# Co-branding with mobile games in China: How fantasy figures function as marketing tools

ZiWei, Li Master Thesis Communication studies



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# Acknowledgement

With this master thesis, I completed my master Communication Studies at the University of Twente. Two years ago, achieving a master degree was a dream for me when I decided to quit a job in China and then prepared to study abroad. I can still remembered how excited I was at the moment of receiving the pre-master offer from the faculty. Studying at the UT was the best and the most fruitful time in my life as it not only brought me academic knowledge but also gave me precious memory of living within another culture.

I would like to specially thank my first supervisor Professor Menno de Jong for all his encouraging support and valuable suggestion during the process of my master thesis. He helped me build up my master thesis step-by-step. From the very beginning of generating the idea to the part of analyzing results, he always encouraged me and motivated me to do better. In addition, I really appreciate his being flexible on scheduling meetings with me, which helped get the master thesis done in time.

I would also like to thank my second supervisor Dr. Joyce Karreman for her useful feedback, contribution and co-reading this thesis. With her feedback on writing, I was aware of where my writing problems were and then I could fix the problems efficiently.

Finally, I would like to thank my family for always supporting me. Especially, they worked hard everyday so as to provide enough money for my studying and living in the Netherlands. Their love was the greatest inspiration for me.

I hope you will enjoy reading my thesis about the influence of attractiveness of fantasy figures and congruence of fantasy figures with brands on consumer's responses.

Zi Wei,Li January 2018

#### **Abstract**

**Introduction**- Because of the prosperous development of mobile games, companies co-brand with mobile games by utilizing fantasy figures as their endorsers. This study aims to understand how the attractiveness of fantasy figures and the congruence of fantasy figures with brands influence consumers' attitudes and behaviors.

**Methodology**-The study used a 2 × 2 × 2 experimental design. Two levels of attractiveness (high/low) and congruence (high/low) were manipulated with two product types (a Lenovo computer and a Red Bull drink), which were combined as eight experimental conditions. In the research model, attractiveness and congruence (the independent variables) were assumed to directly influence purchase intention (the dependent variable). Attitude towards advertisements was expected to be a mediator between the independent and dependent variables.

**Results**- In this study, there were no main effects of attractiveness on attitude towards advertisements and purchase intention. Attractiveness also had a very weak correlation with attitude towards advertisements and purchase intention. In contrast, congruence was found to have a main effect on attitude towards advertisements in the Red Bull drink group. In addition, congruence tended to have a significant influence on purchase intention. Furthermore, attitude towards advertisements was confirmed as a mediator between congruence and purchase intention.

**Conclusions**- Congruence, rather than attractiveness, was the factor affecting attitude towards advertisements. Attitude towards advertisements was the mediator between congruence and purchase intention.

Keywords: mobile games, fantasy figures, congruence, attractiveness, purchase intention, attitude towards advertisements, mobile marketing

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#### 1. Introduction

Mobile games have been booming in recent years. Both the number of mobile game players and the revenue in the game industry indicate the fast growth of mobile games. First, there were more than 500 million gamers globally in 2013 and more than 2.2 billion mobile gamers in 2016 (Nouch, 2013; Newzoo, 2017). The number of mobile gamers in 2016 was four times higher than three years before.

Second, the contribution of mobile games to the revenue of the whole video game industry was 23 percent (\$17.6 billion) in 2013 (Newzoo.com, 2017). It was predicted to reach 34% (\$35.4 billion) in 2017. Consequently, the revenue mobile games generated in 2006 was \$38.6 billion, and it was \$46.1 billion globally in 2017 (Newzoo.com, 2017). The mobile game industry developed faster than expected.

The increasing popularity of mobile games provide new possibilities for marketing. A great diversity of players are possibly potential consumers of brands. Potential consumers can be found at all ages and in different social classes (Lenhart, Jones, & Macigill, 2008). The large majority of mobile game players are over the age of 18, and 39% of them are over the age of 36 in the U.S.A (CNBC.com, 2015). Approximately 49% of game players spent money buying mobile games (CNBC.com, 2015), which means that those mobile-game players had economic capability.

Because of the popularity of mobile games, brands have started to seek cooperation with mobile games for promotions. The co-branding between brands and games is not new. In the past, brands co-branded with video games before mobile games debuted. For instance, Coca Cola co-branded with the video game "World of Warcraft". Coca Cola presented the fantasy figures from "World of Warcraft" on its products' bottles in order to capitalize on the popularity of "World of Warcraft".

Currently, mobile games have become another possible marketing partner for brands. The most recent example in China of co-branding between mobile games and brands is the co-branding of Honour of Kings (English version: Arena of Valor), the most popular mobile game in China, with several brands, such as BMW, Coca Cola, and Pizza Hut. Those brands combined fantasy figures from Honour of Kings with their brand image elements.

In cases of co-branding among mobile games and brands, brands often present familiar fantasy figures from games in their advertisements. To some degree, fantasy figures thus function as endorsers of the brands.

In the process of endorsement, the attractiveness of the endorsers is an essential factor for the effectiveness for the advertisements. Traditionally, celebrities have attracted consumers' attention and shaped positive evaluations of the products/brands using

their own attractiveness (Erdogan, 1999). Attractiveness refers to how appealing endorsers in an advertisement are to the consumer (Choi & Rifon, 2012). If endorsers have a high level of attractiveness, they can be more persuasive (McGuire, 1985). Previous studies have found that attractiveness is positively related to consumers' attitude towards advertisements and, most importantly, purchase intention (e.g., Erdogan, 1999; Chaiken, 1979; Joseph, 1982; Pornpitakpan, 2004; Petroshius & Crocker, 1989).

Congruence is another key factor in the co-branding between fantasy figures and products/brands. Congruence refers to the degree of matching between a brand and another object (e.g., another brand, an image, or an event) (Fleck, Korchia &Le, 2012). Successful co-branding often corresponds to a high congruence (Lafferty, Goldsmith & Hult, 2004; Simonin & Rut, 1998). Specifically, congruence is positively related to the attitude towards advertisements and purchase intention (e.g., Kahle & Homer, 1985; Kamins, 1990; Choi & Rifon, 2012; Kamins & Gupta, 1994).

Based on the discussion above, the main research question is formulated as follows:

RQ: To what extent do the attractiveness of fantasy figures and the congruence of fantasy figures with brands influence consumer attitudes?

#### 2. Theoretical framework

Those examples about the appearance of fantasy figures with products/brands show that fantasy figures may be considered endorsers for brands. The attractiveness of fantasy figures and the congruence of fantasy figures with brands are assumed to be associated with the effectiveness of the advertisements.

This section focuses on introducing relevant concepts, such as co-branding, congruence and attractiveness. The relationships among those relevant concepts will be explained as well.

#### 2.1. Co-branding

Before the explanation of these two attributes, it is necessary to introduce co-branding. Broadly speaking, co-branding is defined as the collaboration between brands or an alliance of two or more brands. With co-branding, brands often present their name or brand images together in marketing contexts, such as in advertisements (Geylani, Inman & Hofstede, 2008; Grossman, 1997; Mazodier & Merunka, 2014; Leuthesser, Kohli & Suri, 2003). When brands are strongly linked to each other, with the strategic purpose of achieving a common goal, co-branding exists (Xing & Chalip, 2006).

The main purpose of co-branding is to enhance consumers' perception of brands through cooperation between brands (Bengtsson & Servais, 2005). Brands exchange

attributes with each other in co-branding (Xing & Chalip, 2006). This transfer is beneficial to achieve effective recognition and improve the evaluation of partner brands among consumers (Chang, 2008). For instance, when a well-known brand cooperates with a small brand, consumers will possibly evaluate the small brand positively because they recognize the well-known brand. This situation can be commonly found in cases of international brands trying to enter local markets (Abratt & Motlana, 2002; Chang, 2008). This explanation also applies to the co-branding between fantasy figures and brands. When Honour of Kings co-branded with the international Pizza Hut brand, the local reputation and the more familiar brand recognition of Honour of Kings became profitable for promoting Pizza Hut.

#### 2.2. Attractiveness

Attractiveness refers to how adorable or physically attractive an endorser is to a consumer (Choi & Rifon, 2012). Attractiveness was first identified from source credibility by McGuire (1985) who assumed that attractiveness was another essential factor in the process of influencing consumers. Ohanian (1991) added that attractiveness was the best reference for consumers. In reality, advertisers would tend to choose endorsers based on their attractiveness as consumers like to see attractive endorsers in advertisements (Chaiken, 1979; Kahle and Homer, 1985).

