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Selecting a female athlete endorser in China

The effect of attractiveness, match-up, and consumer gender difference

Matthew Tingchi Liu

Faculty of Business and Administration, University of Macau, Macau, People's Republic of China, and

James L. Brock

School of Business, Pacific Lutheran University, Tacoma, Washington, USA

1214

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Abstract

Purpose – This study seeks to investigate the relationship among attractiveness of female athlete endorsers, product/service match-up, and consumers' purchase intention within the context of China.

Design/methodology/approach – A $3 \times 2 \times 2$ between-subject experimental design enabled a 12-scenario study depicting a purchase experience manipulated by endorser attractiveness levels (high/middle/low), endorser-product match-up (high/low), and two different product types (to prevent single-product bias). Differences between female and male samples are also compared.

Findings – In terms of the generation of purchase intent, there is no difference between a middle attractive female athlete endorser and a low-attractive one when both are in a low match-up condition. While the use of middle attractive female athlete endorsers works only in a high match-up condition with female consumers, it is certain that high attractiveness always works better than low attractiveness. In total, the results suggest that female athlete endorsers' attractiveness affects Chinese consumers' purchase intention more than match-up.

Originality/value – The results not only compare the relationships between attractiveness and match-up, but also push traditional endorser theories one step farther by examining the concept of middle level attractiveness and by probing the effect of a middle-attractive female endorser. The cultural influence of Chinese traditional philosophy, *The Doctrine of the Mean*, on Chinese consumers is discussed and considered. The influence of middle attractiveness endorsers on study subjects of different genders is also discussed.

Keywords China, Gender, Consumers

Paper type Research paper

Introduction

Sports events had driven the value of sports-related industries in China to \$1.4 billion (0.3 percent of China's GDP) by 2004 and were expected to double by the end of 2009, following the Beijing Olympic year (JPMorgan Chase & Co., 2005). Compared with the value of sports-related industries in the USA (3 percent of GDP), the business potential in China seems great. More and more top-tier sporting events, such as the Olympic Games, NBA pre-season games, Formula One racing, PGA golf tournaments, and

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Masters Tennis Cup matches, are being held in China. Given increasing numbers of sports activities and mass media broadcasting, famous professional athletes are more popular than ever.

In China's growing sports industries, one issue is sponsoring famous athletes as endorsers. According to McCracken's (1989) definition, celebrity endorsement refers to the situation in which any person who is publicly known appears in an advertisement with the purpose of promoting the advertiser's product. Celebrity endorsers use their public recognition on behalf of consumer goods by appearing with them in advertisements (McCracken, 1989). A successful endorser can increase consumers' purchase intentions and preference toward brands directly or indirectly (Liu *et al.*, 2007). Endorsers with strong credibility source factors (expertise, trustworthiness, attractiveness, etc.) can significantly affect consumer purchase intention (Ohanian, 1991). Endorsers have been a popular and successful way of promoting messages in advertising (Nikas, 1999). Using an endorser is a common, convenient, and effective way to reach consumers in sports marketing.

Among various endorsers, notable athlete endorsements are relatively specific and effective. Sponsoring sports stars as endorsers is a common practice especially for sports equipment manufacturers (e.g. NIKE, Adidas, etc.). For example, Michael Jordan, Kobe Bryant, Yao Ming (basketball), David Beckham, Michael Owen (soccer), Derek Jeter (baseball), Roger Federer, Maria Sharapova (tennis), Tiger Woods (golf), and Michael Phelps (swimming) are all well-known athletes; they all have endorsed not only products that are closely related to sports (e.g. sports equipment) but also many other products (e.g. watches, razors, IT consulting services). Although endorser related topics are widely discussed, there are still many meaningful areas, which should be explored, particularly in newly developed markets. China has long held a reverence for strong women, such as the folk hero Hua Mulan and the idealized Rosie-the-Riveter-type Communist propaganda heroines. This reverence created a space where women were elevated who were loyal, filial, or gave service to the nation. (Brownell and Wasserstrom, 2002). Like their counterparts in Western countries, sports stars in China are commonly perceived as heroes or idols and are very influential as a reference group. What is unique is that, among professional athletes in China, females are respected more highly than males (Dong *et al.*, 2007). This could be explained by several reasons:

- Chinese female professional athletes perform better than males in international sports events. For example, since the 1998 Seoul Olympic Games, female Chinese athletes have won more gold medals than male athletes five times in row[1].
- World leading performances, by Chinese athletes, in several sports (e.g. volleyball, table tennis, diving, soccer, swimming) during the last two decades, were achieved primarily by females.
- As in other Eastern countries, the social role and status of women have traditionally been considered lower than that of men in China, so the great achievements of female athletes have impressed Chinese people much more in recent years (Brownell, 2008; Dong *et al.*, 2007; Brownell, 1995).

In this sense, some outstanding Chinese female athletes have practically become legends in Chinese society. Lang Ping is five-time world championship team member in women's volleyball, the only Chinese elected to the Volleyball Hall of Fame, and

currently coach of the USA women's volleyball team. Deng Yaping won four consecutive Olympic gold medals in table tennis and ranked number one in the world for eight straight years. Fu Mingxia won six world diving championships and was the youngest Olympic gold medalist ever at 14. With respect to female athletes as endorsers, the current research set out to explore whether existing research conclusions could be applied in the China market, for the following reasons.

First, does attractiveness, the most controversial factor in endorser strategy, affect consumers' purchase intentions when female athletes act as endorsers in China? Many studies conducted in industrialized societies show similarities in preferences toward attractiveness (Furnham *et al.*, 2003; Furnham *et al.*, 2002; Henss, 2000; Markey *et al.*, 2002; Singh, 2002). However, other cross-cultural studies, have shown apparent differences in the preferences expressed (Furnham *et al.*, 2002; Marlowe and Wetsman, 2001; Wetsman and Marlowe, 1999; Yu and Shepard, 1998). For example, Swami and Tovée (2005) showed that preferences for different body weights in Malaysia and Britain varied with socio-economic status, and that body shape played a relatively minor role. Swami *et al.* (2006) showed that there were significant differences in preferences for physical attractiveness, with Japanese subjects, for example, preferring images of women with significantly lower body mass index (BMI) than Britons when judging physical attractiveness.

