

SOURCE CREDIBILITY MODEL, SOURCE ATTRACTIVENESS MODEL AND MATCH-UP-HYPOTHESIS – AN INTEGRATED MODEL

Roger Seiler, Gunther Kucza

Zurich University of Applied Sciences, St.-Georgen-Platz 2, 8400 Winterthur, Switzerland

Abstract

Customers find themselves in a flood of information and testimonials are one way of gaining the customer's attention. Previous studies have shown the positive effects of testimonials on purchase intentions. In this present study, different types of testimonials (celebrity and expert) are tested, and the fit between the product (ring, motorcycle and in/out-trays) congruency of the testimonial with the customer's image is introduced and analysed. Furthermore, not only is source credibility measured, but source attractiveness and expertise are also measured and combined in a new model integrating these three theories. The model shows direct and indirect effects of credibility and congruency on attitudes and purchase intentions. Product fit, in contrast to congruency, has a positive effect on attitude towards the ad and in turn influences attitude towards the brand, affecting purchase intention. Credible testimonials strongly influence this effectiveness, with trustworthiness being a main driver.

Key words: match-up-hypothesis, testimonials, credibility

1. INTRODUCTION

The flood of information many are experiencing (Hemp, 2009) has led to a battle for attention. Product quality has reached an unprecedented level, making it difficult for companies to use quality to differentiate themselves from their competitors (Fanderl, 2005). Furthermore, saturated markets have rendered many products and companies easily substitutable (Erdogan, 1999; Murrmann, 2008). In such a difficult business environment, testimonials are an option for solving this challenge. The use of testimonials in advertising is not a new phenomenon, and a considerable amount of research has been conducted regarding testimonials. The credibility of the source, for example, is a branch of research which has led to the source credibility model (Hovland and Weiss, 1951). This and other models, such as the source attractiveness model (McGuire, 1985) and the match-up-hypothesis (Forkan, 1980), have gained the attention of researchers. This has led to literature reviews (Erdogan, 1999), meta-analyses (Amos et al., 2008; Pornpitakpan, 2004) and the development of contemporary scales to conduct further research regarding testimonials (Ohanian, 1990).

In this study, we would like to contribute to this dynamic in research on the source credibility model, source attractiveness model and match-up-hypothesis by integrating these theories into one model, thus building an integrative model of testimonial advertisements. First, we begin with the state-of-the-art literature.

2. STATE-OF-THE-ART LITERATURE

Celebrity endorsements and testimonials are used to increase attention, polish the brand and product's image, introduce or reposition the brand, or underpin global campaigns (Erdogan, 1999). Because celebrities are human and the company cannot control their behaviour, this bears a risk if scandals or negative behaviour of the celebrity come to the customer's attention. This can have negative consequences for the brand. Therefore, companies and researchers try to understand how celebrity testimonials are best used in such as strategy. In the following, aspects and models shedding light on such an understanding are introduced, starting with stereotypes. Perception leads to stereotype categorisation, in turn spilling over onto the perception of attributes of products, brands and people.

Human beings tend to think in stereotypes as a way of categorising people they meet. This is a cognitive process that runs automatically and unconsciously (Gonçalves et al., 2014). Fiske et al.

(2002) show that the dimensions of warmth and competence are used to categorise people and countries and conclude their results with a stereotype content model with four categories: paternalistic prejudice, contemptuous prejudice, envious prejudice and admiration. Even though this process runs automatically, it is a complex process which has consequences on how a source is perceived.

Source credibility plays a role in this process, and in celebrity testimonial research. Where celebrities are used to enhance source credibility, a model called the source credibility model, dating back to Hovland and Weiss (1951), is used to analyse celebrity testimonial advertising and celebrity endorsement. Credibility has a positive, but complex (Sternthal et al., 1978), effect on the persuasiveness of a message (Harmon and Kenneth, 1982).

Not only is credibility an aspect that impacts the effectiveness of a message, and thus is important in testimonial advertising, but attractiveness too plays an important role as attractiveness plays a role in the categorisation of stereotypes. The source attractiveness model links similarity, familiarity and likeability of an endorser to the effectiveness of a message. This theory explains the effects of a source's attractiveness (McGuire, 1985).

Furthermore, the match between the source and receiver of a message plays a role in the persuasiveness of the message (Brownlow, 1992; Till and Busler, 1998, 2000), leading to a further model, the match-up-hypothesis. The match-up hypothesis states that a degree of congruency between the source and the receiver of a message positively affects the effectiveness of communication (Forkan, 1980; Kamins, 1990; Till and Busler, 1998). A fit between an image of the celebrity appearing in the endorsement should match with a product or brand to ensure effective communication and credibility (Kamins and Gupta, 1994; Misra and Beatty, 1990). A match between the celebrity and the customer's ideal self is desirable too, as this has positive effects on the endorsement's effectiveness (Choi and Rifon, 2012). Products also play an important role. Friedman and Friedman (1979) state that the product type and endorser type should match. For example, glamorous goods, such as jewels, should be endorsed by celebrities, whereas cleansing pumps should be endorsed by somebody perceived as an expert. According to Choi and Rifon (2012), testimonial customer and testimonial product congruence play an important role, whereas, according to the authors, the former has not yet been well researched.

Therefore, we identify a research gap where credibility, product fit and congruency should be integrated into a holistic model.

The empirical research in this field is divided. There is evidence that supports the match-up-hypothesis (Kamins, 1990; Till and Busler, 2000), but also contrary results stating that a slight or complete mismatch can be just as, or even more, effective as a match regarding positive effects on attitudes, purchase intention or positive word of mouth communication (Törn, 2012). Dahlén et al. (2005, 2008) previously found positive effects of incongruence supporting the more recent research of Törn (2012).

Therefore, we would like to further contribute to the existing research by conducting further research on the match-up-hypothesis, which is included in the integrative model used in this study.

Another effect justifying the use of celebrities in advertising is called the halo effect. The halo effect suggests that people ranking highly on a specific perceived trait generate a halo that positively or negatively influences judgement about another perceived trait of that person or product (Asch, 1946). Erdogan (1999) uses an example where attractive people are perceived to be smarter. In this example, a beauty trait spills over and affects perceptions of cognitive traits, hence beauty has a halo effect on intelligence. High attractiveness is linked to good product functionality (Nisbett and Wilson, 1977).

