A CONFIRMATORY FACTOR ANALYSIS OF THE SOURCE MODEL FOR CELEBRITY ENDORSEMENT

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ABSTRACT
Marketing managers nowadays use one of the most common advertising strategies to grab persons’ time in order to inform the remarkable features of their products: they use celebrities to endorse their products. Several researchers have studied the model of celebrity endorsement. One of the most important is source model, which covers source credibility model and source attractiveness model. This paper evaluated the source model of celebrity endorsement developed by Ohanian (1990) and make a generalization using different celebrity endorser, brand name, and respondents’ characteristics. The object of this research is Joshua Suherman, an Indonesian artist who advertises the “Nutrisari Rasa Jeruk”, an orange flavour powder beverage. The proposed model does not fit and after doing some iterations to remove insignificant attributes, the revised model indicated that the model does fit with high reliability for each dimension. Future study is needed to identify whether the results are consistent according to cross-country and -culture, as well as when it uses other celebrity endorser.

Keywords: Advertisement, celebrities, endorser, marketing, source model.
JEL Classification:

1. INTRODUCTION

In today’s highly competitive global market, it is vital for companies to get people’s attention with the purpose of promoting their products. As a consequence, everyday individuals are exposed to thousands of advertisements in magazines, newspapers, radios, televisions, and also in social media. Every single company with its unique brand is competing to snatch persons’ time in order to notify them the amazing and astonishing features of its products. One of the most popular advertising strategies is using celebrities to endorse the company’s brand.

Celebrities, which are defined by Young and Pinsky (2006) as individuals who have achieved a significant level of fame that makes them well-known in society, have emerged as a powerful force in 21st century life and occupy a pivotal position in contemporary culture (Koenig and Boyd, 2009; Lord and Putrevu, 2009). Consumers are likely to evaluate information from a communicator or celebrity, whom they have similar goals, interests or lifestyle with greater than someone they do not (Erdogan et al., 2001). Celebrities are also considered have an ability to transfer their image to a particular product that is being advertised (Wheeler, 2003). They are regarded as a direct product of the values of the society they live in, the importance that society places on sports and entertainment, the pervasive power of the media to influence public opinion, and the needs of the marketing industry.
It is believed that there is a convincing connection between the level of recognition accorded to a specific celebrity and those elements of society that the celebrity represents, see for example: Hsieh and Chang (2005), Lee et al. (2008), Veen (2008). The selling power of celebrities and their worth to the firms' products, either goods or services they endorsed, is a function of the level of appeal they have to specific markets. Because consumers identify the celebrities on many levels, marketers have an opportunity to link consumers to product quality and/or firms' reputation through celebrity endorsement (Englis and Solomon, 1996; Petty and D’Rozario, 2009) and gain leverage in specific markets (Tan and Ming, 2003) by conveying product imagery to consumers (Erdogan, 1999).

As a result, celebrity has been utilized as a promotional tools by private and public organizations to achieve their goals. Marketers believe that celebrity endorsement is recognized as a ubiquitous feature of marketing (McCracken, 1989). Celebrities nowadays are regarded more effective than other types of endorsers, such as “the professional expert”, “the company manager”, or “the typical consumer” (Friedman and Friedman, 1979). One-in-four advertisements use celebrity endorsement (MarketWatch, 2006). It represents approximately 20% of all television commercials feature a famous person and approximately 10% of total television advertising expenditures (Sherman, 1985). In 2003, Nike spent $US 1.44 billion on celebrity endorsers: Michael Jordan as a basketballer and Tiger Woods as a golfer. Gillette signed an endorsement deal with football celebrity David Beckham worth between $US 30 and $US 50 million. The number and value of celebrity endorsement contracts are recently getting higher, and these contracts constitute a major and growing portion of advertising budgets (McGill, 1989). Celebrity endorsement is acknowledged by marketers because it has an effect that influences the company's message, something that a company is trying to send from someone that the consumers feel a sense of similarity with.

