Abstract

This paper investigates whether the legal liability for false or misleading endorsement advertising should extend beyond firms to endorsers. We propose a theoretical model based upon the supposition that a firm promotes his product by employing a celebrity endorser to declare publicly his or her valuation for its quality. We show the government’s intervention is not necessary if the surplus created by the high-quality firm is sufficiently high and if the consumer valuation on the high-quality product is also sufficiently high. By contrast, when the surplus created by the high-quality firm is relatively low, there exist multiple false or misleading endorsements, and even worse, the high-quality firm will exit the market if the unit cost of producing the high-quality goods is very high. Therefore, in this situation the government should impose the legal liability on endorsers to improve efficiency.

Keywords: Endorsement Advertising, False or Misleading Advertisements, Celebrity Endorsers, Product Quality, Signaling.
1. Introduction

The use of celebrities or other endorsers in advertisements has been widely applied as a standard marketing fashion aimed at promoting new products and enhancing market shares of existing brands \(^1\). From a firm’s (or an advertiser’s) point of view, an endorsement advertisement is employed to convey the perceived trustworthiness of a product by using a celebrity to create an image for the brand and to generate actual purchases.

According to the Fair Trade Commission’s (FTC) definition and stated in the Fair Trade Act, the term endorsement is generally used to cover both endorsements and testimonials. Endorsements are advertising messages (which include verbal statements, demonstrations, or depictions of the name, signatures, likeness or other identifying personal characteristics of an individual or the name or seal of an organization), which reflect the opinions, beliefs, findings, or experiences of someone other than the sponsors \(^2\).

In practice, endorsement advertising is most often used for promoting experience or credence goods whose quality cannot be determined by inspection prior to purchase, e.g., weight loss and beauty care products or services, health food, and drugs. Under the circumstances in which consumers possess relatively weak product information, firms have incentives to mislead or deceive consumers by creating false impressions of a product’s attributes, even to the point of using endorsers to declare (false) valuations of product quality. As Nelson \(^3\) stated, consumers can only learn that the brand advertises from the endorsements of announcers, actors and others who are paid for their encomiums. In addition, he argued that consumers who actually believe paid-for endorsements are the

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victims of the most benign form of deception 4.

The commercial value of an endorsement is due to the law that grants the endorser an exclusive right to deal in the market place with his or her name, picture or opinions. Hence, the public may want to charge the endorser with a duty not to use his possession of these rights to the detriment of others 5. As a matter of course, endorsers have been treated as an important part linking the consumer protection net. It therefore induces the regulating authority to declare judicially an endorser’s liability when the endorsement implicates deception.

It has already been implemented worldwide that if a product manufacturer engaged in false or misleading advertising, he or she is held liable for consumer injury caused by deceptive advertising. However, the legal perspectives on endorsers’ liabilities for deceptive statements are somewhat discrepant among countries. In the United States, many states’ unfair and deceptive acts and practices (UDAP) statutes and FTC Act impose an affirmative duty on the endorser to require about truthfulness 6. In particular, the FTC announced that it would try to hold celebrities personally liable for any false claims made in the ads that they grace – and make them pay out of their own pockets part of any legal penalties that might be assessed 7. Further, the FTC said that a celebrity must verify the claims made in any commercial before it appears, hiring reliable independent analysts to study them if the star has no expertise in the subject 8. Cases of enforcing the above requirements include a singer Pat Boone together with all four of his daughters making an untrue claim for the medication of anti-acne skin product 9, an astronaut Gordon Cooper for an automobile retrofit devise (G-R Gas Saver Valve) 10, and a baseball star Steve

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4 Same as footnote 3, 751.
8 Same as footnote 7.
9 Same as footnote 7.
Garvey for weight loss supplements (Enforma System)\textsuperscript{11}.

Recently in May 2007, Taiwan’s FTC has passed the revised “Fair Trade Commission Policy Statements on Use of Endorsements and Testimonials in Advertising”\textsuperscript{12}. It declares that the endorser is just liable as the product manufacturer is under the Article 21 of the Fair Trade Act, in terms of the Article 14 of the Administrative Law, if it can be evidenced that the endorser and the firm collaborated in deceptive advertising. The evidence, however, must be proposed by the regulating authority. This policy was first executed in the up-to-date case of the celebrity Wen Cui Pin, which was evidenced to collaborate with the punished producing firms and to intentionally make false claims for the body slimming clothes\textsuperscript{13}.