Meanwhile, attractiveness has a different impact on the Chinese market than on other markets in relevant research. Dion *et al.* (1990) claim that physical attractiveness stereotyping is weaker among people from collectivist societies (ex China), whereas Chen *et al.* (1997) and Wheeler and Kim (1997) argue that physical attractiveness stereotyping is a strong phenomenon, the content of which varies across cultures. However, published research directly related to endorsers' attractiveness in a Chinese context is quite limited. Physical attractiveness of athlete endorsers, played a significant role, in determining Chinese consumer purchase intention (Liu *et al.*, 2007)[2], but in sum, although using highly attractive celebrities (including athletes) as endorsers has been proven to be effective (Liu *et al.*, 2007; Caballero *et al.*, 1989; Baker and Churchill, 1977), the effectiveness of endorsers works with many restrictions or prerequisites (Yoshifumi and Munehiko, 2008; Pornpitakpan, 2003; Caballero *et al.*, 1989; Friedman and Friedman, 1979; Kanungo and Pang, 1973). This unclear history suggests it would be useful to examine the impact of female athlete endorsers in China.

Further extending the inquiry, much of the past research on endorser-product type match-up has tended to compare highly attractive endorsers with unattractive ones using a "high vs low" attractiveness setting (e.g. Kamins, 1990; Kahle and Homer, 1985). How effective might be a "middle-attractive" female endorser in China, and under what conditions? So far, no research has been found in this area.

Also, while considering the strategy of using endorsers, match-up (or "fit") is an important factor affecting consumers' attitude and purchase intention. Celebrities are not effective for every product category (Friedman and Friedman, 1979). A high match-up could improve the celebrity endorser effect (Kamins, 1990) and increase information recall (Misra and Beatty, 1990). The importance of match-up in endorsement strategy (Kamins, 1990; Misra and Beatty, 1990; McCracken, 1989; Kahle and Homer, 1985; Baker and Churchill, 1977; Peterson and Kerin, 1977) may be less so in China, where many female athletes to endorse unrelated (i.e. low match-up) products. For example, female champion weight lifter Tang Gonghong endorsed an immersion

heater; Olympic and world diving champion Guo Jingjing endorsed electric fans and chocolate chip cookies, and Lang Ping, the previously mentioned woman's volleyball MVP, endorsed grape juice. These cases might be explained by marketers who compensate for low-match up by using high-attractive endorsers. That attractiveness can compensate for low match-up is already known by previous studies (ex. Liu *et al.*, 2007; Ohanian, 1991; Kahle and Homer, 1985; Baker and Churchill, 1977; Mills and Harvey, 1972; Mills and Aronson, 1965), but a focus in the current research is with how much more attractive an endorser must be to compensate for a low match-up. A complicating factor that females have a different beauty appreciation standard from males (Davison and McCabe, 2005), so it is possible that male and female Chinese consumers react differently to female endorsers of different attractiveness levels. These gender differences are also compared and discussed in this research.

Popular athletes have often been used to endorse goods and services. While male sports stars have a well-documented history as product endorsers, their female counterparts have rarely been researched (Brownell, 2008). The goal of this study is to investigate the relationships among the attractiveness of female athlete endorsers, match-up, and consumers' purchase intention in the context of China. This paper explores the differential effects of pairing female athlete endorsers of differing levels of attractiveness with different types and levels of endorser-product match-up.

Literature review

Endorsers have been a popular and successful way of promoting messages in advertising (Nikas, 1999). A successful endorser strategy can increase consumer recall, (Friedman and Friedman, 1979), strengthen brand recognition of endorsed brands, positively affect consumer attitudes toward low involvement products (Petty *et al.*, 1983), and even increase consumers' purchase intention and preference toward a brand (Bower and Landreth, 2001; Lafferty *et al.*, 2002; McCracken, 1989). Understanding the effectiveness of endorsers is an important issue for both practitioners and academics. To verify the effectiveness of an endorser strategy, models have been developed to select appropriate celebrity endorsers. The four most well-known are: the source credibility model, the meaning transfer model, the source attractiveness model, and the match-up hypothesis model (Liu *et al.*, 2007).

The source credibility model, based on social psychology literature (Hovland and Weiss, 1952), asserts that endorsers exhibiting expertise and reliability are credible and, to that extent, persuasive (McCracken, 1989), has been extensively applied in the celebrity literature with a general finding that credible celebrities are relatively effective endorsers (Ohanian, 1991; Atkin and Block, 1983).

McCracken (1989) explains the meaning transfer model as assessing the meanings that consumers associate with the endorser and then transfer to the brand. According to Martin (1996), celebrity endorsers provide a "set of characteristics" that supports consumers in evaluating the presented brand. Celebrities may convey a broad range of meanings, involving demographic categories (e.g. age, gender, status), personality, and lifestyle types. This perspective is shared by Kambitsis *et al.* (2002), who found the athlete's personality to be an important factor in influencing "specific target groups, to which such personalities are easily recognizable and much admired".

The source attractiveness model, also developed from social psychology research (McCracken, 1989), contends that the effectiveness of a message depends on source

familiarity, likeability, similarity, and physical attractiveness of the endorser (Ohanian, 1990). Source attractiveness leads to persuasion through a process of identification – the receiver is motivated to seek a relationship with the source and adopts a similar position in terms of beliefs, attitudes, preferences or behaviour.