Ohannian (1990) constructed several items to measure the attractiveness of normal endorsers. They were attractive/unattractive, classy/not classy, beautiful/ugly, elegant/plain, and sexy/not sexy. These items were used to describe the degree of physical attractiveness of an endorser. Since fantasy figures are fictional images, and they obviously do not have the same physical attractiveness as human beings, this scale is not suitable for direct use to measure the attractiveness of fantasy figures.

Another explanation from Ohanian (1990) makes more sense for measuring the attractiveness of fantasy figures in this study. Ohanian contended that the effectiveness of advertisements depends on three dimensions: familiarity, likability, and similarity. Familiarity refers to how much knowledge consumers have about endorsers; likability refers to how much consumers like endorsers; similarity refers to how much consumers consider endorsers to be similar to themselves. Among these dimensions, it seems difficult to measure similarity between fantasy figures and consumers. Therefore, this study mainly measures attractiveness based on the two dimensions of likability and familiarity.

#### 2.2.1. Attractiveness and attitude towards advertisements

The use of attractive endorsers in advertisements could lead to more positive attitude towards advertisements. This belief was proposed first by Hovland, Janis, and Kelley's (1953) study, which stated that who endorsers are is as important as what

they say. McGuire (1985) also argued that endorsers could be persuasive sources if they have a high level of attractiveness.

Yoon, Kim and Kim (1998) examined which dimensions of source credibility (attractiveness, trustworthiness, and expertise) especially affect attitude towards advertisements. Attractiveness was found to be the most important dimension influencing attitude towards advertisements. This finding corresponds to Chaiken's (1979) and Joseph's (1982) studies, which state that attractive endorsers are more capable of shaping positive evaluations of advertisements. Similarly, Petroshius and Crocker (1989) found that attractiveness plays an important role in affecting consumers' perceptions of advertisements. Erdogan (1999) summarized the previous literature stating that attractiveness is positively related to attitude towards advertisements.

Consumers prefer to see attractive endorsers rather than unattractive endorsers in advertisements (Chaiken, 1979; Kahle and Homer, 1985). It is conceivable that a consumer will generate more positive feeling by seeing attractive endorsers in advertisements. If an attractive fantasy figure is endorsing a product/brand in an advertisement, consumers might also produce positive feelings towards the advertisement. Thus, the following hypothesis is stated:

H1a: The attractiveness of fantasy figures is positively related to attitude towards advertisements.

# 2.2.2. Attractiveness and purchase intention

Ohanian (1991) claimed that the attractiveness of endorsers does not have effect on purchase intention. Ohanian argued that most endorsers in advertisements are attractive, so this factor will not determine purchase intention. Nevertheless, Pornpitakpan's (2004) study found that attractiveness positively influences purchase intention. Pornpitakpan replicated Ohanian's study by surveying 880 Singaporean undergraduates and determined that attractiveness had a main effect on purchase intentions. Pornpitakpan concluded that attractiveness should be taken into account when determining endorsers' influence on purchase intention because different endorsers have different types and levels of attractiveness, and consumers will pay attention to attractiveness. In addition, Kahel and Homer (1985) determined that consumers had higher purchase intentions when attractive celebrities appeared in a magazine advertisement. Similarly, Petroshius and Crocker's (1989), Patze's (1983), and Guido and Peluso's (2009) studies found that attractive models in advertisements would positively enhance purchase intention. Based on the empirical research above, the following hypothesis is stated:

*H1b:* The attractiveness of fantasy figures is positively related to purchase intention.

# 2.3. Congruence

Congruence is particularly used in co-branding and endorsements. Congruence refers to "the fit between a brand and another entity" (Fleck, Korchia & Le, 2012). The entity could be another brand, an event, or an endorser. In many advertisements, an endorser appears with a product/brand. Consumers implicitly judge whether the endorser is suitable to speak for the product/brand and whether the characteristics of the endorser are sufficiently well-matched with the product/brand. If a match is observed by consumers, congruence exists between the endorser and the product/brand.

Congruence mainly comprises two aspects: relevance and expectations (Heckler & Childers, 1992; Fleck, Korchia & Le, 2012). Relevancy reflects to what extent endorsers are related to a product or brand they stand for. If endorsers have some well-known characteristics (e.g., personality or hobbies) that are connected to the products/brands, consumers see the endorsers' relevance, which means that congruence exists. For instance, a movie star who is fond of racing and participates in racing movies would be a logical and reasonable spokesperson for a car brand. Expectations refers to how much an endorser is predictable as a spokesperson for a product or a brand. For instance, a beautiful celebrity who is wearing an elegant dress in an advertisement would be expected to speak for related products, such as cosmetics and perfume. The congruence would probably be lower if she actually recommended a sports product because this would be outside of consumers' expectations. In this study, fantasy figures are to be grouped with products/brands, and their congruence is examined based on these two main aspects.

#### 2.3.1. Congruence and attitude towards advertisements

Few studies in the literature have directly examined the relationship between congruence and attitude towards advertisements. Based on the match-up hypothesis, which was proposed by Kahle and Homer (1985), advertisements would be effective when an attractive endorser is matched up with the right product/brand. Attitude towards advertisements was one of the sub-constructs of the effectiveness of advertisements. Moreover, Choi and Rifon (2012) conducted a study exploring the relationship between two types of congruence (celebrity/consumer congruence and celebrity/product congruence) and attitude towards advertisements. In their findings, Choi and Rifon provided statistical evidence that congruence is positively and directly related to attitude towards advertisements.

If a fantasy figure becomes an endorser in an advertisement and congruence exists between the fantasy figure and the product/brand, attitude towards advertisements also might be influenced by the congruence. Based on the empirical research above, the following hypothesis is stated:

H2a: The congruence between fantasy figures and brands is positively related to attitude towards advertisements.

# 2.3.2. Congruence and purchase intention

Several studies suggest that the degree of congruence plays an important role in the effectiveness of co-branding (Lafferty, Goldsmith & Hult, 2004; Simonin & Rut, 1998). If high congruence exists between two brands, the partnership between brands can be beneficial (Dickinson & Heath, 2006; Simonin & Ruth, 1998). The explanation is that high congruence in co-branding results in information about the brands that is logical and easily processed by consumers (Llicic & Webster, 2013).

Earlier research about the influence of congruence on purchase intention was conducted by Kahle and Homer (1985). Their experiment testing the "match-up hypothesis" highlighted purchase intention in particular. Kahle and Homer's results showed that purchase intention was higher where there was congruence between an endorser and a product. The congruence in their study specifically referred to situation in which an attractive endorser matched up with a product (a razor). Kamins and Gupta (1994) conducted a similar experiment to investigate the match-up hypothesis. In their experiment, congruence was operationalized more broadly, referring to the congruence between a celebrity and a product based on observation. Kamins and Gupta found that congruence could enhance endorsers' credibility and, more importantly, purchase intention. Similarly, Paul and Bhakar (2017) examined the relationship among the congruence of the endorser/product, brand attitudes and purchase intention in India and found that the congruence of the endorser/product in advertisements both directly and indirectly influences purchase intention.

Based on the empirical research above, the following hypothesis is formulated: *H2b: The congruence between fantasy figures and brands is positively related to purchase intention.* 

#### 2.4. Attitude towards advertisements and purchase intention

As mentioned above, the main purpose of co-branding is to improve consumers' evaluation of products/brands. This study mainly focuses on two types of consumer attitudes: attitude towards advertisements and purchase intention.

#### 2.4.1. Attitude towards advertisements

Attitude is defined as individuals' evaluation of other objects or activities with some degree of favour or disfavour (Eagly & Chaiken, 2007). Specifically, attitude towards advertisements refers to individuals' evaluation of advertisements (Spears & Singh, 2004), which reflects how consumers feel about advertising generally (Larkin, 1977;

Muehling, 1987; Pollay & Mittal, 1993; Shavitt et al., 1998). People produce overall favourable or unfavourable feelings when they are exposed to advertising stimuli (Krugman, Bauer & Greyser, 1969).

#### 2.4.2. Purchase intention

Purchase intention refers to consumers' motivation to buy products (Ling, Chai, & Piew, 2010; Rezvani et al., 2012). Purchase intention represents the possibility that consumers are willing to buy a product (Wu, Yeh, & Hsiao, 2011). When an individual is said to have purchase intention, he/she plans to make an effort to purchase products (Spears & Singh, 2004). Therefore, it is a prior sign of actual purchasing behaviours (Dodds, Monroe, & Grewal, 1991).

#### 2.4.3. Attitude towards advertisements as a mediator

Based on various advertising studies, Singh and Spears (2004) elaborated a model to present the relationship between attitude towards advertisements and purchase intention. In the model, attitude towards advertisements first influenced attitude towards brands and then purchase intention, which indicated that attitude towards advertisements had a causal link to purchase intention.