In other countries, the legislation of endorsement advertising on the endorser may be different from that described above. In Japan, the endorser is not subject to liability. Japan FTC’s regulations on deceptive or misleading advertising or representations are drafted in “Premiums and Representations Act”. The firm (the entrepreneur) concerned is required to summit data as reasonable grounds for the representation he makes; if he fails, then the representation shall be deemed misleading advertising\textsuperscript{14}. In China, a related regulation called “Advertising Law of the People’s Republic of China” does not encompass the celebrity endorser\textsuperscript{15}. Other nations, like Ireland and New Zealand, only


\textsuperscript{13} In this case, both the endorser and the producer were both penalized. Taiwan’s FTC, http://www.ftc.gov.tw/internet/main/doc/docDetail.aspx?uid=861&docid=10115, last visited on date: 2008/6/20.


draw up guidelines for endorsement advertising 16.

Academic research mostly tends to focus on the effectiveness of endorsement advertising and its influences on consumers’ purchase behavior. Exceptions are the studies by Kertz and Ohanian 17, Fan 18, and Lin et al. 19. These articles argue that endorsers engaged in false and misleading advertisements should be held liable for consumers’ injury to some extent, in the presence of the producer liability. Nevertheless, the literature lacks a formal analysis to support these opinions.

By proceeding with a theoretical analysis, we try to explore the necessity that the liability for false or misleading endorsement advertising extends beyond product manufacturers to endorsers. Our focus will mainly be on the efficacy of legal liability imposed on celebrity endorsers involved in deceptive endorsements 20. In particular, we take into account the endorser’s celebrity and product claims as signaling devices of product quality to consumers. Since the use of endorsement advertising is to establish a link between an endorser’s celebrity and the commodity such that consumers are induced to rely on the endorsement to make purchase decisions. In general, public declarations about the product quality by the celebrity can raise consumers’ valuations on the products and benefit firms. Note that these characteristics in our model are distinct from a large literature covering a wide variety of signals, such as price 21, advertising 22, warranty 23

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17 Same as footnote 6.


20 In this paper, we do not discuss whether the producer or the endorser should be liable for deceptive endorsement advertising as well as the distribution of legal liability between them.


and money-back guarantees\textsuperscript{24}.

Our signaling model adopts the concept of cost asymmetries\textsuperscript{25} between firms of different quality types. We consider a firm that plans to promote a new product by inviting an endorser to participate in an advertising campaign. In order to signal the product quality and convey the advertising messages to consumers, the firm selects a celebrity endorser and requires the endorser to make public declaration for the product quality. In particular, a common phenomenon that the endorser with high celebrity cherishes his or her public image more than that with low celebrity does will be considered. This is highlighted by the assumption that an endorser with high celebrity corresponds to a relatively high opportunity cost once he or she determines to accept the firm’s invitation to make a product declaration.

We show the government’s intervention is not necessary if the surplus created by the high-quality firm is sufficiently high and if the consumer valuation on the high-quality product is also sufficiently high. By contrast, when the surplus created by the high-quality firm is relatively low, there exist multiple false or misleading endorsements, and even worse, the high-quality firm will exit the market if the unit cost of producing the high-quality goods is very high. Therefore, the government should impose the legal liability on endorsers to improve efficiency.

The remainder of this article is organized as follows. Section 2 builds a theoretical model. Section 3 derives the main results through equilibrium analysis. In section 4, we make a conclusion.

2. The Basic Model

Consider a firm planning to market a new product. The quality of the new product (denoted by \( q_i \)) is either high \((i = H)\) or low \((i = L)\), where \( q_H > q_L > 0 \). The firm


knows but consumers do not know the product quality prior to purchase. Nonetheless, consumers assess a priori probability that the product is of high quality is \( \lambda \in (0, 1) \). Suppose that the consumers are identical and risk-neutral. Each of them demands at most one unit of the product. We further normalize the size of the population to 1.

To promote the new product, the firm considers inviting an endorser (from two possible celebrities \( e \) and \( \overline{\epsilon} \), where \( e < \overline{\epsilon} \) ) to participate in the advertising campaign. The selected endorser will be required to declare (publicly) his or her valuation for the quality of the new product. Let \( s \) denote the declaration for the quality, which is a continuous variable between \([0, \infty)\). The firm will then pay the selected endorser a remuneration \( w \) for announcing \( s \).