Although positive effects of the source attractiveness model have been supported by scholars (Liu *et al.*, 2007; Ohanian, 1991; Kahle and Homer, 1985; Baker and Churchill, 1977; Mills and Harvey, 1972; Mills and Aronson, 1965), much evidence indicates that the source attractiveness of endorsers works with many restrictions or prerequisites (Pornpitakpan, 2003; Caballero *et al.*, 1989; Friedman and Friedman, 1979; Kanungo and Pang, 1973). The definition of attractiveness in this research (especially the hypotheses) was clarified to focus solely on physical appearance in order to avoid bias because some elements of attractiveness (e.g. familiarity, likeability, and similarity) are significantly related to the individual endorser (DeShields *et al.*, 1996) and may lead to ethnocentrism bias (Liu *et al.*, 1995).

Advertisers have chosen celebrity endorsers on the basis of their physical attractiveness to gain from the dual effects of celebrity status and physical appeal (Singer, 1983); while there is no doubt that attractive celebrity endorsers enhance attitudes towards advertising and brands, the role that they play in repeat purchase intention is less clear (Byrne *et al.*, 2003). Also, celebrity attractiveness is related positively to brand image, which in turn is related positively to brand equity (Seno and Lukas, 2007). Many researchers claim that physical attractiveness seems to have been granted greater influence than can be supported empirically. For example, Pornpitakpan (2003) indicated that the attractiveness dimension does not affect product purchase intention; Bower and Landreth (2001) found that highly attractive models are not the most effective choice for all categories of attractiveness-relevant products.

These inconsistent results of the source attractiveness model may result from too many different types of attractiveness-relevant products (Bloch and Richins, 1992) that may not all be appropriate for use with highly attractive people (Bower and Landreth, 2001). Since celebrities are not effective for every product group, there is need for greater understanding about the kinds of celebrities required for appropriate endorsement of products (McCracken, 1989). To this end, the well-known “match-up hypothesis” argues that the message conveyed by the image of the celebrity and the message about the product ought to converge in effective advertisements (Kahle and Homer, 1985). Misra and Beatty (1990), examined the effect of celebrity endorsers/endorsed brand image congruity, on recall, and affect. They found that celebrities who were congruent with brands produced a significantly more favorable brand recall (and affect) than incongruent or irrelevant celebrity/brand match-ups. Walker *et al.* (1992) pointed out that closer relationship between images of celebrity and endorsed product yield better evaluation effects toward endorsed products.

Hypotheses

Both attractiveness and match-up are influential factors of successful endorsements. The two variables could be related; attractiveness was one of the elements of match-up in research on attractiveness-related products such as perfume and cosmetics (Till and Busler, 2000; Solomon *et al.*, 1992). The two variables also could be contrasted; attractiveness was independent when non-attractiveness related products (e.g. a toilet)

were endorsed. (Till and Busler, 1998; Liu *et al.*, 2007). Except for obvious situations (e.g. the combination of high attractiveness and high match-up can work best; and low attractiveness plus low match-up would work worst when other variables, such as expertise, are well established and held constant), previous studies yield inconsistent conclusions about which is more important. For example, Till and Busler (1998) argued that high match-up between the celebrity and the product plays a more important role than attractiveness of the endorser alone for the effectiveness of the advertisement. By contrast, Liu *et al.* (2007) pointed out that match-up is not as important as attractiveness with male endorsers. Cunningham *et al.* (2008) indicated that the attractiveness level of female athletes has a significant impact on consumer intention to attend or watch a televised sport contest and even exerts greater influence than the athlete's own skill level.

In China, the phenomenon of "chasing" beautiful celebrities is becoming more popular, especially among younger consumers. Advertisers want to take advantage of consumers' tendency to accept celebrity endorsements (and endorsed products), even though consumers may consider the celebrity appearance as entertainment (Choi *et al.*, 2005). When a female athlete endorses a product unrelated to sports, she may be considered a general celebrity with weakened professional identification and hence be compared with endorsers from other fields (ex pop singers, movie stars, or fashion models). In this sense, her physical attractiveness becomes the most outstanding feature and produces the most significant influence on customers because the reference group consideration sets are widely extended (Nelson, 1991). Liu *et al.* (2007) also discovered that high attractiveness works better than high match-up when Chinese consumers evaluate male endorsers. These help explain why consumer purchase intentions are more influenced by the attractiveness of female athletes rather than their athletic skills. Although a study by Liu *et al.* (2007) provided a possible direction, gender difference was significant in much of the research in various consumer behavior fields; males and females may hold different attitudes toward or react differently to the same stimulus. For example, McDaniel (1999) indicated females were found to report significantly more positive attitudes and purchase intentions than males for higher match-up sport/sponsorship advertising. Liu *et al.* (2006) found that male and female Chinese consumers differed significantly when they were exposed to an ad featuring a low attractive male model. In this sense, it is necessary to test for differences in how high attractiveness and high match-up work between males and females. With respect to purchase intent, Liu *et al.* (2007) imply that the compensation effect of high attractiveness to low match-up is thus stronger than the effect of high match-up to low attractiveness:

- H1.* Given the same increasing range (from low to high) of the female athlete endorser's attractiveness and endorser-product match-up, the former would have a stronger impact on consumer purchasing intention.

According to the match-up hypothesis, an athlete who endorses a sport-related product is simultaneously regarded as a celebrity, an expert, and a superstar. If the athlete is very attractive, then the endorsement could be thought perfect; Michael Jordan, David Beckham, and Maria Sharapova, all could be seen as great examples. Of course, only some superstar athletes are also physically attractive. Much of the past research on endorser-product type match-up has tended to compare high attractive endorsers (e.g.

professional models) against low attractive endorsers (e.g. Kamins, 1990; Kahle and Homer, 1985), instead of considering more realistic, normally attractive endorsers as counterpoints. The “normal” or middle level of attractiveness is defined in this study as average, not distinguished, neither highly attractive nor highly unattractive (<http://tw.dictionary.yahoo.com/search?ei=UTF-8&p=%E5%B9%B3%E5%87%A1>).