The source credibility model and the source attractiveness model are not without critics in this field of research (Bower and Landreth, 2001; Erdogan, 1999) and according to McCracken (1989), neither model can explain in detail a match between a testimonial and a specific product. In his three-stage model, the first stage consists of aspects, such as culture and image, that are formed in a social context and transferred to the celebrity. In a second stage, a meaning is transferred from the celebrity to the product before being transferred from the product to the consumer in the third and final stage.

Till and Busler (1998) call for a more direct comparison between attractiveness and expertise, as well as further research regarding empirical evidence on the match-up hypothesis, as the authors did not find strong evidence for attractiveness being a useful match-up dimension. Till and Busler (1998) point out that expertise may be more important than attractiveness when matching celebrities to products. The researchers further emphasise the importance of a careful selection of endorsers (Till and Busler, 1998, p. 582), a view shared by other researchers (Ohanian, 1990). Furthermore, Till and Busler (1998) assume that expertise may be more appropriate than attractiveness. With the research design in this present study, we follow the authors call and close this research gap by integrating these theories in our conceptual model (see Figure 1).

3. HYPOTHESIS

In the following, hypotheses are derived, and a conceptual model is proposed for testing the theories mentioned in the state-of-the-art literature.

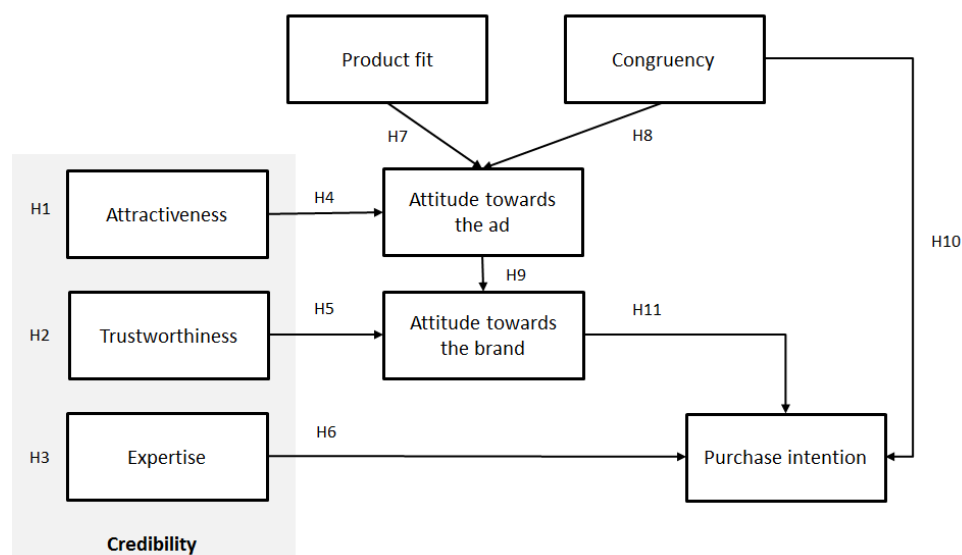


Figure 1. Conceptual Model

3.1. Attractiveness

Physical appearance is important and seldom goes unnoticed. In education, effects on grades can be explained by appearance, as better looking students often get better grades (Bull and Stevens, 1979; Clifford and Walster, 1973). Not only does attractiveness have an effect on perception and plays a role in stereotype categorisation (see chapter 2), facial appearance also has an influence on attitudes (Brownlow, 1992) and an attractive communicator's messages are shown to be more persuasive (Chaiken, 1979). We therefore derive our hypothesis number 1 stating that attractiveness positively effects credibility.

3.2. Trustworthiness

Not only does the character of a communicator play an important role (Ohanian, 1990) regarding the persuasiveness of a message, but findings of McGinnies and Ward (1980) suggest that an expert source that is viewed as trustworthy can induce opinion change. Furthermore, multiple authors include trustworthiness in their source credibility scale (Applbaum and Anatol, 1973; Bowers and Phillips, 1967; Whitehead, 1968). We would, therefore, like to include trustworthiness and hypothesise in hypothesis 2 that trustworthiness positively affects the credibility of a testimonial.

3.3. Expertise

Not only are attractiveness and trustworthiness important constructs regarding source credibility, but expertise, or a source's perceived expertise, has a positive effect on attitudes and source credibility (Biswas et al., 2006). Furthermore, this effect is included in the match-up hypothesis (Kahle and Homer, 1985; Kamins, 1990; Till and Busler, 1998, 2000) and identified as important in the meta-analysis of Amos et al. (2008), the literature review of Erdogan (1999) and highly relevant in the scale development of Ohanian (1990). We therefore derive our hypothesis number 3 stating that expertise positively affects credibility.

3.4. Attitude towards the ad

We draw from the implications of the source credibility model (Hovland and Weiss, 1951), which states that source credibility has a positive effect on the effectiveness of the message, and from the observation that credibility has a positive effect on attitudes and the behaviour of individuals (Sternthal et al., 1978). We also draw from research by Goldsmith et al. (2000), who find an influence of credible testimonials on attitudes towards advertising. Therefore, we hypothesise that credibility positively affects the attitude towards the ad, leading to hypothesis number 4.

3.5. Attitude towards the brand

Following the same line of argumentation, we would like to add a further, 5th hypothesis, stating that credibility positively affects the attitude towards the brand, as Wang et al. (2017) finds evidence that the attitude changing effects of credible sources can influence brand perceptions as well.

3.6. Expertise and purchase intention

Current research finds evidence for a link between credibility and purchase intentions (Tripp et al., 1994; Wang et al., 2017). Furthermore, drawing from the source credibility model (Hovland and Weiss, 1951) and the overview of studies (Amos et al., 2008; Erdogan, 1999; Pornpitakpan, 2004) backing the following hypothesis, we derive our 6th hypothesis stating that credibility positively affects purchase intentions.

