). Additionally, the model was tested for convergent validity following Bagozzi and Yi's (1988) suggestion. As all items loaded positively on their factor and all estimates were positive and significant, this test was confirmed. Additionally, as all loadings were significant we compared them to their respective standard errors, which resulted in margins in a range 10-20 times higher. From these results we were able to confirm convergent validity in line with the suggestions presented by Anderson and Gerbing (1988).

In line with the scale development approach applied by Tian et al. (2001) we also calculated a variety of different models with our data to make sure the chosen model is the best possible option. Table 5 combines the model fit statistics of all options.

| Competing Models                                       | Chi-square | df  | CFI  | TLI  | RMSEA |
|--|------------|-----|------|------|-------|
| Null model   | 13635.868  | 271 | -    | -    | -     |
| One-factor model                                       | 1984.481   | 275 | .872 | .860 | .084  |
| Two-factor orthogonal model                            | 1694.963   | 300 | .893 | .883 | .077  |
| Three-factor orthogonal model                          | 1124.589   | 249 | .930 | .923 | .063  |
| Four-factor orthogonal model (Media Brand Trust Scale) | 805.322    | 271 | .960 | .956 | .047  |
| Four-factor oblique model                              | 805.055    | 270 | .960 | .955 | .047  |
| Five-factor orthogonal model                           | 891.176    | 270 | .953 | .948 | .051  |

**Table 5: Model Fit Indices for Competing Measurement Models**

Comparing all those options highlights the superiority of a four factor model. While the models created by orthogonal and oblique rotations show similar results with four factors, due to the purpose of this research (i.e. scale development), the orthogonal version resulting in uncorrelated factors is preferred.

Besides this general scale development and validation, we conducted additional analysis on the criterion related validity of this scale by comparing a calculated media brand trust score to the results of the single-item trust question included in the survey, which resulted in a correlation of  $r = .73$ . While this comparison is a good indicator for the applicability of the media brand trust scale to measure trust in media brands, according to Diamantopoulos et al. (2012) and Rossiter (2002), it is necessary to determine which type of measurement (single- or multi-item) fits the construct. According to Rossiter (2002) single items should be favored when the object to be rated (i.e. media brands) and attribute (i.e. trust) can be determined as "concrete", meaning that every person would define the object and attribute the same. While media brands could be argued as "concrete" objects, trust is far too complex to be perceived and defined equally by all (Ha, 2004). This perception on single- and multi-item constructs was even further expanded by Diamantopoulos et al. (2012), who argued that in most cases the multiple-item construct should be used while single items should only be applied only in certain situations and environments. Therefore, measuring trust in media brands is preferably conducted with a multi-item scale such as presented in this paper.

## **5. Discussion & Conclusion**

From the two phases of factor analysis we first determined the structure of media brand trust consisting of the four factors "Transparent Goodness", "Credible Competency", "Life Relevancy", and "Market Orientation". Second, we developed a reliable and valid second-order model consisting of 25 items underlying this structure. This model was checked for validity through all relevant model fit statistics and demonstrated excellent findings. By comparing the model fit statistics of models with a different number of factors and different rotation methods we were able to provide evidence for the superiority of the developed model, best representing the data and thus establishing a reliable measurement of media brand trust. Besides the general development of the media brand trust scale and the statistical validation of the factor models, we also provided proof of the applicability of the scale in the actual measurement of media brand trust

through analyzing the calculated score with a single-item trust measurement, supporting the scale through high correlation. This research adds relevant insights into consumers' trust into media brands. While previous study on trust largely focused on brands in general, this paper contributes to research on media brands in specific, expanding available brand trust conceptualizations and providing the foundation for future analysis in this area. Especially due to the integration of all brands considered as media from a consumer's perspective into the development, the presented scale can serve as the starting point for research in media from different areas and builds the foundation for studies on the impact of trust in media brands as a whole.

### **5.1. Managerial Implications**

With the media brand trust scale we provide media brand managers with a tool to measure trust in their brands and support strategic decisions in the future. Besides the overall information on media brand trust itself, the model is especially relevant due to the specific observation of all components underlying trust in media brands that can be analyzed and improved accordingly. Media brand managers can thus not only understand consumer's trust in their brand and improve accordingly, they can even understand where low trust ratings might come from and adapt specific areas of the business operation. This is of major importance as media brand trust was shown to be of high complexity, which complicates the matter of improvement significantly. However, when working on media brand trust components such as the perceived competence, credibility or transparency of the media brand, media brand managers get the chance to specifically decide for procedures directed towards those traits, subsequently indirectly improving media brand trust and the connected media brand success factors (e.g. brand equity, purchase intentions).

Besides the importance of the media brand trust scale for media managers, advertisers also benefit from the insights into consumers' trust in specific media brands. By evaluating trust in media brands that could potentially serve as the environment of advertising campaigns and considering the halo effect, describing the transfer of trust from the environment to the ad, advertisers can improve their campaigns and increase the reward by incorporating this information into their considerations.



## **5.2. Limitations and Future Research**

This paper focused on the development and validation of a theoretically and statistically sound media brand trust scale. Besides the practical environment of media brands, advertisers and consumers, this version of the scale is of relevance to media research, providing insights into the characteristics and specifics of trust in the domain of media brands. While this contribution thus adds relevant insights to the scientific field, practical applications of scales mostly rely on short versions applicable in convenient field studies. Future research might hence focus on the development of a short version of the media brand trust scale, further expanding the external validations of the scale and provide proof of the similar applicability and validity of such a scale. Furthermore, while we have approached the development of the scale from a multi-national background by aggregating responses from consumers living in culturally diverse markets and different media systems, the application of the scale in a global environment requires further validations and applications outside those countries. Future research could therefore expand on the foundation provided in this research and validate the scale in additional markets. This is especially important due to the variety of cultural characteristics and the peculiarities of different media systems possibly influencing media brand trust amongst consumers.

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