The cultural background of China values “middle attractiveness.” The Chinese have been greatly influenced by Confucianism over thousands of years (since 500BC). A prominent core concept of Confucianism, the *Doctrine of the Mean* (sometimes called The Philosophy of Golden Mean) is prominent in Confucianism: in the Analects, Confucius writes of the harmonious life as one avoiding excesses and deficiencies (Legge, 1971). The *Doctrine of the Mean* not only demands that Chinese sincerely explore commonalities (instead of differences) but also influences personal-activity to be in harmony with others (Yau, 1988). *Doctrine of the Mean* is considered to influence evaluating criteria and expression styles when Chinese judge or evaluate other people subjectively (Yau, 1988). As a result, when questioned by others, Chinese consumers may often express “neutral”, “middle”, or “no comment” sentiments to save attitudinal harmony from being broken by possible arguments. Chinese may be particularly reticent to judge others as “low attractive”, preferring instead to express a neutral judgment.

Thus, research on Chinese consumers could be more meaningful by probing the “middle option” setting of attractiveness, compared to the traditional “high vs low” setting of attractiveness in previous western studies.

Cross-cultural studies find that men consistently express stronger preferences for attractive mates/friends than women do (Gottschall, 2007). And, some different views of endorsers caused by gender difference can also be found. Boyd and Shank (2004), argued that men were more influenced by athlete endorsers than were women. Lin and Tsai (2006) found that Chinese male consumers cared more about attractiveness than female consumers when they watched advertisements with female endorsers.

The attractiveness of the female athlete and her skill level both significantly contributed to participants’ judgment that she was a great endorser; male respondents emphasized attractiveness more than skill (Fink *et al.*, 2004). Considering male preference for female attractiveness, it is logical that, regardless of whether the match-up is high or low, the most powerful factor for triggering male consumers’ purchase intent is high endorser attractiveness.

H2. Male purchase intentions generated by the low-attractive and middle-attractive female athlete endorser would not be significantly different, and both would be lower than purchase intentions generated by the high attractive female athlete endorser, regardless of the degree of match-up.

However, it has been argued that females have different beauty appreciation standards than those of males (Davison and McCabe, 2005). Kowner and Ogawa (1993) indicated the existence of a contrasting effect of attractiveness stimuli on the judgment of target stimuli in men and women; a gender difference was evident in the contextual effect of physical attractiveness stimuli. Females held less strict judgment standards to female attractiveness and waist-to-hip ratio than males did (Singh, 2002). Chinese male consumers cared more about attractiveness than female consumers when they watched

advertisements with female models (Liu *et al.*, 2006). Men care about facial appearance much more than women when they are considering a mate for possible sexual behaviour (Boothroyd *et al.*, 2008). Men had more positive attitudes toward their own bodies than women did, but women had a wider range of satisfaction with other females' bodies than men did to other males (Franzoi and Herzog, 1987), i.e. females may hold a relatively more positive attitude than men in their reported evaluation/perception of middle-attractive females. Thus, in spite of the general effect of the *Doctrine of the Mean*, the more broadminded appreciation of females by females cannot be ignored[3]. Leung (1999) noted that Hong Kong female consumers had high purchase intentions toward products endorsed by a middle-attractive female endorser when she endorsed high match-up products. This argues that middle attractive female endorsers may be powerful in influencing female consumers' purchase intent when the match-up is high.

- H3a.* In a low match-up condition, female purchase intentions generated by the middle-attractive and low-attractive female athlete endorser would not be significantly different.
- H3b.* In a low match-up condition, female purchase intentions generated by the middle-attractive and high-attractive female athlete endorser would be significantly different.
- H3c.* In high match-up, female purchase intentions generated by the middle-attractive and high-attractive female athlete endorser would not be significantly different.
- H3d.* In high match-up, female purchase intentions generated by the middle-attractive and low-attractive female athlete endorser would be significantly different.

Research method

Experiment design

To examine these hypotheses, the study used a $3 \times 2 \times 2$ between-subject design. Specifically, in this 12-scenario study depicting a purchase experience, the manipulations were endorser attractiveness levels (high/middle/low), endorser-product match-up (high/low), and product type (to prevent single product bias).

Before performing the experiment, endorser-product match-up mixes were chosen by conducting a consumer pretest. In total, 40 graduate students were given a list of 15 products[4], all endorsed by different female athletes in television advertising within a 12-month period in China (Liu *et al.*, 2007). Consumers evaluated the relational strength between the products and athlete endorsers on a five-point scale (totally matched = 5, totally not matched = 1). In order to prevent single product bias from consumers, the two highest-scored products (sport shoes and mineral water) were selected as high-matched items and the two lowest-scored products (an immersion heater and a toilet) as low-matched items. Moreover, to protect the test from pre-existing brand influence (e.g. brand awareness, loyalty, or preference), products were described without brands, trademarks, or obvious symbols.

The female athlete endorser in the experimental scenario was described as outstanding and well known due to her excellent athletic performance and credible

trustworthiness. There was no mention of a specific profession, nationality, or identity in order to eliminate the bias of specific sport categories (e.g. table tennis or diving), specific races, or nationalities, and the associational effect of a specific person in the real world (e.g. a controversial sport star in China). The levels of expertise, trustworthiness, awareness, and exposure, were all well controlled with the same description in questionnaires. Three scenarios about female athlete endorsers with different levels of attractiveness were developed (see Table I).