3.7. Product fit and attitude towards the ad

Choi and Rifon (2012) find a strong (path coefficient = .489) and positive effect of product congruence and the attitude towards the ad. Other researchers also find support for the product match-up-hypothesis (Kamins, 1990; Kamins and Gupta, 1994; Till and Busler, 1998). We therefore derive our 7th hypothesis stating that product fit positively affects the attitude towards the ad.

3.8. Congruence and attitude towards the ad

Social attractiveness model theory suggests that the effectiveness of a message is influenced by perceived similarity with the endorser (McGuire, 1985). Feldman (1984) also finds evidence supporting a positive effect of similarity on attitudes. Recent research, however, points towards incongruence being more effective (Dahlén et al., 2005, 2008; Törn, 2012). Following this line of argumentation, we hypothesise that customer congruence negatively affects attitudes towards the ad, leading to hypothesis number 8.

3.9. Attitude towards the ad and attitude towards the brand

In the path model of Goldsmith et al. (2000), significant and positive effects of attitudes towards the ad, on attitudes towards the brand and in turn on purchase intentions, can be identified. The authors ground this functional chain on the dual mediation hypothesis (MacKenzie et al., 1986). Because this study finds empirical evidence, we would like to contribute by verifying their results. We therefore follow up on this research and hypothesise that attitudes towards the ad positively affect attitudes towards the brand, leading to our 9th hypothesis.

3.10. Congruence and purchase intention

However, there is some discussion as to whether a perfect match is most effective. Evidence for a match is provided (Kamins, 1990; Kamins and Gupta, 1994) and further researchers find support for

the matchup hypothesis (Kamins, 1990; Lynch and Schuler, 1994; Till and Busler, 1998). Some authors, on the other hand, find positive effects on purchase intentions and attitudes if there is a moderate mismatch (Lee and Thorson, 2008), a complete mismatch (Törn, 2012) or incongruence (Dahlén et al., 2005, 2008). We choose to follow the latest research results, as in Törn (2012) and Choi and Rifon (2012), by hypothesising that customer congruence negatively affects purchase intention in our 10th hypothesis.

3.11. Attitude towards the brand and purchase intention

Previous and current research suggests that attitudes towards a brand have a positive effect on purchase intentions (Goldsmith et al., 2000; Hartmann and Apaolaza-Ibanez, 2012; Lutz et al., 1983; Shah et al., 2012; Spears and Singh, 2004; Teng et al., 2007; Wu and Lo, 2009). Research regarding luxury goods support these results (Bian and Forsythe, 2012) and are backed by other researchers (Choi and Rifon, 2012). We therefore derive hypothesis number 11 stating that attitude towards the brand positively influences purchase intentions.

We would like to collectively add a remark regarding all hypotheses linking attitudes to behaviour. Extending empirical evidence, which, for example, can be found in Choi and Rifon (2012), we are basing these hypotheses additionally on the theory of planned behaviour (Ajzen, 1985, 1991), hereafter called TPB, and the theory of reasoned action (Fishbein, 1979; Fishbein and Ajzen, 1975), hereafter called TRA. Thus, we are further adding to the line of argumentation of each of these hypotheses, as we consider this theory widely used and accepted and therefore theoretically support these hypotheses linking attitudes to behaviour.

4. OPERATIONALIZATION, METHOD & RESULTS

In the following operationalization, method used and the results are reported, beginning with the operationalization of constructs.

4.1. Operationalization

Attractiveness is measured using the five differential scales used in Ohanian (1990) and similarity by using those of Choi and Rifon (2012) as a semantic differential. Trustworthiness is based on Ohanian (1990) and operationalized as a five-dimensional construct by measuring five attributes again on a semantic differential scale.

Bipolar scales are used to measure expertise, and we draw from the work of Ohanian (1990) to measure this construct with a five-item scale.

The credibility construct is composed of expertise, attractiveness and trustworthiness, according to Ohanian (1990), and therefore leads to a thirteen-item scale.

Product fit as a construct was measured using four dimensions, all with semantic differentials as used in Choi and Rifon (2012).

In this study, we measure congruence as operationalized in Choi and Rifon (2012) using a fifteen-item bipolar scale item battery, and from the same authors, the customer's attitude towards the advertisement and brand were measured with five and four items, respectively.

Congruency was calculated using the ideal congruity score as used in Choi and Rifon (2012) by subtracting the testimonial image minus the self-image of participants (see Figure 2). C_{ij} represents the testimonial image (i) of the individual (j) and I_{ij} represents the ideal self (i) of an individual (j).

$$ICS_j = \sum_{i=1}^n |C_{ij} - I_{ij}|$$

Figure 2. Ideal Congruency Score (ICS)

Purchase intention was measured using a single-item scale, as used in Choi and Rifon's (2012) study.

4.2. Method

The study is a between-subject online experiment, implemented with Unipark (online survey software) and SPSS is used to analyse the data. Testimonials and advertisements are used as stimuli, as there is no need to control for voice, mimicry or gestures (Gierl and Praxmarer, 2001), in contrast to a video stimuli. We chose the fictive brand name, "Aerius," to avoid confounding effects with existing brands (Choi and Rifon, 2012; Till and Busler, 1998).

Furthermore, pictures of celebrities and products were converted to black and white. They are of a similar size and no product descriptions are present in order to avoid any confounding effects (Choi and Rifon, 2012; Friedman and Friedman, 1979). In this paper, we analyse the conceptual model.

This study is split into a pre- and main study. The pre-study has the purpose of identifying products and suitable testimonials which are then used as stimulus material in the main study in an online survey.

4.3. Pre-study

The pre-study was conducted with 10 master's students. Products were analysed using the risk categories of Friedman and Friedman (1979). Products were identified and chosen by analysing risk classes and perceived risk levels. Jewellery had a high perceived psychological risk ($m=5.6$) and a high social risk ($m=6.0$). Motorbikes had a high perceived financial risk ($m=6.3$), a high perceived physical risk ($m=5.5$), a high perceived functional risk ($m=5.8$) and a low perceived risk for in/out trays ($m \leq 1.5$).