Cox and Locander (1987) claimed that attitude towards advertisements not only directly influences attitude towards brands but also purchase intention in both familiar and unfamiliar product tests. Purvis (1997) also assumed a direct link in the process of measuring advertising effectiveness.

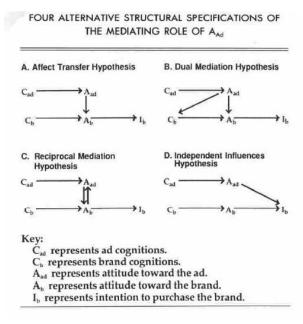


Figure 1. Four causal models for presenting attitude towards advertisements and purchase intention (Mackenzie, Lutz, & Belch, 1986).

Furthermore, Mackenzie, Lutz and Belch (1986) identified four causal models (see Figure 1 above): the affect transfer hypothesis (ATH), the dual mediation hypothesis (DMH), the independent influences hypothesis (IIH), and the reciprocal mediation hypothesis (RMH). Lutz and Belch claimed that the most common part for the four models was an indirect causal relationship between attitude towards advertisements and purchase intention. They conducted a study to investigate the four models. The results confirmed the dual mediation hypothesis, which proposed that attitude towards advertisements was a mediator between congruence (advertisement cognition and brand cognition) and purchase intention.

Based on the literature above, attitude towards advertisements can possibly directly or indirectly influence purchase intention. In particular, attitude towards advertisements is often considered a mediator between independent variables and dependent variables in the literature mentioned above. Using with the hypothesis in this study that congruence and attractiveness are assumed to be related to attitude towards advertisements and purchase intention, it is reasonable to assume that attitude towards advertisements can have a mediating effect between the independent variables (congruence and attractiveness) and dependent variable (purchase intention).

Thus, the following hypothesis is formulated:

H3: Attitude towards advertisements is a mediator between the independent variables (attractiveness and congruence) and purchase intention.

#### 2.5. Research model

Based on the literature above, attractiveness and congruence are considered independent variables and purchase intention is the dependent variable. Attitude towards advertisements is assumed to be the mediator. The possible relations between variables are demonstrated in the research model; see Figure 2 below.

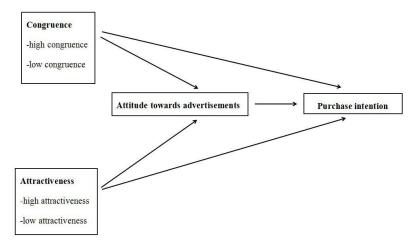


Figure 2. Research model.

# 3. Methodology

The purpose of this study was to investigate to what extent fantasy figures from mobile games have an influence on consumer responses. Specifically, the method intended to explore how the attractiveness of fantasy figures and the congruence between fantasy figures and brands influence attitude towards advertisements and purchase intention. The relationships among the variables presented in the research model were examined by an experimental method.

In this study, the mobile game Honour of Kings, which people are extremely familiar with in mainland China, was chosen for the experiment. Honour of Kings, which was launched in China in 2015, has gained more than 200 million users and was the highest-grossing mobile game on both Android and Apple IOS platforms in China in 2017 (Li, 2017). Honour of Kings achieved 50 million average daily users (Hancock, 2017). Therefore, Honour of Kings was the most suitable mobile game for this study as it was well-known among Chinese people.

# 3.1. Research design

In this study, the independent variables were attractiveness and congruence; the dependent variable was purchase intention; the mediating variable was attitude towards advertisements. In addition, the experiment used two types of products to explore the relationship among the variables in the experiment. Thus, the combination was 2 (the attractiveness of fantasy figures, high/low) × 2 (the congruence between the fantasy figures and the brand, high/low) × 2 (the two types of products, high price/low price). Consequently, eight conditions were created; see Table 1 below:

**Table 1:** Overview of eight conditions

Product type	Congruence	Attractiveness	Conditions
High price product	High	High	1 (high congruence, high attractiveness, high price product)
	High	Low	2 (high congruence, low attractiveness, high price product)
	Low	High	3 (low congruence, high attractiveness, high price product)
	Low Low	4 (low congruence, low attractiveness, high price product)	
Low price	High	High	5 (high congruence, high attractiveness, low price product)
product	High	Low	6 (high congruence, low attractiveness, low price product)
	Low	High	7 (low congruence, high attractiveness, low price product)
	Low	Low	8 (low congruence, low attractiveness, low price product)

#### 3.2. Procedure

For the data collection, an online questionnaire was created and distributed. The questionnaire (Appendix E) for the main test was issued in Chinese because all the participants were from China. Eight conditions (each of them containing a fantasy figure and a brand/product) chosen from the pre-test were randomly assigned to the participants. All questionnaires were mobile-friendly, which improved participants' response rate.

The questionnaire started with an explanation of this research. Participants were only informed that the research was about advertisements at the beginning of the questionnaire. Before participants started the questionnaire, they were asked whether they were willing to take the questionnaire. If a participant did not agree, the questionnaire ended; if a participant had not played the mobile game Honour of Kings, the questionnaire ended as well.

In the main part of the questionnaire, participants looked at an advertisement and answered questions about their purchase intention. The advertisement remained on the screen while the participants answered the questions. In the next part, the participants were asked about their basic situation (age, gender, and education). Those data were used to understand the participants' backgrounds.

At the end of the questionnaire, there was an acknowledgement of the participants as well as an email addresses for contacting the researchers.

#### 3.3. Participants

The questionnaire was distributed through social media platforms. There were two main sources of participants on social medial. One source included friends and relatives of the researcher. The other source was strangers on social media platforms whom the researcher sent messages to requesting that they fill out the survey.

There were 276 participants who filled out the survey. Of those participants, 243 completed all the questions on the survey (including the demographic questions), while 33 participants only answered questions about the stimuli materials. Those participants were all considered valid participants because they used a reasonable time (more than 70 seconds) to answer the questions about the stimuli materials. All the participants were exposed to the stimuli materials. Each group was exposed to one advertisement, which represented one condition chosen randomly.

Among the 243 participants who had answered the demographic questions, 51% of them were male, while 44% were female. The mean of participants' ages was 23. Of the participants, 86.8% had some higher education, which meant they were working on or has finished a bachelor's degree. Only 13.2% of the participants had only a

lower education (e.g., primary school and high school). Sample characteristics are presented in Table 2. ANOVA was used to test the significant differences among the ages, and Chi-square was used for gender and occupation. The resulsts of ANOVA and Chi-square showed that there were no significant difference among the age, gender and occupation (See Appendix A).

**Table 2: Overview of the participants within the conditions** 

Stimulus Group	Participants	Age	Ge	Gender		cupation
	n	Mean	Male	Female	Student	Non-student
1 (high congruence, high attractiveness, high price product)	41	23	19	22	24	17
2 (high congruence, low attractiveness, high price product)	36	23	17	16	16	17
3 (low congruence, high attractiveness, high price product)	31	24	17	11	8	20
4 (low congruence, low attractiveness, low price product)	35	23	14	13	15	12
5 (high congruence, high attractiveness, low price product)	32	23	16	11	14	13
6 (high congruence, low attractiveness, low price product)	34	24	22	10	18	14
7 (low congruence, high attractiveness, low price product)	34	23	14	14	20	8
8 (low congruence, low attractiveness, low price product)	33	24	17	10	11	16

#### 3.4. Pre-test

Before the main research in the study, the fantasy figures for the main test were chosen to produce the stimulus materials. Two groups of fantasy figures with different levels of attractiveness were first distinguished in the first pre-test. Then each of those fantasy figures was matched with two brands/products. By grouping each fantasy figure with two brands/products, each fantasy figure could be given a congruence score in the second pre-test.

# 3.4.1. Pre-test 1: Distinguished two groups of fantasy figures with high/low attractiveness respectively

In the first pre-test, the fantasy figures were distinguished into two groups: a high attractiveness group and a low attractiveness group. Twenty fantasy figures were first chosen from among 70 fantasy figures based on the researcher's personal standard. Then, 20 fantasy figures were shown to participants in online questionnaires. The participants answered questions about their attitudes towards those fantasy figures based on the image of the fantasy figures. Twenty-eight participants were involved in

the first pre-test.

There were three questions to measure the attractiveness of the fantasy figures. Those questions were "how much do you like the fantasy figure?", "How familiar are you with the fantasy figure?", "How popular do you think this fantasy figure is?" The first two questions were used to measure the two dimensions of attractiveness (likability and familiarity). As mentioned before, similarity would not be taken into account in determining attractiveness as it seemed too difficult to measure the similarity between fantasy figures and consumers.

To further measure how familiar the fantasy figures were and how favourably they were perceived by a majority of consumers, the third question about popularity was added. In reality, some players prefer to use one specific fantasy figure in the game, so that figure was more familiar to them than the majority of players. However, the participants also know which figures are favourably perceived by and familiar to the majority of players. Therefore, it was necessary to ask the participants about which fantasy figure was popular in their opinion. A seven-point Likert scale was used (1-not at all to 7-very much).