As described previously, in an effort to avoid bias caused by ethnocentrism (Liu *et al.*, 1995), the major variable in the research hypotheses, attractiveness, is defined as physical attractiveness. Attractiveness was presented to participants through a brief, and objective scenario of physical appearance without mention of any elements that might lead to respondent judgments about nationality or ethnicity (e.g. skin, eye, and hair color, or details of facial features), and, again to avoid bias, without showing pictures or other visual depictions of high, middle, and low attractive endorsers (even fictitious ones). In some related research, the experimental design included showing endorsers' pictures to respondents; however, scenario description (without pictures) is also commonly used in related research (e.g. Liu *et al.*, 2007; Fink *et al.*, 2004; Till and Busler, 2000) to measure attractiveness. Although choosing not to present pictures to participants might have methodological downsides (e.g. sacrificing the first and perhaps most natural feeling/impression that arises from sight, thus weakening the internal and the external validity), the scenario description [5] was employed for several reasons:

- the ruling out of possible bias caused by ethnocentrism;
- the prevention of respondents from making possible associations and applying existing judgments to specific real athlete(s); and
- an allowance such that respondents could be mentally led to think about their ideal high, middle, or low, attractive endorser to avoid bias from different, subjective and personal appreciations of attractiveness.

Attractiveness level	Scenario descriptions of endorsers
High	Ms A is a very outstanding, successful, world champion athlete. She usually devotes herself to public, non-profit charity activities. Besides, Ms A owns superior and balanced muscle, excellent body shape, and really fancy face. Her astonishing smile appears often and almost all fans feel happy from the bottom of their heart when they see her. Also, she is well-mannered, educated and a thoroughly decent person. The audiences are hungry to be closer to her because they are happiness-driven
Middle	Ms B is a very outstanding, successful, world champion athlete. She usually devotes herself to public, non-profit charity activities. The appearance of Ms B looks so normal and featureless; she owns average height and weight. Also, she is well-mannered, educated and a thoroughly decent person. Some fans like her and feel happy to see her
Low	Ms C is a very outstanding, successful, world champion athlete. She usually devotes herself to public, non-profit charity activities. However, she is relatively large and muscular, and her facial features are plain at best. Although she is well-mannered, educated and a thoroughly decent person, she does not have many avid fans and spends much of her time alone

Table I.
Scenario descriptions of
endorsers of different
attractiveness level

The descriptions were direct and the three settings are obviously different. For example, the low attractive endorser was described thus: "Ms C is a very outstanding, successful, world champion athlete. She usually devotes herself to public, non-profit charity activities. However, she is relatively large and muscular, and her facial features are plain at best. Although she is well-mannered, educated and a thoroughly decent person, she does not have many avid fans and spends much of her time alone". Admittedly, the straight description leads respondents into accepting a line of opinion and makes the scenarios less translatable to real life. The setting of obvious differences among scenarios is helpful to data analysis, but it also gives consumers little freedom; despite this flaw, use of such tactics is a convincing and reasonable compromise to ensure the accuracy and reliability of the design and measurement. Following Smith and Bolton's (2002) lead, experimentally generated scenarios were developed and pre-tested for validity using an expert panel. The three scenarios were tested to ensure they captured the manipulations of each construct. This initial test resulted in a 91.8 percent inter-rater agreement. The credibility of the scenarios was tested using 73 undergraduate students. Overall the respondents rated the scenarios as realistic and that they were able to adopt the role of the customer (mean = 6.28 on a seven-point scale where 7 is strongly agree and 1 is strongly disagree). To assess the attractiveness manipulation, subjects responded to three questions on a seven-point scale after they read the assigned scenario:

- (1) I feel excited and happy when I see her.
- (2) I want to be closer to her when she appears in front of me.
- (3) I want to know more information about her.

Subjects and experiment process

A two-part experiment was constructed and administered to volunteer undergraduate, graduate, and MBA students from four universities in Beijing, China[6] with age groups of 18-23 (32 percent), 24-29 (28 percent), 30-35 (17 percent), and 35 + (23 percent), and with 51 percent of respondents being female. Most participants were traditional undergraduates. This age group is frequently a target market for products that use athletes for endorsements (Martin, 1996). Additionally, MBA students aged around 30, with three to five years working experience and commensurate incomes are also one of major targets in sport marketing (Liu *et al.*, 2007). Thus a student sample is suitable to this study and strengthens the study's practical contribution. Data were collected during respondents' class time in March, 2008.

In the first phase, participants were randomly assigned to one of the 12 different experimental conditions. Each cell size ranged from 28 to 32 ($N = 360$). Each participant received a test booklet containing descriptions about female athlete endorsers and was told to follow the instructions closely. After reading descriptions about the female athletes, participants were asked to rate the attractiveness of "their" female athlete by using a seven-point scale for manipulation check.

In the second phase of the experiment, participants read a description and saw a picture of the product that was endorsed by the female athlete. The product was either high or low matched depending on the experimental condition to which they were assigned. The participants were instructed to examine the pictures carefully and then to rate the degree of match-up between endorser and product by using a seven-point scale for manipulation check.

Moreover, participants were then asked to indicate their purchase intention using a seven-point scale from strongly disagree (one point) to strongly agree (seven points). Purchase intention was measured by using a multiple measure design from previous research (see Biswas and Blair, 1991; Lichtenstein *et al.*, 1989; Singh and Cole, 1991). The final form of the purchase intention options were: "I'll consider buying this product", "I'm glad to buy this product", and "I'm glad to recommend others to buy this product". Reliability for purchase intention was assessed by conducting a pretest in which 55 undergraduate students viewed the low-matched products and rated their purchase intention. The Cronbach's alpha score for the pretest was 0.87, suggesting high internal consistency reliability for this study according to Nunnally and Bernstein (1994).