The pre-study of testimonial types is based on the studies of Friedman and Friedman (1979) as well as Choi and Rifon (2012). The source credibility model (attractiveness, trustworthiness and expertise) was used for testimonial analysis, and Ohanian's (1990) scale was used in a questionnaire to measure and then analyse the testimonials.

In addition, celebrities were identified via social media and an image of these celebrities were obtained via Google's image search with restrictions such as no text present in the image, the celebrity is looking directly at the camera (direct eye contact), only one person visible, and no other creatures are visible. Twenty testimonial types were tested, and the picture was depicted in grayscale instead of colour. Roger Federer achieved the highest ratings, and for the expert person seven are most credible and thus used in the testimonial (see Table 1 and Appendix for an overview of images used).







	Ring	Motorbike	In-/Out-Tray
Celebrity			
Expert			

Table 1. Testimonial and Product Type

A pre-test was conducted to check for lack of clarity, and apart from adding an input constraint to the age range (between 0 and 99 years) of the online survey nothing was changed.

4.4. Manipulation Check

The online survey contains a manipulation check question asking participants to answer a question regarding the role of the person or the type of testimonial shown. Participants answering this question wrong were excluded from the analysis as we need to assume that they did not have the attention needed to take part in the experiment.

4.5. Sample Description

The online questionnaire was sent to students at the University of Applied Sciences on the 26th of April 2017, and 484 completed questionnaires were collected. After the elimination of outliers excluded 20 participants, an n of 364 can be reported.

Using χ^2 -and t-tests to check for sociodemographic differences between groups, no significant differences between groups are found. Neither age ($F(11)=.844$, $p>.05$) nor gender ($\chi^2(11)=18.829$, $p>.05$) nor place of residence ($\chi^2(33)=41.169$, $p>.05$) nor relationship status ($\chi^2(11)=8.423$, $p>.05$) show significant differences between groups.

4.6. Reliability

Cronbach's Alpha is used to check if factors are reliable and in this study all factors have Cronbach Alpha values within a range of .790 to .959 (see Table 2) therefore there is no need to exclude items from factors, and we continue analysis of these items.

Prior to hypothesis testing, we conduct basic tests to see if further analysis is viable. With one exception Kaiser-Meyer-Ohlin (KMO) values are in a range of .789 to .912 (see Table 3). The exception is purchase intentions, with a value of .500. Because the scale regarding purchase intentions is exactly the same as the one used in Choi and Rifon (2012) and no other factors need to be eliminated due to lack of explained variance we decide not to exclude purchase intentions. In addition to KMO we use Barlett's test of sphericity and all constructs show a p-value smaller than .01 and thus further analysis can be conducted.

Construct	Cronbach's Alpha	Number of Items	Cronbach's Alpha in Choi and Rifon (2012)
Attitude towards the brand	.926	4	.920
Attitude towards the ad	.924	5	.930
Attractiveness	.859	5	.870
Credibility	.895	15	n.a.
Expertise	.947	5	.870
Image Participant	.790	15	n.a.
Image Testimonial	.837	15	n.a.
Product fit	.946	4	.940
Purchase Intention	.968	2	.710

Table 2. Cronbach's Alpha Values

Constructs	KMO	Barlett's test	Total Variance Explained (in %)
Credibility	.892	.000	43.29
Trustworthiness	.884	.000	75.29
Expertise	.881	.000	83.25
Image Testimonial	.870	.000	35.08
Attitude towards the ad	.860	.000	76.77
Product-Fit	.834	.000	86.19
Attitude towards the brand	.833	.000	81.87
Image Participant	.816	.000	27.51
Attractiveness	.789	.000	65.50

Table 3. KMO, Barlett's test and Total Variance Explained

4.7. Hypothesis testing

Test results of the conceptual model containing our hypotheses are reported in the following. Regression analysis ($F(3,360)=4973.939$, $p<.05$) is conducted and attractiveness ($\beta=.376$, $t=39.846$, $p<.05$), trustworthiness ($\beta=.625$, $t=62.333$, $p<.05$) and expertise ($\beta=.256$, $t=29.461$, $p<.05$) show positive and significant effects on credibility whilst simultaneously explaining 97.6% of total variance. We therefore accept hypotheses number 1, 2 and 3. For an overview of all regression coefficients see Figure 3.

A regression of credibility on the attitude towards the ad ($F(1,362)=27.483$, $p<.05$) show significant effects ($\beta=.266$, $t=5.242$, $p<.05$) and explains 6.8% of the total variance. Therefore, we accept hypothesis number 4.

The credibility of testimonials regressed on the attitude towards the brand ($F(1,362)=22.805$, $p<.05$) is significant ($\beta=.243$, $t=4.775$, $p<.05$) with an R-squared value of .057. As this regression is significant, we accept hypothesis number 5.

Regression analysis of credibility on purchase intention ($F(1,362)=25.185$, $p<.05$) turns out to be significant ($\beta=.255$, $t=5.018$, $p<.05$) and explains 6.2% of total variance. Therefore, we accept hypothesis number 6.

Regression of product on attitude towards the ad ($F(1,362)=349.499$, $p<.05$) shows significant effects ($\beta=.701$, $t=18.695$, $p<.05$) and explains 49% of total variance. This shows support for hypothesis number 7, which is thus reported as accepted.

Analysis by means of regression ($F(1,362)=13.772$, $p<.05$) of customer congruency on attitude towards the ad shows significant effects ($\beta=-.191$, $t=-3.711$, $p<.05$) and explains 3.4% of total variance. Therefore, we accept hypothesis number 8.

Regression analysis of attitudes towards the ad on attitudes towards the brand ($F(1,362)=648.808$, $p<.05$) shows significant effects ($\beta=.801$, $t=25.472$, $p<.05$) whilst explaining 64.1% of total variance. This supports hypothesis number 9, leading it to be accepted.

Regression of customer congruency on purchase intention ($F(1,362)=22.421$, $p<.05$) shows significant effects ($\beta=-.242$, $t=-4.735$, $p<.05$), explains 5.6% of total variance and thus supports hypothesis number 10, which is accepted.