There are several models of the celebrity endorsement which have been studied by numerous authors. The first model, the source credibility model and source attractiveness model, is categorized under the generic name of “source model”. The other models are product match up hypothesis and meaning transfer model (see Erdogan, 1999 for the review of the celebrity endorsement model). This paper examined the source model: source credibility and source attractiveness model since this model is broadly reviewed by several researchers, see for example: Hovland and Weiss (1951), Hovland et al. (1953), Kelman (1961), Dholakia and Stemthai (1977), McGuire (1985), Ohanian (1990), Solomon (1996), Shimp, (1997). Although the studies were designed to measure the same construct, there is no consistency among the authors as to the number and types of dimensions that source model comprises. This study tried to make a generalization about the dimensions and its associated attributes of source credibility model for the celebrity endorsement. The attributes which have been developed by Ohanian (1990) was used here and have been analysed using confirmatory factor analysis. An orange flavoured powder drink with brand name “Nutrisari Rasa Jeruk” has been chosen, which has gained popularity in Indonesia. It employed Joshua Suherman, a well-known actor, singer, and presenter, as a celebrity endorser for promoting its advertisement.

2. CELEBRITY ENDORSEMENT MODEL

Celebrity is defined by Belch and Belch (1995) as a person who can deliver objective information such as knowledge, skills, experience and trust to others, thus, celebrities are said to be credible source of information (Goldsmith et al., 2000). Endorsement, on the other hand, is a form of brand communication in which celebrities act as the brand’s spokespersons by extending their personalities and popularities in the field of the brand. A celebrity endorser could be assumed to be someone who is well-known, popular, famous, and enjoy public recognition who uses this recognition on behalf of a consumer good by appearing with it in an advertisement (McCracken, 1989). Companies use celebrity endorsers for the hope that the endorsers, i.e. the celebrities, can boost the company marketing effectiveness for a long period of time (Belch and Belch, 2001).

In the broad literature of the celebrity endorsement model, there are three models which are eminent known by the researchers. The first, namely the source model, comprises of the source credibility and source attractiveness model. This model basically inform and reflect research of the social influence theory/source effect theory which argues that various characteristics of a perceived communication source may have a beneficial effect on message receptivity (Kelman, 1961; Meenaghan, 1995). It has been applied to the celebrity endorsement process although they were originally developed for the study of communication. The other
models are product match up hypothesis and meaning transfer model (Forkan, 1980; Kamins, 1990; Misra, 1990). These models fundamentally inform and reflect research on the social influence theory/source effect theory which contends that various characteristics of a perceived communication source may have a beneficial effect on message receptivity. In this paper, only the source model of the celebrity endorsement has been further analysed.

2.1. The Source Credibility Model

Source credibility is a term commonly used to imply a communicator’s positive characteristics that affect the receiver's acceptance of a message (Ohanian, 1990). The source credibility model explains that the usefulness of a message delivered by the celebrities depends on the degree of expertise and trustworthiness (Hovland et al., 1953; Dholakia and Stemthal, 1977; Ratneswar and Chaiken, 1991; Solomon, 1996). Information from celebrities can influence people's attitudes, beliefs, opinions, and/or their behaviour through a process known as internalisation, which arises when receivers, i.e. the consumers, accept a source stimulus in terms of their personal attitude and value structures (Erdogan, 1999). Further, if people perceive the celebrity endorser as expert and trustworthy on such products then there are possibilities that these people, or act as potential consumers might be “real” consumers (Friedman and Friedman, 1979; Till and Bulser, 1998; Lafferty and Goldsmith, 1999; Goldsmith et al., 2000).

Friedman and Friedman (1979) stated that trustworthiness is the major determinant of source credibility. It refers to the honesty, integrity, and believability of an endorser (Erdogan, 1999); it is the degree of confidence in the communicator’s intent to communicate the assertions he considers most valid (Hovland et al., 1953). As a result, a company capitalise it by choosing endorsers who are widely considered as honest, faithful, and dependable (Shimp, 1997). However, Smith (1973) argued that consumers view untrustworthy celebrity endorsers, regardless of their other qualities, as questionable message sources. Trustworthiness also can be attained by using the celebrity who is closely associated with the brand (Holloway and Robinson, 1995). Nevertheless, in some cases it happens that the celebrities do not use the products, it is termed as the “credibility gap”, as the lack of credibility aggravated by not using the brand, but doing endorsement (Solomon et al., 1999).