In the data analysis, the scores for the likability, familiarity and popularity of the fantasy figures would be compared with each other. The mean scores of each fantasy figure in the high attractiveness group were all higher than those for the low attractiveness group with regard to likability, familiarity and popularity. The high attractiveness group was confirmed as being significantly different from the low attractiveness group; see Appendix B.

Based on the results, four fantasy figures (GuiGuZi, Dianwei, Niu Mo Wang and ZhongKui) belonged to the low attractiveness group, while seven fantasy figures (Hou Yi, An Qi La, Lu Ban, Ya Se, Xiao Qiao, Zhuang Zhou, and Wang Zhao Jun) belonged to the high attractiveness group.

# 3.4.2. Pre-test 2: Matched suitable fantasy figures with brands/products for the experimental conditions

In the pre-test 2, two brands were selected for grouping with those selected fantasy figures from pre-test 1. These two brands were Lenovo and Red Bull, which represent two product types (high/low price). These products are very common and readily found in consumers' lives, and most Chinese consumers had a basic knowledge of them. Accordingly, these two brands/products were chosen.

Each fantasy figure was grouped once with each brand. The image of each fantasy figure and the product were presented together in the questionnaires, and participants answered questions about the congruence between the fantasy figure and the product/brand. There were 35 participants involved in pre-test 2.

There were two questions to measure the congruence of the fantasy figures with the brands/products. Those questions were "The fantasy figure is compatible with the product and the brand." and "The fantasy figure is relevant to the product and the brand". A seven-point Likert scale was used (1-not at all to 7-very much).

In the data analysis, the mean scores of the two questions for each group became the congruence scores. The higher the congruence score the higher the congruence between the fantasy figures and the brands. A check of the significant differences among the groups was carried out to ensure that high/low congruence groups were distinguished. The results are presented in Appendix C.

After two pre-tests, eight groups of figures and brands/products were selected, which also represented the eight conditions in this study. The final stimulus materials were produced based on these matching groups; see Figure 3 below:



Lenovo for those who do.

Condition 1 (high congruence, high attractiveness, high price product)



Lenovo for those who do.

Condition 2 (high congruence, low attractiveness, high price product)



Lenovo for those who do.



Lenovo for those who do.

Condition 3 (low congruence, high attractiveness, high price product)



Condition 5 (high congruence, high attractiveness, low price product)

Condition 4 (low congruence, low attractiveness, high price product)



Condition 6 (high congruence, low attractiveness, low price product)



Condition 7 (low congruence, high attractiveness, low price product)



Condition 8 (low congruence, low attractiveness, low price product)

Figure 3: the eight conditions of the main test.

#### 3.5. Measurement

In this section, the validity and reliability of the main test are explained. First, the sources of the questions in the main-test questionnaire are presented. Second, a factor analysis was conducted to explore whether the questions or items in the survey were actually measuring corresponding concepts. Then, the results of the Cronbach's alpha are presented to support the reliability of the main test.

#### 3.5.1. Questions measuring the variables

In the main test, all the questions about both the independent and dependent variables were derived from the existing literature. The researcher adjusted those questions for

the main test.

Attitude towards advertisements. The questions measuring attitude towards advertisements were from Choi and Rifon (2012). More items were added under this question, for instance, "attractive", "persuasive", "well-made", "reliable", and "beautiful".

Purchase intention. Questions about purchase intention came from the studies by Napoli el at. (2011) and Putrevu and Lord (1994). Those questions directly asked whether people had an interest in buying the computer or the energy drink after they observed the advertisement. Those statements were "Based on this advertisement, it is likely that I will purchase this product in the future.", "This advertisement makes it more likely that I will buy this product." and "If I need a computer, I will certainly consider buying this product."

In addition, several statements were added to measure purchase intention. These statements were "Based on this advertisement, I think this brand is reliable.", "Based on this advertisement, I think this brand guarantees satisfaction." (Delgado, 2004), and "This advertisement gives me a good feeling about this product." (Vandecasteele & Geuens, 2010). These statements reflected whether consumers would have positive attitudes regarding the brands/products, so they were included in the measurement of purchase intention in this study.

Attractiveness. There were no direct questions in the literature to measure the attractiveness of the fantasy figures. As mentioned and explained in the first pre-test, three questions continued to be used to measure attractiveness: "How much do you like the fantasy figure?", "How familiar are you with the fantasy figure?", and "How popular do you think this fantasy figure is?".

Congruence. Questions to measure the congruence between the fantasy figures and the brands/products were also drawn from Choi and Rifon (2012). The research adjusted those questions for the main test. The statements were "The fantasy figure is compatible with the product and the brand", "The fantasy figure is appropriate to be with the product and the brand", "The fantasy figure is relevant to the product and the brand", "The fantasy figure is well-matched with the product and the brand".

#### 3.5.2. Factor analysis and reliability check

The factor analysis was used to examine whether the selected questions were actually measuring the corresponding variable. Since the researcher adapted questions from literature for the experiment, a factor analysis was necessary. Each variable (congruence, attractiveness, attitude towards advertisements and purchase intention) was tested by the factor analysis; see Table 3.

**Table 3**The results of the factor analysis Rotated Component Matrix

Item		Co	mpone	nt	
	ATA	PI	ATT	Con.	Others
Well-made	.822				
Beautiful	.800				
Attractive	.780	.403			
Interesting	.747				
Favourable	.713	.461			
Persuasive*	(.615)	(.494)			
Reliable*	(.605)	(.496)			
Based on this advertisement, I think this brand guarantees		.781			
satisfaction.					
If I need a computer/an energy drink, I will certainly		.779			
consider buying this product.		745			
This advertisement makes it more likely that I will buy		.745			
this product.		742			
Based on this advertisement, it is likely that I will		.743			
purchase this product in the future.		726			
Based on this advertisement, I think this brand is reliable.	(505)	.736			
This advertisement gives me a good feeling about this	(.505)	(.624)			
The fortest forms is relevant to the manda to add the				021	
The fantasy figure is relevant to the product and the brand.				.831	
				926	
The fantasy figure is appropriate to be with the product and the brand.				.826	
				011	
The fantasy figure is well-matched with the product and the brand.				.814	
				.800	
The fantasy figure is compatible with the product and the brand.				.800	
How familiar are you with the fantasy figure?			.821		
, ,			.788		
How much do you like the fantasy figure?					
How popular do you think this fantasy figure is?			.761		(796)
I am not interested in buying this product. *					(.786)
Based on this advertisement, I do not trust this brand. *	027	006	046	727	(.768)
Cronbach's alpha	.937	.906	.946	.737	

<sup>\*</sup>The items with brackets needed to be dropped; ATA: attitude towards advertisements;

Attitude towards advertisements. There were seven items to measure attitude towards

PI: purchase intention; ATT: attractiveness; Con: congruence.

advertisements. Two items ("Persuasive" and "Reliable") were dropped as they measured different components.

Purchase intention. There were seven items to measure purchase intention. Three of the items among them were dropped because they measured different components. The questions that were dropped were "I am not interested in buying this product.", "Based on this advertisement, I do not trust this brand." and "This advertisement gives me a good feeling about this product.".

Attractiveness. All the items for to measure "attractiveness" measured the same component based on the results of the factor analysis. Consequently, all the items remained.

*Congruence*. All the items to measure "congruence" measured the same component based on the results of the factor analysis. As a result, all the items remained.

After the factor analysis, the Cronbach's alpha was calculated for each construct in order to prove the internal consistency. A construct is reliable if the alpha is 0.70 or higher. Those items that were dropped in the factor analysis would not join the calculation of the Cronbach's alpha and the further analysis. The Cronbach's alpha for the remaining items were all higher than 0.70, which means the data are reliable. More details about the final items in the questionnaire can be found in Appendix D.

#### 4. Results

The following section describes the experimental results of this study. The manipulation check was operated first. The results related to investigating the relationships among the variables follow.

#### 4.1 Manipulation check

There were supposed to be two different levels of congruence and attractiveness for each product type. The results show that the manipulation of attractiveness succeeded in both product types. The manipulation of congruence failed in the Lenovo group but succeeded in the Red Bull group; see Table 4.

Attractiveness manipulation check. For the manipulation of attractiveness, the results of the ANOVA show that there were significant differences between the two levels of attractiveness in the two types of product groups. In the Lenovo group, the high attractiveness condition (M=4.44, SD=1.19) was significantly different from the low attractiveness condition (M=3.55, SD=1.41, F(1, 140) = 16.69, p < 0.05). The same occurred in the Red Bull group (high attractiveness: M=4.55, SD=1.44; low attractiveness: M=3.70, SD=1.36). The p-values for two levels of attractiveness in the

two types of product groups were all smaller than 0.05 (F(1, 131)=12.1, p < 0.05).