It is assumed that there is no information asymmetry between the firm and the potential endorser, and that the firm has absolute bargaining power over the endorser (namely, \( e, s \) and \( w \) are all unilaterally determined by the firm). Hence, the endorser’s celebrity and quality declaration can be viewed as the firm’s signaling of product information to consumers, and the remuneration is the firm’s cost of signaling.

There is no fixed production cost. The marginal costs for producing the high and low quality products are \( c_H \) and \( c_L \) respectively, where \( c_H > c_L \). The profit function of the firm whose product quality is \( i \) \((i \in \{H, L\})\) can then be written as \( \pi_i = p - c_i - w \), where \( p \) is the product price.

2.1 The Sequence of the Game and the Equilibrium Concept

The sequence of the signaling game is as follows. Firstly, the \( q_i \)-quality firm \((i \in \{H, L\})\) selects \( e \in [e, \overline{\epsilon}] \), and bargains with the selected endorser to generate a contract \((s, w)\). The firm then sends the message \((e, s)\) to consumers. Finally,
consumers make purchase decisions. We further suppose that the government is able to make an intervention in the first stage.

We consider the pure-strategy perfect Bayesian equilibrium (PBE) as the solution concept. Let $\mu(e, s) = \Pr(q_H | (e, s))$ be a consumer’s posterior belief on the advertised product perceived to be of high quality. The pure-strategy perfect Bayesian equilibrium (PBE) should satisfy the following conditions on beliefs $\mu(e, s)$:

1. The firm’s strategy is optimal given the consumers’ optimal purchase decisions.
2. The belief $\mu(e, s)$ is derived from the firm’s strategy using Bayes’ rule where possible.
3. The consumers’ purchase decisions are optimal given $(e, s)$.

### 2.2 Consumer Preferences

Suppose that consumers acquire product information merely from the endorsement advertising. After receiving the messages $(e, s)$, consumers exposed to the advertisement infer the product quality and then form a belief $\mu(e, s)$ on the advertised product to make their purchase decisions.

Let $U_H$ and $U_L$ represent a consumer’s utility when she/he consumes the product of quality $q_H$ and $q_L$, respectively. It is assumed that $U_H > U_L$. The expected gross utility of a consumer purchasing the product is given by $EU(e, s) = \mu(e, s)U_H + (1 - \mu(e, s))U_L$. It is further assumed that the reservation utility of not purchasing the product is zero. Thus, the net surplus of a representative consumer, denoted by $V(e, s, p)$, can be formulated as follows:

$$V(e, s, p) = \begin{cases} EU(e, s) - p & \text{if she buys the product;} \\ 0 & \text{if she does not buy.} \end{cases}$$

(1)

where $q$ and $p$ denote the perceived quality level and the price of the product respectively. Assume that the consumer who is indifferent between buying and not buying will purchase the advertised good. Hence, consumers decide to buy this product if $EU(e, s) \geq p$. 

2.3 The Endorser’s Utility Function

Suppose that there are two types of potential endorsers, \( e \) (low celebrity) and \( \bar{e} \) (high celebrity), available to be chosen by the advertising firm. The reservation utility of a potential endorser with high celebrity \( \bar{e} \) is denoted as \( V_{\bar{e}} > 0 \). In addition, we denote by \( V_e \) the reservation utility of an endorser with low celebrity \( e \) and normalize it to zero, that is, \( V_e = 0 \). It is assumed that a high-celebrity endorser cares about his or her public image more than a low-celebrity endorser does. Specifically, it is assumed that an opportunity cost \( k \cdot \max \{ (s - q_i), 0 \} \) is incurred for the endorser with high celebrity to declare \( s \) under the contract \((s, w)\), where \( k > 0 \) and \( i \in \{H, L\} \). The larger \( k \) is, the greater is the extent to which the potential endorser with high-celebrity cherishes his or her reputation. By contrast, there is no cost for the low-celebrity endorser to declare any qualities publicly. The endorser’s net surplus, denoted by \( U^e \), can be written as:

\[
U^e = \begin{cases} 
    w - k \cdot \max\{ (s - q_i), 0 \} & \text{if her / his celebrity is high} \ (e = \bar{e}) \\
    w & \text{if her / his celebrity is low} \ (e = e) 
\end{cases}
\] 

(2)

Hence, the high (low) celebrity endorser accepts only the contract \((s, w)\) in which \( w - k \cdot \max \{ (s - q_i), 0 \} \geq V_{\bar{e}} \) \((w \geq 0)\).