Attitudes towards the brand regressed on purchase intention ($F(1,362)=483.888$, $p<.05$) shows significant effects ($\beta=.756$, $t=21.997$, $p<.05$) explaining 57.1% of total variance. Therefore, hypothesis number 11 is accepted.

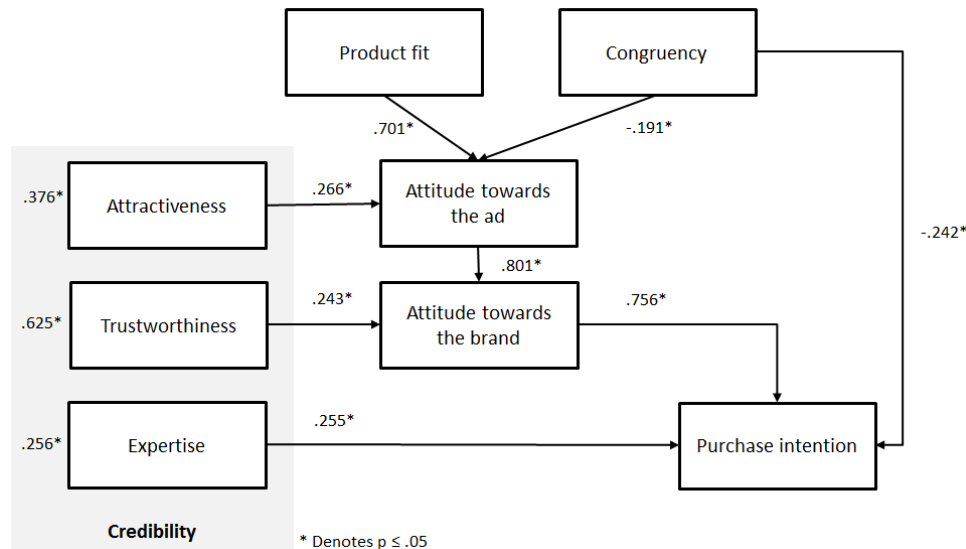


Figure 3. Observed effects

Number	Hypothesis	Result
1	Attractiveness positively affects credibility.	Accept
2	Trustworthiness positively affects credibility.	Accept
3	Expertise positively affects credibility.	Accept
4	Credibility positively affects attitude towards the ad.	Accept
5	Credibility positively affects attitude towards the brand.	Accept
6	Credibility positively affects purchase intention.	Accept
7	Product fit positively affects attitude towards the ad.	Accept
8	Congruency negatively affects attitude towards the ad.	Accept
9	Attitude towards the ad positively affects attitude towards the brand.	Accept
10	Congruency negatively affects purchase intention.	Accept
11	Attitude towards the brand positively affects purchase intention.	Accept

Table 4. Hypothesis Overview and Results

5. DISCUSSION

Regarding the results of regression analysis, we conclude that attitude towards the ad ($\beta=.801$), product fit ($\beta=.701$) and attitude towards the brand ($\beta=.756$) have high coefficients and thus strongly influence other constructs. Starting with credibility, trustworthiness ($\beta=.625$) shows the strongest effect on credibility, followed by attractiveness ($\beta=.376$) and expertise ($\beta=.256$). Trustworthiness can therefore be identified as most important if credibility is to be positively influenced, as well as the attitude towards the brand, which in turn affects purchase intention ($\beta=.756$). This is in line with

established research (Hovland and Weiss, 1951; McGinnies and Ward, 1980) and also seems to hold true in the modern world's sea of information. Most recent studies in this field report trustworthiness to be most influential on credibility (Amos et al., 2008; Wang et al., 2017).

Attractiveness positively influences attitudes towards the brand ($\beta=.266$), rendering this construct a relevant one regarding the choice of a celebrity endorser. This result is in line with older research (Baker and Churchill, 1977; Kahle and Homer, 1985).

Expertise has positive effects on purchase intentions ($\beta=.255$) and therefore perceived expertise of an endorser can be reported as relevant and effective regarding testimonials depicting experts as endorsers.

Attitude towards the ad a positive effect on attitudes towards the brand ($\beta=.801$), which in turn affects purchase intentions. This result is no surprise and is in line with theory (e.g. TRA and TRB) and empirical evidence (Goldsmith et al., 2000; Wang et al., 2017).

Apart from one exception, all reported constructs have positive beta values. This exception is congruency, which has a negative effect on attitudes towards the brand and a negative effect on purchase intentions ($\beta=-.242$) as well as negatively influencing attitudes towards the ad ($\beta=-.191$). This exception is in line with more recent research on celebrity endorsement and the match-up-hypothesis (Dahlén et al., 2005, 2008; Törn, 2012) but not in line with (Forkan, 1980; Kamins, 1990). We argue that technology has led to a vast amount of information that is more available than ever, leading to an increase in information flooding and a battle for attention. Information overload as a concept has gained a lot of attention among researchers from different fields (Eppler, Martin J.; Mengis, 2004) and has led to researchers conducting studies examining different cultures, as this seems to be a widespread issue (Klausegger et al., 2007). Following this line of argumentation, a possible reasoning is that incongruence is able to gain people's attention in this vast amount of information whereas congruence may no longer have this capability. Hence, an incongruent choice within an endorsement strategy may lead to better results than a congruent one. Even though this study supports incongruence as a better option than a perfect match, there are still questions that arise regarding this effect, such as if this relationship is of a linear nature and if incongruence is generally better than congruence.

6. LIMITATIONS AND FURTHER RESEARCH

As this study contains student sample data, we report this as a possible limitation as results may vary depending on the target group to which the findings of this research are to be applied. Simultaneously, there is an opportunity for further research building on these results and replicating this study with a representative panel or conducting cross-cultural studies. Pornpitakpan (2004) strongly suggests taking a closer look at culture as a variable, as culture seems to play a great role regarding source credibility.

Furthermore, we would like to note that the purchase intention scale, even though it was exactly operationalized as in (Choi and Rifon, 2012), showed a low KMO value worthy of being mentioned as a limitation. A closer look at this aspect may be further research for methodological or scales development contributions.