Congruence manipulation check. Based on the results of the ANOVA, the mean congruence score of the high congruence condition (M=3.41; SD=1.54) was the same as for the low congruence condition (M=3.44, SD=1.34) in the Lenovo group, which means there were no significant differences between the two levels of congruence (F(1,141)=0.013, p=0.91). The manipulation of congruence failed in the Lenovo group. Nevertheless, the mean congruence score showed the obvious gap between these two levels in the Red Bull group. The score for the high congruence condition (M=2.42, SD=1.33). There was a significant difference between the two levels of congruence (F(1, 131)=50.23, p<0.05). Therefore, the manipulation of congruence succeeded in the Red Bull group.

In sum, the manipulation check of congruence failed in the Lenovo group, where the expected level of congruence (high/low) did not appear. However, the manipulations of both attractiveness and congruence were successful for the Red Bull group. Therefore, the Red Bull group would be the main study group for examining the two independent variables (congruence and attractiveness) in the next result analysis.

**Table 4**The results of the manipulation

Product type	Attractiveness	Attractiveness Mean Score (SD)	Sig.	Congruence	Congruence Mean Score (SD)	Sig.
Lenovo	High	4.44(1.19)		High	3.41 (1.54)	
Lenovo	Low	3.55(1.41)	0.00	Low	3.44(1.34)	0.91
Red Bull	High	4.55(1.44)		High	4.23(1.62)	
Red Bull	Low	3.70(1.36)	0.00	Low	2.42(1.33)	0.00

<sup>\*</sup> p < 0.05 - significantly different

#### 4.2 Overview of the main effects between the variables

Because the manipulation check of congruence failed in the Lenovo group, the main effects of congruence and attractiveness would be tested in the Red Bull group. A multivariate analysis of variance was used to measure the main effect of the independent variables. The analysis was performed with "attractiveness" and "congruence" as the factors, while "attitude towards advertisements" and "purchase intention" were the dependent variables. Table 5 shows an overview of all these outcomes.

**Table 5:**The overview of the main effects of the independent variables

Independent variables	Dependent variables	Mean square	F	Sig.
A 44ma at izzan a aa	Attitude towards advertisements	0.27	0.12	0.73
Attractiveness	Purchase intention	0.05	0.02	0.88
Congruence	Attitude towards advertisements	14	5.93	0.02*
Congruence	Purchase intention	6.7	3.40	0.07
Attractiveness* congruence	Attitude towards advertisements	1.22	0.53	0.47
	Purchase intention	1.6	0.78	0.38

<sup>\*</sup> p < 0.05 - significantly different

According to the results of the MANOVA analysis, attractiveness had no significant main effects on attitude towards advertisements (F(1, 129)=0.12, p=0.73) and purchase intention (F(1, 129)=0.02, p=0.88); a main effect of congruence was found on attitude towards advertisements (F(1, 129)=5.93, p=0.02); congruence tended to have a significant effect on purchase intention (F(1, 129)=3.4, p=0.07).

In addition, interaction effects were not found for the independent variables on the dependent variables (attitude towards advertisements, F(1, 129)=0.53, p=0.47; purchase intention, F(1, 129)=0.78, p=0.38).

In sum, attractiveness had no significant influence on either attitude towards advertisements and purchase intention; congruence has a significant main effect on attitude towards advertisements and a tendency toward having a significant main effect on purchase intention.

#### 4.2.1 Main effects of attractiveness

In the Red Bull group, no main effects of attractiveness were found on attitude towards advertisements or purchase intention; see Table 6.

Attitude towards advertisements. The mean scores of attitude towards advertisements were close to each other within the two levels of attractiveness (within the high level of attractiveness, M = 3.3, SD = 0.2; within the low level of attractiveness, M = 3.2, SD = 0.2; F(1, 131) = 0.08, p = 0.78). This indicates that there was no main effects of attractiveness on attitude towards advertisements.

*Purchase intention.* The mean scores of purchase intention were the same within the two levels of attractiveness (within the high level of attractiveness, M = 3.1, SD = 0.18; within the low level of attractiveness, M = 3.1, SD = 0.18; F = (1, 131) = 0.01, P = 0.92). This indicates that there were no main effects of attractiveness on purchase

intention.

**Table 6**The results of the MANOVA testing the main effects of attractiveness

Dependent variables	Attractiveness	M	SD	F	Sig.
Attitude towards advertisements	High	3.3	0.2	0.08	0.78
Attitude towards advertisements	Low	3.2	0.2		
Purchase intention	High	3.1	0.18	0.01	0.92
	Low	3.1	0.18		

<sup>\*</sup> p < 0.05 - significantly different

# 4.2.2 Main effects of congruence

In the Red Bull group, a main effect of congruence was found on attitude towards advertisements, while a tendency effect was found on purchase intention; see Table 7.

Attitude towards advertisements. Congruence had a significant main effect on attitude towards advertisements (F(1, 131) =5.93, P=0.02). Participants gave higher scores for attitude towards advertisements in the high level of congruence (M = 3.6, SD =1.4) than in the low level of congruence (M = 2.9, SD= 1.60).

*Purchase intention*. Congruence tended to have a main effect on purchase intention (F(1,131)=3.4, P=0.07). The participants had slightly higher purchase intentions (M=3.33, SD=1.4) when observing an advertisement with high congruence than an advertisement with low congruence (M=2.9, SD=1.60). The main effect of congruence on purchase intention was not strong enough to be significant yet.

**Table 7**The results of the MANOVA testing the main effects of congruence

Dependent variables	Congruence	M	SD	F	Sig.
Attitude towards advertisements	High	3.6	1.4	5.99	0.02*
Attitude towards advertisements	Low	2.9	1.6		
Purchase intention	High	3.3	1.4	3.29	0.07
	Low	2.9	1.4		

<sup>\*</sup> p < 0.05 - significantly different

# 4.3 Mediating effects of attitude towards advertisements

In addition to the main effects of the independent variables, another aim of this study is to determine if attitude towards advertisements is the mediator between the dependent variables (attractiveness and congruence) and the dependent variable (purchase intention). To test the conceptual model, the predicting relationship of

attractiveness and congruence on purchase intention was analysed. It was hypothesized that this relationship is mediated by attitude towards advertisements. The overview of the results testing this hypothesis can be found in Table 8.

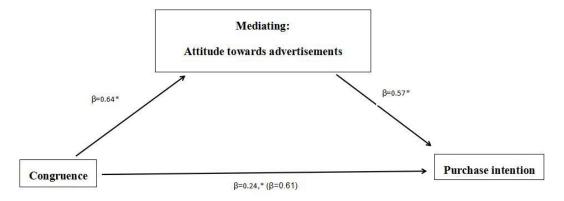
There were four conditions to determine whether the mediating effect of attitude towards advertisements between the independent variables (attractiveness and congruence) and the dependent variable (purchase intention) existed or not. All four conditions needed to be fulfilled (Baron Kenny, & 1986). First, attractiveness/congruence must predict attitude towards advertisements; second, attractiveness/congruence must predict the purchase intention; third, there must be a main effect of attitude towards advertisements on purchase intention; last, the main effect of attractiveness/congruence must disappear when controlling for the mediator.

The results show that attractiveness has a week correlation with attitude towards advertisements ( $\beta$  = 0.11, t = 2.34, p = 0.02) and purchase intention ( $\beta$  = 0.07, t = 1.38, p = 0.17). This means that attitude towards advertisements has no mediating effect between attractiveness and purchase intention.

Attitude towards advertisements was confirmed as a mediator between congruence and purchase intention; see Figure 4. The four conditions were met: congruence predicted attitude towards advertisements ( $\beta$  = 0.64, t = 13.81, p < 0.00), congruence predicted purchase intention ( $\beta$  = 0.61, t = 12.24, p < 0.00), attitude towards advertisements predicted purchase intention ( $\beta$  = 0.57, t = 10.28, p < 0.00), and the correlation of congruence on purchase intention decreased ( $\beta$  was dropped from 0.64 to 0.24) when adding attitude towards advertisements as a factor.