Expertise as the second dimension is defined as the extent to which a communicator is perceived to be a source of valid assertions (Hovland et al., 1953). This dimension is also referred to as authoritativeness (McCroskey, 1966), competence (Whitehead, 1968), expertness (Appilbaum and Anatol, 1972), or qualification (Berlo et al., 1969). It refers to the knowledge, experience or skills possessed by an endorser. It does not really matter whether an endorser is an expert; all that matters is how the target audiences perceive the endorser (Hovland et al., 1953; Ohanian, 1990). A celebrity that is considered as more expert has been found to be more persuasive (Aaker and Myers, 1987) and to generate more intentions to buy the brand (Ohanian, 1990). On the other hand, Speck et al. (1988) found that expert celebrities produced higher recall of product information than non-expert celebrities; but, the difference was not statistically significant.

2.2. The Source Attractiveness Model

Attractiveness is considered as an important cue in an individual’s initial judgment of another person (Baker and Churchill, 1977; Chaiken, 1979; Joseph, 1982; Kahle and Homer, 1985; Mills and Aronson, 1965; Widgery and Ruch, 1981; Debevec and Kernan, 1984). Advertisers should choose the endorsers on the basis of their attractiveness in order to gain their status and physical appeal (Singer, 1983). Researches have shown that physically attractive communicators are more successful at changing beliefs (Baker and Churchill, 1977; Chaiken, 1979; Debevec and Kernan, 1984) and generating purchase intentions (Friedman and Friedman, 1979; Petroshius and Crocker, 1989; Petty and Cacioppo, 1980) than their unattractive colleagues.

Attractiveness does not mean merely physical attraction, but it comprises a number of attributes of the celebrity endorser that consumers might perceives, such as intellectual skills, personality properties, lifestyles or athletic process (Erdogan, 1999). On the front of gender of the celebrity endorsers, there are different effect on the consumers that has been studied: attractive female celebrities shaped greater attitudes than attractive male celebrities across both genders, particularly among the male Debevec and Kernan, 1984). On the other
hand Caballero et al. (1989) argued that male consumers were found to have superior intentions to buy from male celebrity endorsers and female consumers embrace more intentions to purchase from the same gender endorsers. Further stated by (Erdogan, 1999) that there are two ways to upsurge behavioural intentions to endorsed products: choosing attractive celebrities whose images match product image with target audiences; and/or delivering messages in a two-sided format where endorsers states both negative and positive attributes of a brand.

3. CONCEPTUAL MODEL AND DATA COLLECTION

Several researchers have identified numerous dimensions that determine the level of customer belief in celebrity endorsement, including: attractiveness, trustworthiness, expertise, appearance, personality, private life management, relationship, competency, likeability, identification, and familiarity (Ohanian, 1990; Amos et al., 2008; Lord and Putrevu, 2009; Han and Ki, 2010). In this research, three dimensions: attractiveness, trustworthiness, and expertise by Ohanian (1990) which are broadly used in the several researches will be used to explain the celebrity endorsement.
The first dimension is attractiveness which can be labelled as the sum of a celebrity’s physical appearance, dress and accessories, beauty, elegance, sexual appeal, manners, and etiquette (Amos et al., 2008; Han and Ki, 2010; Magnini et al., 2010). The attractiveness scale consists of the semantic differentials of unattractive/attractive, not classy/classy, ugly/beautiful (or handsome), plain/elegant, and not sexy/sexy. The second is trustworthiness, which refers to the degree to which the audience perceives that the celebrity is able to convey a sense of integrity, honesty, and believability through the medium of advertising (Tripp et al., 1994). It is measured through not dependable/ dependable, dishonest/ honest, unreliable/reliable, insincere/ sincere, and untrustworthy/ trustworthy. The last dimension is expertise, which is defined as the extent to which an individual’s skill or experience, knowledge, or expertise is sought by others to assist in decision making (Amos et al., 2008; Lord and Putrevu, 2009; Magnini et al., 2008). It is associated with competency, qualification, expertness, expert ability, mastery, and authoritativeness (Han and Ki, 2010; Magnini et al., 2010). The semantic differentials for the expertise scale include not expert/expert, inexperienced/ experienced, unknowledgeable/ knowledgeable, unqualified/ qualified, and unskilled/skilled. The conceptual model is depicted in Figure 1.