We see a limitation in age, as elder participants may not give the same amount of attention regarding congruency (Choi and Rifon, 2012) and this could lead to different results. Although theory and evidence suggest strong support that intentions lead to behaviour, we mention the use of an online questionnaire and scales to measure purchase intentions instead of actual intentions as limitations and point researchers interested in following up on our results towards conducting field studies to replicate and verify the model and the results.

Further research may be conducted regarding the celebrity and expert testimonials used in this study as stimulus material. An interesting path of further research may lie in cross-cultural validation and verifying if the effects of these testimonials and product types differ over culture and age and the model is valid across cultures and age groups. Furthermore, a large range of products are available,

and if this model holds true for products other than those used in this study then this is a further aisle of research. As this study contributes to research regarding testimonials, we would like to direct attention to word of mouth, which can also be important regarding purchase intentions. Therefore, further research may want to add more variables to this integrated model, such as word of mouth, in addition to purchase intentions.

7. CONCLUSIONS AND IMPLICATIONS

The results of this study confirm models such as the source credibility model and source attractiveness and partly (regarding product fit) support the match-up-hypothesis.

Credibility turns out to be important, and attractiveness, expertise, and especially trustworthiness are important in a testimonial strategy. Trustworthiness should therefore be carefully analysed to obtain credible testimonials to induce positive effects on attitudes towards the ad, attitudes toward the brand and purchase intentions.

Product fit showed to be very important too, and endorsers should be carefully selected to fit the product that is to be advertised to create a successful testimonial strategy.

Contrary to the product fit finding, congruence had a negative effect on attitudes towards the ad and on purchase intentions. Therefore, we support recent research in this field (Dahlén et al., 2005, 2008; Törn, 2012) stating that a perfect match may not be the most suitable option when matching a celebrity with a product or brand for celebrity endorsement testimonials.

Attitudes towards the ad show a positive effect on attitudes towards the brand and on purchase intention. These results, as well as the conceptual model, show that these effects are of an indirect nature. The same goes for the effects of the credibility construct's attractiveness and trustworthiness. Expertise, on the other hand, has a direct effect on purchase intention. Because of this, and the fact that product fit and congruence play an important role, we suggest that testimonial strategies incorporating celebrity or expert endorsements be aware of indirect effects and campaign testing, for example by A/B testing or campaign testing with a small sample of the target group to be addressed, as different product, celebrity types or socioeconomic parameters, such as age, may lead to different results.

Furthermore, companies and marketing practitioners are well advised to keep a close eye on constructs like trustworthiness and credibility, as well as product fit, as these independent variables can be influenced to have positive effects on relevant dependent variables, such as purchase intention.

REFERENCES

- Ajzen, I. (1985), 'From Intentions to Actions: A Theory of Planned Behavior BT - Action Control: From Cognition to Behavior', in Kuhl, J. and Beckmann, J. (Eds.), Springer Berlin Heidelberg, Berlin, Heidelberg, pp. 11–39.
- Ajzen, I. (1991), 'The theory of planned behavior', *Organizational Behavior and Human Decision Processes*, Vol. 50 No. 2, pp. 179–211.
- Amos, C., Holmes, G. and Strutton, D. (2008), 'Exploring the relationship between celebrity endorser effects and advertising effectiveness', *International Journal of Advertising*, Vol. 27 No. 2, pp. 209–234.
- Appelbaum, R.L. and Anatol, K.W.E. (1973), 'Dimensions of source credibility: A test for reproducibility', *Speech Monographs*, Vol. 40 No. 3, pp. 231–237.
- Asch, S.E. (1946), 'Forming impressions of personality.', *The Journal of Abnormal and Social Psychology*, Vol. 41 No. 3, pp. 258–290.
- Baker, M.J. and Churchill, G.A. (1977), 'The Impact of Physically Attractive Models on Advertising Evaluations', *Journal of Marketing Research*, Vol. 14 No. 4, pp. 538–555.

- Bian, Q. and Forsythe, S. (2012), 'Purchase intention for luxury brands: A cross cultural comparison', *Journal of Business Research*, Elsevier B.V., Vol. 65 No. 10, pp. 1443–1451.
- Biswas, D., Biswas, A. and Das, N. (2006), 'The Differential Effects of Celebrity and Expert Endorsements on Consumer Risk Perceptions. The Role of Consumer Knowledge, Perceived Congruency, and Product Technology Orientation', *Journal of Advertising*, Vol. 35 No. 2, pp. 17–31.
- Bower, A.B. and Landreth, S. (2001), 'Is Beauty Best? Highly versus Normally Attractive Models in Advertising', *Journal of Advertising*, Vol. 30 No. 1, pp. 1–12.
- Bowers, J.W. and Phillips, W.A. (1967), 'A note on the generality of source-credibility scales', *Speech Monographs*, Vol. 34 No. 2, pp. 185–186.
- Brownlow, S. (1992), 'Seeing is believing: Facial appearance, credibility, and attitude change', *Journal of Nonverbal Behavior*, Vol. 16 No. 2, pp. 101–115.
- Bull, R. and Stevens, J. (1979), 'The effects of attractiveness of writer and penmanship on essay grades', *Journal of Occupational Psychology*, Vol. 52 No. 1, pp. 53–59.
- Chaiken, S. (1979), 'Communicator physical attractiveness and persuasion.', *Journal of Personality and Social Psychology*, Vol. 37 No. 8, pp. 1387–1397.
- Choi, S. and Rifon, N. (2012), 'It Is a Match: The impact of Congruence between Celebrity Image and Consumer Ideal Self on Endorsement Effectiveness', *Psychology and Marketing*, Vol. 29 No. 9, pp. 639–650.
- Clifford, M.M. and Walster, E. (1973), 'The Effect of Physical Attractiveness on Teacher Expectations', *Sociology of Education*, Vol. 46 No. 2, pp. 248–258.
- Dahlén, M., Lange, F., Sjödin, H. and Törn, F. (2005), 'Effects of Ad-Brand Incongruence', *Journal of Current Issues & Research in Advertising*, Vol. 27 No. 2, pp. 1–12.
- Dahlén, M., Rosengren, S., Törn, F. and Öhman, N. (2008), 'Could Placing Ads Wrong be Right? Advertising Effects of Thematic Incongruence', *Journal of Advertising*, Vol. 37 No. 3, pp. 57–67.
- Eppler, Martin J.; Mengis, J. (2004), 'The concept of information overload: a review of the literature from Organization Science, Accounting, MIS, and related disciplines', *The Information Society*, Vol. 20 No. 5, pp. 325–344.
- Erdogan, B.Z. (1999), 'Celebrity Endorsement: A Literature Review', *Journal of Marketing Management*, Vol. 15 No. 4, pp. 291–314.
- Fanderl, H.S. (2005), *Prominente in Der Werbung: Empirische Untersuchungen Zur Messung, Rezeption Und Wirkung Auf Basis Der Markenpersönlichkeit*, Deutscher Universitätsverlag, Wiesbaden.
- Feldman, R.H.L. (1984), 'The Influence of Communicator Characteristics on the Nutrition Attitudes and Behavior of High School Students', *Journal of School Health*, Vol. 54 No. 4, pp. 149–151.
- Fishbein, M. (1979), 'A theory of reasoned action: some applications and implications.', University of Nebraska Press.
- Fishbein, M. and Ajzen, J. (1975), 'Attitude-behavior relations: A theoretical analysis and review of empirical research.', *Psychological Bulletin*, Vol. 85 No. 5, pp. 725–737.
- Fiske, S.T., Cuddy, A.J.C., Glick, P. and Xu, J. (2002), 'A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition.', *Journal of Personality and Social Psychology*, Vol. 82 No. 6, pp. 878–902.
- Forkan, J. (1980), 'Product matchup key to effective star presentations', *Advertising Age*, Vol. 51 No. 6, p. 42.
- Friedman, H.H. and Friedman, L. (1979), 'Endorser effectiveness by product type', *Journal of Advertising Research*, Advertising Res Foundation, New York, Vol. 19 No. 5, pp. 63–71.