**Table 8**The results testing the mediating effect of attitude towards advertisements

Model	Factors	Dependent variables	Beta	t	$\mathbb{R}^2$	Sig.
Step 1	Congruence	Attitude towards	0.64	13.81	0.45	0.00*
-	-	advertisements	0.11	2.34	0.47	0.02*
Step 2	Congruence	Purchase intention	0.61	12.24	0.40	0.00*
Step 2	Attractiveness	i dichase intention	0.07	1.38	0.70	0.17
	Congruence		0.24	4.44		0.00*
Step 3	Attractiveness	Purchase intention	0.007	0.16	0.57	0.87
	Attitude towards advertisements		0.57	10.28		0.00*



<sup>\*</sup> p < 0.05 - significantly different

**Figure 4:** Attitude towards advertisements as a mediator between congruence and purchase intention

#### 5. Discussion

The main goal of this study was to investigate to what extent the attractiveness of the fantasy figures and the congruence of the fantasy figures with the brands had an influence on attitude towards advertisements and purchase intention.

The study shows that attractiveness has no main effect on attitude towards advertisements and purchase intention. However, a significant main effect of congruence was found on attitude towards advertisements, and a tendency toward a main effect of congruence on purchase intention was found. In addition, this study provided statistical evidence proving that attitude towards advertisements had mediating effects between congruence and purchase intention.

In summary, congruence was positively and directly related to both attitude towards advertisements and purchase intention; attitude towards advertisements was a mediator between congruence and purchase intention. H2a/H2b was supported, and H3 was partly confirmed by this study; see Table 9.

It should be noted that attractiveness did not influence attitude towards advertisements and purchase intention in this study. There were almost no correlations among attractiveness, attitude towards advertisements and purchase intention. The findings related to attractiveness contradicted those from the previous literature, so further discussion and explanation are needed.

**Table 9**Overview and outcomes of the hypotheses

	Hypotheses	Outcome
H1a/H1b	Attractiveness is positively related to attitude towards	Rejected
	advertisements and purchase intention.	
H2a/H2b	Congruence is positively related to attitude towards advertisements	Confirmed
	and purchase intention.	
Н3	Attitude towards advertisements is a mediator between the	Partly
	independent variables (attractiveness and congruence) and purchase	confirmed
	intention.	

#### 5.1. Discussion about attractiveness

Researchers and marketers claim that attractiveness is an important component of a celebrity's credibility and is effective in influencing consumers' evaluations (Hovland, Janis & Kelley, 1953; McGuire, 1985). Yoon, Kim and Kim's (1998) work particularly noted that attractiveness is the most important dimension of credibility for influencing attitude towards the advertisement. This finding was also supported by other studies (e.g., Chaiken's, 1979; Joseph, 1982; Petroshius & Crocker, 1989; Erdogan, 1999).

In addition, attractiveness was found to have an influence on purchase intention as well in Pornpitakpan's (2004) study. Similarly, in Kahel and Homer's study (1985), consumers had a higher purchase intention when they observed an attractive celebrity rather than an unattractive celebrity in an advertisement. Some other scholars (e.g., Petroshius & Crocker, 1989;Guido & Peluso, 2009) shared the same belief that attractiveness probably influences purchase intention.

In conflict with this literature, this study did not provide statistical evidence proving that attractiveness influences attitude towards advertisements and purchase intention. According to the manipulation check on attractiveness, the two levels of attractiveness were successful identified by the participants. Attractiveness was noticed by the participants but did not lead to any influence on consumers' evaluation of the advertisements and their further behavioural tendencies. There are two possible reasons for the results in this study.

The first possible explanation is that the attractive fantasy figures were not matched up with the right products/brands. Based on the match up hypothesis, attractive endorsers should be matched with products that are related to attractiveness. In Kamins's (1990) study, an attractive endorser would be effective when he/she advertised an attractiveness-related product (e.g., a luxury car), whereas an unattractive endorser could not be as effective with the same product. Kamin (1990)

concluded that the match or fit between the endorser and the products/brands is more important than the attractiveness of the endorsers alone. The match up also applies to other dimensions of credibility (i.e., expertise and trustworthiness) (Kamin, 1990). Misra and Beatty (1990) added that endorsers could not transfer their influence to products/brands if they did not match up well with those products/brands. Attractiveness is probably not enough to influence consumers' perceptions about advertisements and purchase intention. In this study, the attractive fantasy figures were not matched up with the right products/brands. As a result, attractiveness did not become effective even though the participants identified the attractive fantasy figures (This fact is based on the results of the manipulation check of attractiveness). This also explains why congruence rather than attractiveness had main effects on attitude towards advertisements and purchase intention.

The other possible explanation is about the different characteristics between fantasy figures and human beings. Almost all the literature about attractiveness is based on the fact that the endorsers were human beings. Therefore, the items measuring attractiveness, such as attractive/unattractive, classy/not classy, and sexy/not sexy, more closely measured the endorsers' attractiveness in terms of their physical charm (McGuire, 1985; Ohanian, 1990; Baker & Churchill, 1997; Kahle & Homer, 1985). In previous studies, scholars chose physically attractive endorsers as their experimental stimuli: Kamins (1990) compared Tom Selleck (attractive) and Telly Savalas (unattractive) and Khong and Wu (2013) used the images of Jack Chan and David Beckham. With the presence of physically attractive endorsers, advertisements motivated consumers to associate themselves with the endorsers. To gain this physical charm of the endorsers, consumers would probably buy those products/brands (Byrne et al, 2003).

Compared to those physically attractive celebrities, the fantasy figures from this study obviously lack the physical attractiveness of human beings. The items used to measure the attractiveness of the fantasy figures in this study were likability and familiarity. These items actually reflected how adorable or well-known those fantasy figures are to participants, which did not address the aspect of physical attractiveness. It was also noticed that no existing measurement was used to measure the physical attractiveness of the fantasy figures. In short, the attractiveness of the fantasy figures that was emphasized in this study really addressed likability and familiarity, while the attractiveness of the endorsers in previous studies really addressed physical charm.

The difference between these two types of attractiveness probably leads to the different results in this study. This also provides a possible explanation for why attractiveness was weakly correlated to attitude towards advertisements and purchase intention. Future research should go deeper in understanding the attractiveness of fantasy figures.

## 5.2. Discussion about congruence

Congruence plays an important role in co-branding (Fleck, Korchia &Le, 2012). If there is congruence between brands, there is a logical fit or a logical connection between the brands, and consumers understand the fit or connection (Heckler & Childers, 1992; Fleck, Korchia & Le, 2012). Some scholars shared the similar belief that congruence sharpened consumers' positive evaluation of advertisements (Kahle & Homer, 1985; Kamins, 1990; Choi & Rifon, 2012). Moreover, congruence possibly led to a higher purchase intention as consumers would process advertising information better and faster with the congruence between brands (Llicic & Webster, 2013). Studies provided empirical evidence to support the idea that congruence is positively related to purchase intention (Kahle & Homer, 1985; Kamins & Gupta, 1994)

The results of this study partly align with those findings in the literature above. The congruence of the fantasy figures with the Red Bull drink had a main effect on attitude towards advertisements. Nerveless, the main effect of congruence on purchase intention was not strong enough to be significant. One possible of explanation for this is that there were not enough data to indicate a relationship between congruence and purchase intention. Future research could collect more data to investigate the influence of congruence on purchase intention.

In addition, this study also found that congruence has a strong correlation with attitude towards advertisements and purchase intention. That means that with higher congruence attitude towards advertisements becomes more positive and purchase intention would rise. This finding specifically noted that congruence was a key factor in the process of consumers assessing advertisements.

Furthermore, the failure of the manipulation of congruence in the Lenovo group deserves attention in this study. In the pre-test, the manipulation of congruence succeeded, indicating two groups of fantasy figures with different levels of congruence. However, the same fantasy figures from the pre-test were used in the main test and they all received the same congruence score, showing no differences between the figures with regard to congruence.

The different results of the manipulation of congruence probably resulted from the different presentations of the fantasy figures and the products/brands. The images of the fantasy figures were presented together with the image of the Lenovo computer in the pre-test (they were two different pictures), while the images of the fantasy figures were inserted into the advertisements with the Lenovo computer in the main study (they were combined in the same picture). The measurement of congruence was the same in both the pre-test and the main test.

The success in the pre-test and the failure in the main test indicates that the participants thought those fantasy figures were not suitable for endorsing the Lenovo computer. The congruence that existed in the pre-test meant that the participants did agree with the relevance and connection between the figures and the Lenovo computer.

However, when advertisement of fantasy figures endorsing the Lenovo computer was probably surprising for the participants. In China, companies usually use fantasy figures from computer games to endorse computers to highlight the strong functions of computers. This was a familiar pattern for consumers. In the experiment, the fantasy figures from mobile games were endorsing the Lenovo computer, which was in-congruent with their previous experience. Consequently, the participants thought the fantasy figures were not congruent with the Lenovo computer, even though those figures were relevant to the product/brand in other respects. In short, consumers probably hold a belief that fantasy figures from mobile games are not suitable for endorsing computer brands. Future research could use phone brands as test subjects to investigate whether this explanation is right or not.