“Nutrisari Rasa Jeruk” was chosen as the object for this research because it always uses celebrity endorsement for promoting its advertisement. It is a powder drink that contains fruits essence. It is produced by Indofood Indonesia and it was first launched in 1979. The famous fruit essence is orange. The celebrity who endorsed this product is Joshua Suherman, who is best known in Indonesia as a singer, actor and presenter. He started to be a singer since he was child. Through his first album “Cit Cit Cuit”, he became famous and developed his passion to be an actor and a presenter.

A confirmatory factor analysis is used here to evaluate how accurate and consistent aforementioned attributes. The surveys were administered to the consumers of “Nutrisari Rasa Jeruk”. Three hundred and twenty nine respondents participated in this research. Potential respondents were first approached and asked if they wished to participate in the survey. All items were measured on a 5-point Likert-type scale where 1 is indicated strongly disagree, 4 is disagree, 3 is neutral, 2 is agree, and 5 is strongly agree.

4. RESULT AND DISCUSSION

The study investigated the dimensions and its attributes for the source model of the celebrity endorsement. Before doing such analysis, the reliability test was conducted to check whether or not the respondents’ scores on any one dimension tend to be related to their scores on the others. The Cronbach’s alpha by Cronbach (1951) was used as a lower bound to estimate the reliability of a psychometric test. It ranges between 0 and 1, where score 0 denotes there is no internal reliability and score 1 denotes perfect internal reliability. Nunnally (1994) suggested that the value of Cronbach’s alpha should be greater than 0.7 to assure the dimensions are reliable. It means that any dimension which have a Cronbach’s alpha less than 0.7 has to be removed from the further analysis. The Cronbach’s alpha for attractiveness dimension is only 0.584726, while for trustworthiness dimension is 0.749, and for expertise is 0.798. It seems that all dimensions have high reliability and indicated that the questionnaire being utilized is reliable. Further, the value of χ2 is 132,002 while the p-value is 0.001 or less than significant value α of 0.005. It indicates that the model does not fit. The Cronbach’s alpha and factor loadings for each attribute can be seen in Table 1.

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Attributes</th>
<th>Factor Loading</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attractiveness</td>
<td>unattractive/attractive</td>
<td>0.262</td>
<td>0.584</td>
</tr>
<tr>
<td></td>
<td>not classy/classy</td>
<td>0.735</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ugly/handsome</td>
<td>0.240</td>
<td></td>
</tr>
<tr>
<td></td>
<td>plain/elegant</td>
<td>0.883</td>
<td></td>
</tr>
<tr>
<td></td>
<td>not sexy/ sexy</td>
<td>0.302</td>
<td></td>
</tr>
<tr>
<td>Trustworthiness</td>
<td>not dependable/ dependable</td>
<td>0.739</td>
<td>0.749</td>
</tr>
<tr>
<td></td>
<td>dishonest/honest</td>
<td>0.653</td>
<td></td>
</tr>
</tbody>
</table>
The next step is to revise the model with removing the attributes that have less significant with the dimensions. For example within the dimension attractiveness, the least significant attributes is the third attribute, i.e. ugly/handsome with factor loading of 0.240. After some iterations, the indicators which have been removed are unattractive/attractive, ugly/handsome, and not sexy/sex for attractiveness; unreliable/reliable and untrustworthy/trustworthy for trustworthiness; and unknowledgeable/knowledgeable for expertise.