3. Equilibrium Analysis

To avoid trivial cases, we assume that \( k \geq (U_H - U_L)/(q_H - q_L) \). Let \( \rho \) \((\rho \geq 0)\) denote the rate of government’s punishment on the endorser’s exaggerations of product quality. So the endorser bears a risk of paying a penalty \( \rho \cdot \max \{ (s - q_i), 0 \} \) for deceptive endorsements when \( \rho > 0 \).

To focus the effects of government’s intervention on market efficiency, we consider the following cases.

**Case 1:** \( U_H - c_H \geq V_{\bar{e}} \) and \( U_H - U_L \geq V_{\bar{e}} \)

In this case, the surplus of high-quality product is sufficiently high so that no false or deceptive endorsement occurs even there is no government’s intervention. A (least-cost)
separating equilibrium exists. In the equilibrium, the high-quality (or the low-quality) firm reveals his true type by hiring a high-celebrity (or low-celebrity) endorser to declare true quality \( s = q_H \) (or \( s = q_L \)).

**Proposition 1:** If \( U_H - c_H \geq V_\sigma \) and \( U_H - U_L \geq V_\sigma \), then there exists a separating equilibrium. In the equilibrium, the high-quality firm chooses \((\overline{e}, s = q_H)\) and the low-quality firm chooses \((e, s = q_L)\); the consumers’ beliefs \( \mu(\overline{e}, s) = 1 \) for \( s \geq q_H \), and \( \mu(e, s) = 0 \) otherwise.

**Proof:**

Given the consumers’ beliefs described in Proposition 1, the high-quality firm will not deviate because \( U_H - c_H - V_\sigma \geq U_L - c_H \). Likewise, the low-quality firm will not deviate as \( U_L - c_L \geq U_H - c_L - k(q_H - q_L) - V_\sigma \) holds for \( k \geq (U_H - U_L)/(q_H - q_L) \).

Note that the presence of high celebrity endorser’s high opportunity cost functions as a strong signal in this case. The market achieves efficiency itself, and no government intervention is needed.

**Case 2:** \( U_H - c_H < V_\sigma \)

Note that in the case, the surplus of high-quality product is less than the high-celebrity endorser’s reservation utility. Hence, both types of firms will not invite the high-celebrity endorser. Let us further consider the following two situations with respect to the relative size of \( c_H \) (i.e., \( \lambda U_H + (1 - \lambda)U_L > c_H \) and \( \lambda U_H + (1 - \lambda)U_L < c_H \)).

(I) \( \lambda U_H + (1 - \lambda)U_L > c_H \):

There exist only pooling equilibria in which multiple deceptive endorsement advertisements occur in the absence of regulations. In order to achieve market efficiency, the government should enforce the legal liability on the endorser involved in false or misleading endorsements.

If the punishment is sufficiently severe, i.e., \( \rho \geq (U_H - U_L)/(q_H - q_L) \), there exists a separating equilibrium in which both types of firms invite the low celebrity endorser (i.e., \( e = e \)) and make honest claims for product quality. The following proposition summarizes the above findings.

**Proposition 2:** Suppose that \( U_H - c_H < V_\sigma \) and \( \lambda U_H + (1 - \lambda)U_L > c_H \).
In the absence of regulations, there exist only the pooling equilibria in which multiple deceptive endorsement advertisements occur.

If the government intervenes and \( \rho \geq (U_H - U_L)/(q_H - q_L) \), there exists a separating equilibrium in which the high-quality firm chooses \((e, s = q_H)\) and the low-quality firm chooses \((e, s = q_L)\). The consumers' beliefs \( \mu(e, s) = 1 \) for \( s \geq q_H \), and \( \mu(e, s) = 0 \) otherwise.

**Proof:**

(1) Clearly, given \( U_H - c_H < V_e \), no firms choose \( \overline{e} \). As a result, both types of firms choose \( e \). Further, given \( \lambda U_H + (1 - \lambda)U_L > c_H > c_L \), both types of firms will require the invited endorsers declare high quality because there is no cost for untrue claims in the case of no regulation.