#### 5.3. Discussion about the mediating effect of attitude towards advertisements

Singh and Spears' (2004) elaborated a model to represent how attitude towards advertisements influences purchase intention. Consumers had a general feeling when they observed the advertisements. Then, they sharpened the attitude towards advertisements. Next, attitude towards advertisements further influenced attitude towards brands and finally influenced purchase intention.

Similarly, four causal models were used to explain the mediator of attitude towards advertisements between congruence (ad cognition and brand cognition) and purchase intention (Mackenzie, Lutz & Belch, 1986). These models were the affect transfer hypothesis (ATH), the dual mediation hypothesis (DMH), the independent influences hypothesis (IIH), and the reciprocal mediation hypothesis (RMH). Among them, three models (ATH, DMH and RMH) suggested that congruence always first influences attitude towards advertisements. Then, attitude towards advertisements influences attitude towards the brand and finally purchase intention.

This study added several items from the measurement of brand image and brand trust into the measurement of purchase intention. As a result, purchase intention actually also contained attitude towards brand in this study. In this situation, the mediating effect of attitude towards advertisements was exactly the same as the causal mediating effect of attitude towards advertisements on attitude towards the brand and purchase intention.

#### 5.4. Limitations and future research

There were several limitations to this study that may lower the significance and generalizability of these findings.

Failed manipulation of congruence in the Lenovo group. As mentioned in the discussion of congruence above, this study failed to manipulate congruence in the Lenovo computer group. The possible reasons and explanations were elaborated upon in the discussion section. Since the two levels of congruence were not distinguished in the Lenovo group, the main data analysis of this study was not only limited by the number of product categories in this study but also by the generalizability of the findings. Future study can be more cautious in the manipulation of the congruence of fantasy figures with products/brands. Meanwhile, more product categories should be added.

Measurement of attractiveness. There were no existing measurements of the attractiveness of fantasy figures. This study changed two dimensions of attractiveness (likability and familiarity) into the measurement of attractiveness of fantasy figures. As was mentioned in the discussion of attractiveness above, the measurement of attractiveness in this study neglected to include the aspect of physical attractiveness. Future studies can focus on constructing a more suitable measurement for the attractiveness of fantasy figures.

Sample. Since the mobile game Honour of Kings was only released in China at the time this study was conducted, all the participants were from China. In addition, the distribution of the questionnaire was through social media. Participants probably shared very similar backgrounds as they were both directly or indirectly connected to the researcher. Therefore, the sample of this study limited the generalizability of the findings, especially for other nations and people of other cultural backgrounds.

Stimulus materials. The stimulus materials might unnecessary bias participants' evaluations of the advertisements. The advertisements used in the main test were made by the researcher. On one hand, the designs stayed as simple as possible so the participants would not be influenced by the designs. On the other hand, the simple designs might not reach the standard of participants' expectations in real life, which might influence the results. Future studies can provide better quality advertisements as stimulus materials.

#### 5.5. Implications

This study mainly explored how fantasy figures function as marketing tools in co-branding. The outcome of the study provides substantial evidence that congruence and attitude towards advertisements are essential for enhancing consumers' purchase

intention.

Based on the results of the study, congruence had a positive main effect and positive correlation with purchase intention, and attitude towards advertisements did so as well. Attractiveness did not influence attitude towards advertisements and purchase intention. These findings lead to certain practical implications.

First, with the fast development of mobile games, researchers and marketers should pay attention to co-branding with mobile games. Currently, most of the literature about mobile games marketing is about advertisement placement in mobile games (Terlutter & Capella, 2013; Nelson, 2002; Lewis & Porter, 2010). Thus, more research about fantasy figures' endorsement in the future are necessary.

In addition, there are some benefits of using fantasy figures as endorsers. Traditionally, companies not only need to pay a large amount of money to invite well-known celebrities to become their endorsers but also pay for relevant costly items (e.g., transporting costs and accommodation costs), which are not necessary for fantasy figures. For some smaller bands or companies, using fantasy figures for endorsement seems to be a more economical option. Some limitations for celebrities, such as the time-and-space restriction and the problem of achieving too creative ideas, are also eliminated by utilizing fantasy figures. It is obvious that companies do not need to schedule fantasy figures for filming advertisements. Companies can also produce more creative advertisements, which may be difficult for human beings to achieve but would not be difficult for fantasy figures.

When making use of fantasy figures in advertisements, marketers should make an effort to achieve a high congruence between the fantasy figures and the products/brands. It is actually difficult to present fantasy figures and products/brands in co-branding advertisements as fantasy figures are fictional while products/brands are real. That means that markers should spend more effort on looking for suitable fantasy figures or should work harder to create more obvious connections between the figure and the products/brands in advertisements.

Furthermore, attractiveness should also be considered in the process of producing advertisements. Even though this study did not show that attractiveness influences attitude towards advertisements and purchase intention, attractiveness might influence other consumers' responses as participants could clearly recognize different levels of attractiveness for the fantasy figures in this study.

Last but not least, because of the mediator of attitude towards advertisements, precision marketing is probably a useful tool for marketers. Precision marketing tools allow advertisements to be delivered to specific blocks of customers (Wikipedia, 2017). Consumers are targeted for the delivery of different advertisements. With the precision marketing tool, marketers can probably improve consumers' attitude

towards advertisement and then influence purchase intention. For instance, consumers who know the mobile game Honour of Kings are probably more willing to receive relevant advertisements, and they probably have more positive attitudes towards those advertisements.

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# **Appendix**

Appendix A: The ANOVA results for age and Chi-square results for gender, occupation

ANOVA results for age

		Sum of Squares	df	Mean Square	F	Sig.
Congruence	Between Groups	2.979	18	.166	.648	.859
	Within Groups	57.227	224	.255		
	Total	60.206	242			
Price	Between Groups	4.933	18	.274	1.104	.349
	Within Groups	55.586	224	.248		
	Total	60.519	242			
Attractiveness	Between Groups	5.462	18	.303	1.230	.239
	Within Groups	55.262	224	.247		
	Total	60.724	242			

Chi-Square Tests: Gender & congruence

			Asymptotic	Exact Sig.	Exact Sig.
	Value	df	Significance (2-sided)	(2-sided)	(1-sided)
Pearson Chi-Square	.013a	1	.910		
Continuity Correction <sup>b</sup>	.000	1	1.000		
Likelihood Ratio	.013	1	.910		
Fisher's Exact Test				1.000	.507
Linear-by-Linear Association	.013	1	.910		
N of Valid Cases	243				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 48.44.

b. Computed only for a 2x2 table

Chi-Square Tests: Occupation & congruence

					Exact
			Asymptotic Significance	Exact Sig.	Sig.
	Value	df	(2-sided)	(2-sided)	(1-sided)
Pearson Chi-Square	.614ª	1	.433		
Continuity Correction <sup>b</sup>	.428	1	.513		
Likelihood Ratio	.614	1	.433		
Fisher's Exact Test				.442	.256
Linear-by-Linear Association	.611	1	.434		
N of Valid Cases	243				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 52.96.

Chi-Square Tests: Gender & price

			Asymptotic Significance	Exact Sig.	Exact Sig.
	Value	df	(2-sided)	(2-sided)	(1-sided)
Pearson Chi-Square	1.811a	1	.178		
Continuity Correction <sup>b</sup>	1.480	1	.224		
Likelihood Ratio	1.815	1	.178		
Fisher's Exact Test				.197	.112
Linear-by-Linear Association	1.804	1	.179		
N of Valid Cases	243				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 50.20.

Chi-Square Tests: Occupation & price

			Asymptotic Significance	Exact Sig.	Exact Sig.
	Value	df	(2-sided)	(2-sided)	(1-sided)
Pearson Chi-Square	1.001	1	.317		
	a				
Continuity Correction <sup>b</sup>	.760	1	.383		
Likelihood Ratio	1.002	1	.317		
Fisher's Exact Test				.368	.192
Linear-by-Linear Association	.997	1	.318		
N of Valid Cases	243				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 54.89.

b. Computed only for a 2x2 table

b. Computed only for a 2x2 table

b. Computed only for a 2x2 table

Chi-Square Tests: Gender & attractiveness

			Asymptotic Significance	Exact Sig.	Exact Sig.
	Value	df	(2-sided)	(2-sided)	(1-sided)
Pearson Chi-Square	.772ª	1	.380		
Continuity Correction <sup>b</sup>	.562	1	.454		
Likelihood Ratio	.773	1	.379		
Fisher's Exact Test				.438	.227
Linear-by-Linear Association	.769	1	.381		
N of Valid Cases	243				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 52.40.