Factor loadings and Cronbach’s alpha of revised model shown in Table 2. The Cronbach’s alphas suggest that all dimensions have high reliability. All attributes also have high contribution to corresponding dimension. The factor loading of attractiveness are: not classy/classy with 0.965, while plain/elegant is 0.673; for the trustworthiness: factor loading of not dependable/dependable is 0.791, dishonest/honest is 0.549 (the lowest one), and insincere/sincere is 0.758. The last dimension is expertise with attributes: not expert/expert is 0.762, inexperienced/experienced is 0.682, unqualified/qualified is 0.752, and unskilled/skilled is 0.594. The value of \( \chi^2 \) is 27,546 while the p-value is 0.280 or more than significant level \( \alpha \) of 0.005. It indicates that the model does fit. The root mean square of approximation is 0.022, less than the 0.08, shows that the model can be used. The revised model can be seen in Figure 2.

### Table 2: Factor Loadings and Cronbach’s Alphas of Revised Model

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Attributes</th>
<th>Factor Loading</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attractiveness</td>
<td>not classy/classy</td>
<td>0.965</td>
<td>0.788</td>
</tr>
<tr>
<td></td>
<td>plain/elegant</td>
<td>0.673</td>
<td></td>
</tr>
<tr>
<td>Trustworthiness</td>
<td>not dependable/dependable</td>
<td>0.791</td>
<td>0.744</td>
</tr>
<tr>
<td></td>
<td>dishonest/honest</td>
<td>0.549</td>
<td></td>
</tr>
<tr>
<td></td>
<td>insincere/sincere</td>
<td>0.758</td>
<td></td>
</tr>
<tr>
<td>Expertise</td>
<td>not expert/expert</td>
<td>0.762</td>
<td>0.782</td>
</tr>
<tr>
<td></td>
<td>inexperienced/experienced</td>
<td>0.682</td>
<td></td>
</tr>
<tr>
<td></td>
<td>unqualified/qualified</td>
<td>0.752</td>
<td></td>
</tr>
<tr>
<td></td>
<td>unskilled/skilled</td>
<td>0.594</td>
<td></td>
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</table>
The respondents at the first time might think that Joshua Suherman is not a good-looking guy and does not have a charming face. The reason why “Nutri Sari Rasa Jeruk” appointed Joshua Suherman as a celebrity endorser although he has low attractiveness feature is since he is considered have a close connection with the children, who are the main consumers of “Nutri Sari Rasa Jeruk.” Joshua Suherman who once was a singer in his childhood is regarded able to represent the children and have an innocent face, which is regarded as a symbol of children. Also because of this reason, the respondents also might think that he is not a knowledgeable portrait.

5. CONCLUSION

The aim of this research is to find the fit model of source model for celebrity endorsement in the real case in industry and also the most significant attributes for all of dimension of celebrity endorsement. In this study, it is used a real case of beverage product with the celebrity endorsed who has advertised this product for a long time. This research used confirmatory factor analysis to evaluate the model. Due to its probability of χ² which is below the significant value α of 0.05, the first proposed model indicates that the model does not fit. As a consequence, some attributes have low value of factor loadings have been eliminated. It is caused by the inappropriate conditions in the real case. When those indicators have been eliminated, the model does fit, indicates with the probability of χ² is more than significant level α of 0.05. The attributes which are reflected the celebrity endorsement construct are: classy and elegant for attractiveness dimension; dependable, honest, and sincere for trustworthiness dimension; expert, experienced, qualified, and skilled for expertise dimension.

There are some limitation that should be brought to the intention of the readers. The current study is conducted using consumer responses from Indonesia that limiting the generalizability of the findings. Then, the research depends on celebrity endorse who selected in this research, it means another results can be found in another subject of the celebrity endorse. Future research is needed to examine other various groups and compare whether the results are consistent according cross-country, cross-city, and cross-culture. Thus, a future study is needed to identify whether the results are consistent when it uses other celebrity endorser.
REFERENCES