- Gierl, H. and Praxmarer, S. (2001), 'Die wahrgenommene Dynamik des Kommunikators und Einstellungen der Rezipienten', *Marketing ZFP*, Vol. 23 No. 4, pp. 236–252.
- Goldsmith, R.E., Lafferty, B.A. and Newell, S.J. (2000), 'The Impact of Corporate Credibility and Celebrity Credibility on Consumer Reaction to Advertisements and Brands.', *Journal of Advertising*, Vol. 29 No. 3, pp. 43–54.
- Gonçalves, G., Gomes, A., Ferrão, M.C., Parreira, T., dos Santos, J.V., Giger, J.-C. and Martins, A.T. (2014), 'Once Upon a Face: the Effect of Eye Size, Observer and Stimulus Gender on Impression Formation', *Current Psychology*, pp. 1–10.
- Harmon, R.R. and Kenneth, A.C. (1982), 'The Persuasive Effects of Source Credibility in Buy and Lease Situations', *Journal of Marketing Research*, Vol. 19 No. 2, pp. 255–260.
- Hartmann, P. and Apaolaza-Ibanez, V. (2012), 'Consumer attitude and purchase intention toward green energy brands: The roles of psychological benefits and environmental concern', *Journal of Business Research*, Elsevier Inc., Vol. 65 No. 9, pp. 1254–1263.
- Hemp, P. (2009), 'Death by Information Overload', *Harvard Business Review*, Boston, MA, September, pp. 83–98.
- Hovland, C.I. and Weiss, W. (1951), 'The Influence of Source Credibility on Communication Effectiveness', *Public Opinion Quarterly*, Vol. 15 No. 4, pp. 635–650.
- Kahle, L.R. and Homer, P.M. (1985), 'Physical Attractiveness of the Celebrity Endorser: A Social Adaptation Perspective', *Journal of Consumer Research*, Vol. 11 No. 4, pp. 954–961.
- Kamins, M.A. (1990), 'An Investigation into the "Match-up" Hypothesis in Celebrity Advertising: When Beauty May Be Only Skin Deep', *Journal of Advertising*, Vol. 19 No. 1, pp. 4–13.
- Kamins, M.A. and Gupta, K. (1994), 'Congruence between spokesperson and product type: A matchup hypothesis perspective', *Psychology & Marketing*, Vol. 11 No. 6, pp. 569–586.
- Klauegger, C., Sinkovics, R.R. and Zou, H. 'Joy'. (2007), 'Information overload: a cross-national investigation of influence factors and effects', *Marketing Intelligence & Planning*, Vol. 25 No. 7, pp. 691–718.
- Lee, J.-G. and Thorson, E. (2008), 'The Impact of Celebrity–Product Incongruence on the Effectiveness of Product Endorsement', *Journal of Advertising Research*, Vol. 48 No. 3, pp. 433–449.
- Lutz, R.J., MacKenzie, S.B. and Belch, G.E. (1983), 'Attitude toward the ad as a mediator of advertising effectiveness: Determinants and consequences', *ACR North American Advances*.
- Lynch, J. and Schuler, D. (1994), 'The matchup effect of spokesperson and product congruency: A schema theory interpretation', *Psychology and Marketing*, Vol. 11 No. 5, pp. 417–445.
- MacKenzie, S.B., Lutz, R.J. and Belch, G.E. (1986), 'The Role of Attitude toward the Ad as a Mediator of Advertising Effectiveness: A Test of Competing Explanations', *Journal of Marketing Research*, Vol. 23 No. 2, pp. 130–143.
- McCracken, G. (1989), 'Who is the Celebrity Endorser? Cultural Foundations of the Endorsement Process', *Journal of Consumer Research*, Vol. 16 No. 3, pp. 310–321.
- McGinnies, E. and Ward, C.D. (1980), 'Better Liked than Right', *Personality and Social Psychology Bulletin*, SAGE Publications Inc, Vol. 6 No. 3, pp. 467–472.
- McGuire, W.J. (1985), 'Attitudes and attitude change', in Lindzey, G. and Aronson, E. (Eds.), *The Handbook of Social Psychology*, 2nd ed., Erlbaum, Hillsdale, New Jersey, pp. 262–276.
- Misra, S. and Beatty, S.E. (1990), 'Celebrity spokesperson and brand congruence', *Journal of Business Research*, Vol. 21 No. 2, pp. 159–173.
- Murmann, F. (2008), *Celebrity-Testimonial Communication: Einsatzkriterien Und Auswahlmodelle Für Celebrity-Testimonials*, VDM Publishing, Saarbrücken.