Chi-Square Tests: Occupation & attractiveness

			Asymptotic Significance	Exact Sig.	Exact Sig.
	Value	df	(2-sided)	(2-sided)	(1-sided)
Pearson Chi-Square	.191ª	1	.662		
Continuity Correction <sup>b</sup>	.096	1	.757		
Likelihood Ratio	.191	1	.662		
Fisher's Exact Test				.701	.379
Linear-by-Linear Association	.191	1	.662		
N of Valid Cases	243				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 57.30.

Appendix B: The results of pre-test about attractiveness

Attractiveness	Figure	Likability_ Mean	Familiarity_ Mean	Popularity_ Mean
Low	GuiGuZi	3.3448	3.0714	3.8621
	Dianwei	3.4483	3.1034	3.7143
	Niu Mo Wang	3.3793	3.3103	3.5517
	ZhongKui	3.5172	3.5517	3.5862
	Bai Qi	3.6207	3.6552	3.8621
High	Hou Yi	4.2069	5.3793	5.1034
_	An Qi La	4.2069	4.6897	5.4138
	Lu Ban	4.2414	5.3103	5.7586
	Zhao Yun	4.2759	4.2069	4.8966
	Ya Se	4.4483	5.4138	5.3103
	Xiao Qiao	4.4483	4.5517	4.9310
	Zhuang Zhou	4.5862	4.7241	5.000
	Bai Li Shou Yue	4.6207	4.1724	4.9310
	Zhao Jun	4.9655	5.2759	5.4828

b. Computed only for a 2x2 table

b. Computed only for a 2x2 table

Appendix C: The results of congruence score on each group within conditions

The results of congruence score each	The results of congruence score each group within conditions						
Condition	Congruence	Standard	Compared	Sig.			
	score	deviation	condition				
Condition 1 (high congruence, high	4.7	1.1	Condition 3	.001			
attractiveness, high price product)			Condition 4	.008			
Condition 2 (high congruence, low	4.4	1.21	Condition 3	.015			
attractiveness, high price product)			Condition 4	.031			
Condition 3 (low congruence, high	3.2	1.4	Condition 1	.015			
attractiveness, high price product)			Condition 2	.001			
Condition 4 (low congruence, low	3.3	1.3	Condition 1	.031			
attractiveness, high price product)			Condition 2	.008			
Condition 5 (high congruence, high	4.5	2.0	Condition 7	.002			
attractiveness, low price product)			Condition8	.044			
Condition 6 (high congruence, low	5.4	1.5	Condition 7	.000			
attractiveness, low price product)			Condition8	.001			
Condition 7 (low congruence, high	2.5	1.4	Condition 5	.000			
attractiveness, low price product)			Condition 6	.002			
Condition 8 (low congruence, low	3.0	1.1	Condition 5	.001			
attractiveness, low price product)							

# Appendix D: Results of items' reliability in the main test

# Results of items' reliability in the main test

Construct	No.	Items	Cronbach's a
	of		
	items		
congruence	4	1. The fantasy figure is compatible to be with the	.946
		product and the brand	
		2. The fantasy figure is fit to be with the product and the	
		brand	
		3. The fantasy figure is relevant to be with the product	
		and the brand	
		The fantasy figure is good matched to be with the	
		product and the brand	
attractivene	3	1. How much do you like the fantasy figure?	.737
SS		2. How much are you familiar with the fantasy figure?	
		3. How much do you think this fantasy figure is	
		popular?	
attitudes	5	What do you think about this advertisement post?	.937
		-Favarable	
		-Interesting	
		-Attractive	
		-Wellmade	
		-Beautiful	
purchase	5	1. Based on this advertisement, it is likely that I will	.906
interest		purchase this product in the future.	
		2. This advertisement makes it more likely that I will	
		buy this product.	
		3. If I need a computer, I will certainly consider buying	
		this product.	
		4. Based on this advertisement, I think this brand is	
		reliable	
		5. Based on this advertisement, I think this brand	
		guarantees satisfaction	

## Appendix E: The main test questionnaire

Hi,

Thank you very much for participating in this research.

I am a student at the University of Twente and I am doing research on the usage of fantasy figures in brand advertisements. The research is for my Master's thesis. It is not commissioned by any of the brands included.

The questionnaire will take about 5 minutes of your time.

Participating in the research is voluntary, and you can opt out any time during the questionnaire. Of course, I hope that you will answer all the questions. That would be a big help for me.

The data will be processed anonymously.

Thank you very much in advance for cooperating.

#### ZiWei.Li

您好,

感谢您参与这次问卷调查,

我是荷兰特温特大学的研究生,正在做一项关于游戏人物和品牌广告的研究。这份问卷调查属于我毕业论文的主要部分,并非所涉及品牌公司所做的商业调研。这份问卷调查将会花费约 5 分钟的时间。

参与这次问卷调查建立在自愿原则上,您可以随时停止回答。但我真诚希望您能 回答全部的问题。您的宝贵的反馈是对我极大的帮忙。

问卷调查的数据是匿名保密的。

谢谢您的配合!

黎子伟

### I agree with participating in this research.

请问您同意参加这次问卷调查吗?

-Yes

同意

-No

不同意

## Have you played the game 'Honour of Kings'?

请问您有玩过《王者荣耀》吗?

-Yes

有

-No (End the survey)

没有

## [Advertisement post]

Please take a good look at the advertisement and answer questions below.

请您仔细观察以下广告,并回答问题。

Based on this advertisement, it is likely that I will purchase this product in the future.

基于这个广告,我很大可能在未来会购买这个产品。

This advertisement makes it more likely that I will buy this product.

这个广告使我很大可能会购买这个产品。

This advertisement gives me good feeling about this product.

这个广告给我一份关于这份产品的好印象。

If I need a computer/an energy drink, I will certainly consider buying this product.

如果我需要一台电脑,我肯定会购买这个产品。

如果我需要购买能量饮料,我肯定会购买这个产品。

I am not interested in buying this product.

我对这个产品没有兴趣。

(Totally disagree to totally agree)

Based on this advertisement, I think this brand is reliable

基于这个广告, 我认为这个品牌是可靠的。

Based on this advertisement, I think this brand guarantees satisfaction

基于这个广告,我认为这个品牌满足我的需求。

Based on this advertisement, I do not trust this brand.

基于这个广告,我不相信这个品牌。

### What do you think about this advertisements post?

您对这个广告有什么感觉?

-Favarable

赞赏的

-Interesting

有趣的

-Attractive

有吸引力的

-Persuasive

具有说服力的

-Wellmade

制作精美的

-Reliable

可信赖的

-Beautiful

视觉漂亮的

### Questions about attractiveness of fantasy figures.

How much do you like the fantasy figure?

您对这个英雄有多喜欢?

How much are you familiar with the fantasy figure?

您对这个英雄有多熟悉?

How much do you think this fantasy figure is popular?

您认为这个英雄的热门程度有多少?

## Questions about congruence of fantasy figures with the product/brand.

The fantasy figure is compatible to be with the product and the brand 该游戏人物与品牌产品搭配协调。

The fantasy figure is fit to be with the product and the brand 该游戏人物与品牌产品搭配合适。

The fantasy figure is relevant to be with the product and the brand 该游戏人物与品牌产品之间存在一定的关联性。

The fantasy figure is good matched to be with the product and the brand 该游戏人物与品牌产品匹配和谐。

# To what extent are you in general interested in buying a computer?

总体上来说,您对购买一台手提电脑的兴趣程度有多少?

#### OR

To what extent are you in general interested in buying a energy drink?

总体上来说,您对购买一瓶能量饮料的兴趣程度有多少?

### What is your age?

您的年龄是?

What is your gender?

您的性别是

-male

男

-female

女

## What is your occupation type?

您的职业类型是

-student

学生

-non-student

非学生

## What is your highest education degree?

初中

高中

职业学校 本科或本科以上

# How long have you played 'Honour of Kings'?

months

您玩《王者荣耀》多长时间了?

月(请您把对应的数字填在下面方框里)

# How often do you typically play'Honour of Kings'?

\_times per week

您玩《王者荣耀》的频率多少?

\_\_\_次一周 (请您把对应的数字填写在以下方框里)

# How long is your typical playing session?

minutes per time

您玩一次《王者荣耀》一般多久?

分钟每次(请您填写对应的数字在以下方框)

## To what extent are you in general interested in mobile games?

总体上来说, 您对手游的兴趣程度有多少?

To what extent are you in general interested in playing 'Honour of Kings'?

总体上来说,您对《王者荣耀》的兴趣程度有多少?

This is the end of the questionnaire. Thank you for your time!

If you have any questions, you can reach me via email (z.li-7@student.utwente.nl)

问卷调查结束,谢谢您的参与!

如果你有任何问题,你可以通过邮件方式与我联系(z.li-7@student.utwente.nl)

### Note:

\*All measurement were using 7-point scale.