Analysis results

Manipulation check

To verify the attractiveness manipulations' effectiveness, an ANOVA was performed and the result strongly supported the efficacy of the experimental manipulation. The mean scores for the high, middle, and low attractiveness conditions were, respectively, 6.42, 4.33, and 2.03 ($F = 116.28, p = 0.000$). As to the effect of match-up manipulation, an ANOVA result indicated a main effect ($F = 13.464, p = 0.001$). The mean scores for the high match-up products were separately 6.6 for the sport shoes and 6.3 for the mineral water. The mean scores for the low match-up products were separately 1.3 for the immersion heater and 1.2 for the toilet. Therefore, the difference between high match-up groups and low match-up ones is significant. In addition, there is no difference in participants' scores between sport shoes and mineral water within the same high-matched group (also between the immersion heater and the toilet within the low-matched group). In order to prevent subjects from single product bias, the two high-matched groups are combined as one group in the following analysis, (as were the two low-matched).

Validity and reliability

Content validity was assessed on the basis of the literature review and experts' opinions as described in the development of the measurement in the preceding paragraphs. The score of the dependent variable, purchase intention, was calculated based on the mean score of its indicators. The Cronbach's alpha for this construct was 0.84 ranging from 0.72 to 0.93.

Data analysis

To verify hypotheses, a two-way ANOVA was used; results are displayed in Table II. As shown, there was a significant main effect for all independent variables in line with

Source	Df	F	Sig.
Attractiveness	2	22.148	0.000**
Match-up	1	14.130	0.001*
Attractiveness × match-up	2	11.320	0.007*

Notes: * $p < 0.01$; ** $p < 0.001$; $n = 360$

Table II.
The ANOVA result of
attractiveness and
endorser-product mix

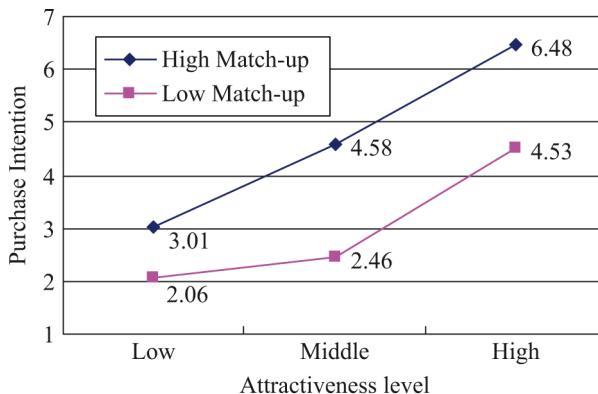
the assumption that endorsers' attractiveness and endorser-product match indeed have influence on customers' purchase intention. Moreover, there was a statistically significant interaction effect between the independent variables. A *t*-test was also performed to compare purchase intentions in various situations.

Figure 1 provides the mean purchase intention scores. Given the low attractive female athlete endorser with low match-up, the consumer's purchase intention would increase from 2.06 to 3.01 (+0.95) if the match-up degree were improved from low to high; however, the consumers' purchasing intention would increase from 2.06 to 4.53 (+2.47) if one compared the low attractive endorser in low match-up with high attractive in low match-up. This suggests that attractiveness of a female endorser plays a more important role than does the degree of match-up ($2.47 > 0.95$) in enhancing consumers' purchase intention. The female athlete endorser's attractiveness has a stronger impact on a consumer's purchase intention in China; thus *H1* is supported. To add practical perspective, consider that the purchase intention generated by a high-attractive endorser with low match-up (Mean = 4.53) is higher than that generated by a low-attractive endorser with high match-up (Mean = 3.01).

As to *H2* (the purchase intention comparisons of males across different attractiveness levels) Figure 2 shows that middle attractiveness of female endorsers does not generate significantly higher male consumer purchase intention as compared to low attractive female endorsers, no matter whether the match-up is low ($t = 0.306, p = 0.582$) or high ($t = 0.579, p = 0.450$). However, highly attractive female endorsers (when compared to middle and low attractive ones) increase male consumers' purchase intention under both low match-up ($t = 10.285, p = 0.01$) and high match-up ($t = 11.780, p = 0.01$) conditions. Thus, *H2* is supported.

As to female respondents (see Figure 3), the situations in low match-up are the same as in the male consumers group. Middle attractive female endorsers did not generate significantly higher purchase intentions than low attractive ones ($t = 0.057, p = 0.811$). However, again in low match-up situations, high attractive female endorsers were associated with significantly higher purchase intentions than middle attractive ones ($t = 15.257, p = 0.000$). Thus, *H3a* and *H3b* were supported.

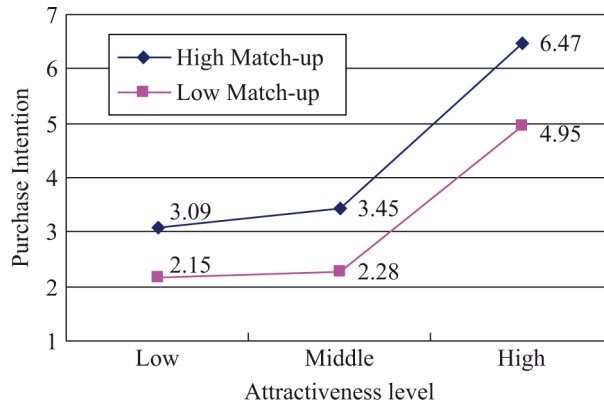
In a high match-up condition, although the high attractiveness endorser elicited higher purchase intentions than the middle attractiveness endorser



Note: $N = 360$

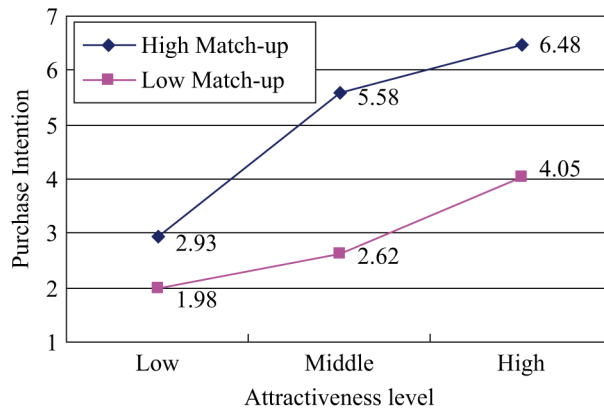
Figure 1.
The effects of attractiveness and match-up on purchase intention

Figure 2.
The effects of
attractiveness and
match-up on purchase
intention on male
consumers



Note: $N = 176$

Figure 3.
The effects of
attractiveness and
match-up on purchase
intention on female
consumers



Note: $N = 184$

($t = 0.811, p = 0.372$), there is no significant difference between the two groups. However, middle attractive female endorsers generated significantly higher purchase intention ($t = 8.269, p = 0.009$) than the low attractiveness. $H3c$ and $H3d$ were also supported. Male and female consumers have significantly different responses to middle attractive female athlete endorsers (see Table III).