(2) Let \( s(H) \) and \( s(L) \) denote the endorser’s product declarations for the high- and low-quality firm respectively. In the presence of government intervention, given the consumers’ beliefs described in Proposition 2, it is easy to see that the pairs \((e, s(H) = q_H)\) and \((e, s(L) = q_L)\) satisfy the following incentive compatibility constraints for high-quality and low-quality firm, respectively:

\[
U_H - c_H - \rho \cdot \max\{(s(H) - q_H), 0\} \geq \max\{(s(L) - q_H), 0\},
\]

\[
U_L - c_L - \rho \cdot \max\{(s(L) - q_H), 0\} \geq \max\{(s(H) - q_L), 0\}.
\]

(II) \( \lambda U_H + (1 - \lambda)U_L < c_H \):

Clearly, in this case the high-quality firm will exit the market when there is no regulation. This “adverse selection” phenomenon occurs in the advertising market flooded with only the low-quality firm type engaging in false or misleading endorsement advertising. Similar to Proposition 2(2), the government should enforce the legal liability on the endorsers to improve market efficiency.

**Proposition 3:** If \( U_H - c_H < V_e \) and \( \lambda U_H + (1 - \lambda)U_L < c_H \),

(1) In the absence of regulations, the high-quality firm exits the market while the low-quality firm engages in endorsement advertising.

(2) If the government intervenes and \( \rho \geq (U_H - U_L)/(q_H - q_L) \), then there exists a
separating equilibrium in which the high-quality firm chooses \((e, s = q_H)\) and the low-quality firm chooses \((e, s = q_L)\). The consumers’ beliefs \(\mu(e, s) = 1\) for \(s \geq q_H\), and \(\mu(e, s) = 0\) otherwise.

**Proof:**

1. Explicitly, the high-quality firm exits the market under both the conditions \(U_H - c_H < V_e\) and \(\lambda U_H + (1 - \lambda)U_L < c_H\).

2. Similar to the proof for Proposition 2 (2).

Proposition 2 and 3 indicate that more attention should be paid to the case where the surplus of high-quality product is relatively low. Under such a situation, the government needs to impose a severe penalty on deceptive endorsers to bring about honest endorsements.

### 4. Conclusion

This paper provides a theoretical model to analyze endorsement advertising. It is shown that the government’s intervention is not needed if the surplus created by the high-quality firm and the consumers’ valuation on the high-quality product are sufficiently high. By contrast, when the surplus created by the high-quality firm is relatively low, there exist multiple false or misleading endorsements, and even worse, the high-quality firm will exit the market if the unit cost of producing the high-quality goods is very high. Therefore, the government should impose legal liability on endorsers to prevent from false or misleading endorsements. Such an intervention can also improve efficiency.

Here, we do not consider the social costs incurred due to government intervention. Further, our analysis rests on the assumption that there is no asymmetric information between the firm and the endorsers. Although this assumption may not be able to describe all the cases of endorsement advertising occurred, it could be moderately justified by the case of the singer Pat Boone (see footnote 8) and by a common perception that it is easier for endorsers to get product information than for consumers.
Indeed, our model has some limitations in dealing with the cases that there exists asymmetric information about product quality between the firm and endorsers. Nonetheless, it is applicable in the situations where the regulation authority is able to judge whether endorsers know the real product quality before making statements in an ad (e.g., the case of the celebrity Wen Cui Pin in Taiwan, see footnote 13). If the assumption does not hold, the model needs to be appropriately modified. A more reasonable model may consider setting the probability of learning the real product quality by the high-celebrity endorser is higher than that by the low-celebrity endorser under the same efforts of investigating product quality.

Despite the limitations mentioned above, our results shed some light on the necessity of government intervention on endorsers involved in untrue endorsement advertising. Beyond this analysis, one may also consider other relevant extensions, such as consumers are allowed to resort to civil damage compensation whenever a false or misleading endorsement causes them financial injury, and the possibility of repeat purchases.
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英文部分


Endorsement Advertising and Legal Liability


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薦證廣告與法律責任

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本文研究虛偽不實或引人錯誤的薦證廣告的法律責任，是否有其必要延伸至薦證者。我們建立一理論模型，假設一產品廠商行銷產品係透過僱用一名人薦證者對於該產品之品質做公開的宣稱。研究結果顯示，若高品質廠商所創造的市場價值很高且消費者對高品質產品的評價也很高時，則政府無須介入市場干預。相反地，若高品質廠商的市場價值相對地低時，則市場將存在多種虛偽不實之薦證廣告；尤有甚者，當高品質廠商的單位生產成本非常高時，其將退出市場。在此情況下，政府有其必要介入市場，針對不實廣告的薦證者施以法律責任，以改善市場的效率。

關鍵詞：薦證廣告、虛偽不實或引人錯誤的廣告、名人薦證者、產品品質、傳訊

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