- Nisbett, R.E. and Wilson, T.D. (1977), 'The halo effect: Evidence for unconscious alteration of judgments.', *Journal of Personality and Social Psychology*, Vol. 35 No. 4, pp. 250–256.
- Ohanian, R. (1990), 'Construction and Validation of a Scale to Measure Celebrity Endorsers' Perceived Expertise, Trustworthiness, and Attractiveness', *Journal of Advertising*, Vol. 19 No. 3, pp. 39–52.
- Pornpitakpan, C. (2004), 'The Persuasiveness of Source Credibility: A Critical Review of Five Decades' Evidence', *Journal of Applied Social Psychology*, Vol. 34 No. 2, pp. 243–281.
- Shah, S.S.H., Aziz, J., Jaffari, A.R., Waris, S., Ejaz, W., Fatima, M. and Sherazi, S.K. (2012), 'The Impact of Brands on Consumer Purchase Intentions', *Asian Journal of Business Management*, Vol. 4 No. 2, pp. 105–110.
- Spears, N. and Singh, S.N. (2004), 'Measuring attitude toward the brand and purchase intentions', *Journal of Current Issues and Research in Advertising*, Vol. 26 No. 2, pp. 53–66.
- Sternthal, B., Dholakia, R. and Leavitt, C. (1978), 'The Persuasive Effect of Source Credibility: Tests of Cognitive Response', *Journal of Consumer Research*, Vol. 4 No. 4, pp. 252–260.
- Teng, L., Laroche, M. and Zhu, H. (2007), 'The effects of multiple-ads and multiple-brands on consumer attitude and purchase behavior', *Journal of Consumer Marketing*, Vol. 24 No. 1, pp. 27–35.
- Till, B.D. and Busler, M. (1998), 'Matching products with endorsers: attractiveness versus expertise', *Journal of Consumer Marketing*, Vol. 15 No. 6, pp. 576–586.
- Till, B.D. and Busler, M. (2000), 'The Match-Up Hypothesis: Physical Attractiveness, Expertise, and the Role of Fit on Brand Attitude, Purchase Intent and Brand Beliefs', *Journal of Advertising*, Vol. 29 No. 3, pp. 1–13.
- Törn, F. (2012), 'Revisiting the Match-Up Hypothesis: Effects of Brand-Incongruent Celebrity Endorsements', *Journal of Current Issues & Research in Advertising*, Vol. 33 No. 1, pp. 20–36.
- Tripp, C., Jensen, T.D. and Carlson, L. (1994), 'The Effects of Multiple Product Endorsements by Celebrities on Consumers' Attitudes and Intentions', *Journal of Consumer Research*, Vol. 20 No. 4, pp. 535–547.
- Wang, S.W., Kao, G.H.-Y. and Ngamsiriudom, W. (2017), 'Consumers' attitude of endorser credibility, brand and intention with respect to celebrity endorsement of the airline sector', *Journal of Air Transport Management*, Vol. 60, pp. 10–17.
- Whitehead, J.L. (1968), 'Factors of source credibility', *Quarterly Journal of Speech*, Vol. 54 No. 1, pp. 59–63.
- Wu, S.-I. and Lo, C.-L. (2009), 'The influence of core-brand attitude and consumer perception on purchase intention towards extended product', *Asia Pacific Journal of Marketing and Logistics*, Vol. 21 No. 1, pp. 174–194.

A. APPENDIX



Figure 4. Portraits of tested celebrities in the pre test

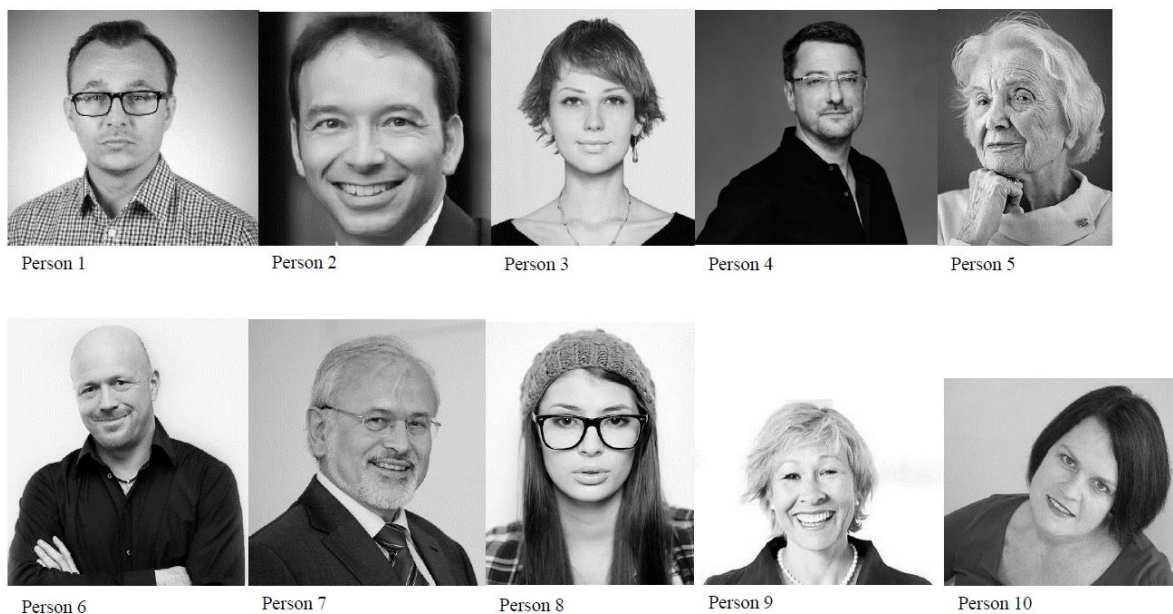


Figure 5. Portraits of experts tested in the pre test