Discussion and implications

Discussion

The research results confirm some of the key findings reported in the literature, but also contribute several new ideas. The result takes traditional endorser theories one step farther by probing the effect of middle attractive female endorsers, especially in light of the cultural legacy that the *Doctrine of the Mean* has brought to Chinese consumers. China in 2009 is barely one generation removed from an era when all Chinese wore the same green uniforms (during the famous “Chinese Cultural

Match-up level	Attractiveness level	Mean (total)	Gender (number)	Mean	t-value	Sig.
High	High	6.48	Female (32)	6.48	0.372	0.544
			Male (28)	6.47		
High	Middle	4.58	Female (30)	5.56	8.954	0.004*
			Male (30)	3.45		
High	Low	3.01	Female (32)	2.93	0.000	0.995
			Male (28)	3.09		
Low	High	4.53	Female (28)	4.05	5.794	0.012
			Male (30)	4.95		
Low	Middle	2.46	Female (32)	2.62	0.309	0.581
			Male (28)	2.28		
Low	Low	2.06	Female (30)	1.98	0.906	0.345
			Male (30)	2.15		

Notes: * $p < 0.01$; $n = 360$

Table III.
The cell means of attractiveness, endorser-product match-up and purchase intention

Revolution” from 1966 to 1976) and in many respects did not dare to stand out from others, so the middle option may be particularly useful when studying Chinese. Though the high/middle/low attractiveness levels are divided statistically and tested by manipulation check, in fact middle and low levels may not be clearly separated because of cultural concerns. Under the mild, latent, and long-lasting influences of the *Doctrine of the Mean*, the subjectively spoken “middle” possibly skews to the low side in Chinese consumers’ latent consciousness. The *Doctrine of the Mean* is well understood from previous research (e.g. Legge, 1971; Yau, 1988) to have a moderating effect on Chinese culture and behavior, but at least in the case of males and purchase intentions, it appears to be overpowered by more base instincts – i.e. the preference for high attractive female endorsers.

The research not only underscores the importance of using a middle-option in research of this sort in China, but also suggests that the middle-option issue should be considered in research conducted in countries whose populations hold similar philosophies. For example, most people in Buddhist countries (e.g. India, Thailand) believe that following “Middle Way” (Majjhima-Patipada in Sanskrit) will rid people of all sufferings, and lead people to “nirvana”[7]. The argument might be made that individuals from countries adopting these philosophies have been conditioned to consider the Middle Way a harmonious approach when dealing with personally relationships.

While a few researchers have attempted to determine the effect of consumer gender on athlete endorser effectiveness (e.g. Boyd and Shank, 2004; Peetz *et al.*, 2004), the difference between male and female consumers in their reactions to middle attractive female endorsers is illuminating because much of the past research on match-up and attractiveness has been designed with only high-low comparison, instead of considering more realistic, middle attractive endorsers as counterpoints. A unique contribution of the current research is the discovery of how a middle attractiveness female endorser works in different match-up situations. With female consumers, in a high match-up condition, purchase intention generated by middle attractive female endorsers is not significantly different from that generated by high attractive

endorsers. This supplements the finding that middle attractive female endorsers cannot compensate for the disadvantage caused by low match-up. The more broad-based interpretation of attractiveness by women of female endorsers may play a critical role in changing consumer purchase intention (Davison and McCabe, 2005). The analysis result shows that females might have more sophisticated thinking when they are facing advertisements with female endorsers. To male consumers, the result that high attractive female endorsers play a key role in influencing purchase decisions in China (no matter whether the match-up is high or low) is also consistent with findings of previous studies (ex Baker and Churchill, 1977; Caballero *et al.*, 1989; Liu *et al.*, 2007). Because males are a more visually driven gender (Boothroyd *et al.*, 2008), it should not be surprising that physical attractiveness is what gets their attention, regardless of match-up. Conversely, women may consider other factors besides attractiveness in female endorsers, such as personality, perceived intelligence, etc. They may even resent high attractive women, since they know how strongly men respond to them while highly capable but middle attractive women have to work harder to be recognized (see Table IV).

Adding a third, middle level of attractiveness enhances the completeness of endorser-related theories. This study demonstrates that the function (and possibly cultural implication) of the middle-attractive option is useful in the interest of controlling bias with more sophisticated design under different circumstances. The

The endorsement conditions Match-up level	Evaluation and suggestion to marketer Attractiveness level	
High	High	Not surprisingly, this is the most effective practice, with both male and female consumers, and a condition supported by extensive previous research in addition to the current study
High	Middle	Marketers targeting female consumers can save by paying lower endorsement fees to engage middle attractive endorsers, and achieving virtually the same effect as using a high attractive endorser! This condition does not work well with male consumers, whose purchase intentions are significantly lower than those of female consumers
High	Low	This condition achieves better results than only the low-middle and low-low scenarios, and produced no differences between male and female consumers
Low	High	This condition is highly effective with male consumers, exceeded only by those with middle and high match-up
Low	Middle	This condition, and the low-low condition below are simply not effective
Low	Low	The worst endorsement condition

Table IV.
The evaluation and suggestions under different endorsement conditions by female athlete endorser

middle level option was not considered for the match-ups because the rating of match-up (between professional athlete and endorsed product) is a relatively more objective judgment.

Implications for managers and executives

Many developments, including women's increased spending power, increased media coverage of women's sports, women's positive reaction toward sports, and the increasing view of sportswomen as role models, open legitimate opportunities for female athletes to endorse products (Kane, 1998). From a strategic aspect, the research results suggest that marketers may allocate resources effectively by utilizing highly attractive professional female athlete endorsers. To enhance the efficiency of the communication/promotion budget, the study's results provide a better understanding of how attractiveness and match-up work (and interact) to generate consumer purchase intention.

The effect of the *Doctrine of the Mean* appears to work differently for males and females in China with respect to the attractiveness of female endorser(s). Companies working with endorsers in regions where the legacy of the *Doctrine of the Mean* is strong may wish to depict them as relatively more middle attractive. To promote low sports-related products (low match-up), marketers are advised not to select low or middle attractive female athlete endorsers regardless of whether target customers are male or female. Further, when choosing a female athlete to endorse a high match-up product targeted to males, the most important criterion is high attractiveness. And, if target consumers are mostly female, a middle attractive female athlete endorser should yield results similar to those of a high attractive female athlete endorser, presumably for a lower cost. With increased growth of live media coverage of sporting events, low match-up endorsements are becoming more popular in China because many professional athletes are viewed as celebrities and pop stars. In these situations especially, the gender of target consumers may dictate the degree of attractiveness necessary to generate purchase intention.

Limitations and future research

There are some limitations in this study. First, time and cost factors limited the sample size and led to the selection of student subjects. Second, the number of product categories could be expanded in future study. Third, the experimental process is designed with scenarios to rule out the existing endorsers' images and bias; hence, these scenarios are not identical to those in the real world. The scenario design may cause bias or a response carryover effect (Ohanian, 1991). Different consumers will assign different weights, and even criteria, in their definition of different levels of attractiveness. Using a fictitious endorser and event provided greater internal validity; however, it also limited the ability to generalize the study's findings to actual endorsers and events. Consistent with Till and Busler (2000), "we chose to sacrifice some ecological validity (by using a fictitious rather than a real athlete), but gained construct validity by minimizing spurious confounds and statistical conclusion validity by minimizing within-group variation with our manipulation". These could be improved in order to increase the generalizability of the research results.

Future studies should also include male athletes as endorsers to determine any differences exist between male and female endorsers. Other demographic variables (e.g. age, race) could be manipulated to determine their effects on endorser-product

match-up and purchase intention. Athlete characteristics beyond demographic variables and particular sports may also enhance perceptions of match-up. For example, Lindsay Davenport and Serena Williams, two top-ranking women's tennis players, exhibited very different personas both on and off the court that could have influenced consumer perceptions about the degree of product match-up in different endorsements.

Notes

1. The number of gold medals won by Chinese athletes in Olympic Games (female vs. male): 3 > 2 in Seoul, 1988; 12 > 4 in Barcelona, 1992; 9 > 7 in Atlanta, 1996; 16 > 11 in Sydney, 2000; 17 > 15 in Athens, 2004; 27 > 24 in Beijing, 2008.
2. However, physical attractiveness of athlete endorsers did not significantly affect attitudes of Japanese consumers toward the endorsed advertisement, brand, and subsequent purchase intention (Yoshifumi and Munehiko, 2008).
3. Men and women have different "mating strategies" because of different needs (Singh, 2004). For example, men are visually motivated and tend to be attracted to young, lithe, and physically attractive women, whose offspring will more likely be healthy and physically attractive. Women tend to be attracted to men who will help protect and provide for their offspring, i.e. physical attractiveness may not be as important to women as factors such as strength, political power, and wealth. (Singh, 2004).
4. The 15 listed products included sport shoes (198 pts), mineral water (190 pts), pain-easing ointment (188 pts), female perfume (167 pts), diamond rings (151 pts), carbonated drink (138 pts), credit card (124 pts), bank service (122 pts), cookies (105 pts), contact lens (89 pts), laptop (88 pts), electric fans (72 pts), fashion lamp (68 pts), immersion heater (68 pts) and toilet (58 pts). We ranked here by scores, but we listed them randomly in our pretest questionnaires.
5. It would also be possible to use a more sophisticated research design and show participants pictures that might enable controlling for ethnocentrism.
6. Peking University, Tsinghua University, Chinese Agriculture University, and Beijing Foreign Studies University.
7. "Nirvana" means the perfect level a human being can reach after obtaining ultimate mental peace and purifying the soul; the potency of its influence is seen in the implication that one can forever transcend the cycle of life and death.

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About the authors

Matthew Tingchi Liu, PhD, is an Assistant Professor in the Faculty of Business and Administration, University of Macau. His research papers can be found in many referred academic journals (e.g. *European Journal of Marketing*, *Journal of Consumer Marketing*, *Journal of International Consumer Marketing*, *International Journal of Management Studies*, *International Journal of Mobile Communications*, *Singapore Management Review*, etc.) and Conference Proceedings (e.g. EMAC, Academy of Marketing, AAOM, IEEE, ISTP, EI)

worldwide. He is also an Ad Hoc reviewer of *Journal of Marketing Theory and Practice*, *Asia Pacific Journal of Marketing and Logistics*, *Journal of Marketing Science*, and *Contemporary Management Journal*. He was a consultant in Ernest & Young Consulting before he joined academia. Matthew Tingchi Liu is the corresponding author and can be contacted at: MatthewL@umac.mo

James L. Brock, PhD, is a Dean and Professor in the School of Business at Pacific Lutheran University, USA. He is the former dean of the Sigmund Weis School of Business at Susquehanna University, USA, former Vice President of Marketing at Pacific Steel and Recycling in Great Falls, Montana, and former Dean of the College of Business at Montana State University.

Selecting a
female athlete
endorser

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