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Margaret Jones
mktgsci@cba.ufl.edu
Phone: (352) 352-846-3707

July 15, 2007

MS # 7119.0

Type: Regular

To: Noriaki Matsushima

E-mail: nmatsush@kobe-u.ac.jp

cc: ishibash@econ.aoyama.ac.jp;

Manuscript: "The Existence Of Low-End Firms May Help High-End Firms"

Thank you for submitting your manuscript to *Marketing Science*.

The review team has completed its work. The Area Editor (AE) report and two reports (#1, and #3) have arrived for your manuscript.

I highly value their opinions. The review team has the expertise and experience to evaluate your manuscript. The review team has carefully read the manuscript and put considerable effort into their evaluations. You will find their thoughtful evaluations attached to this letter.

The news on this manuscript is mixed. The review team finds potential in the manuscript but also expresses some concerns. The AE report summarizes these concerns and recommends revisions.

The AE report is excellent in detail and direction. Beyond nicely summarizing the comments in the reviewer reports, the report clearly outlines the AE's own eloquent assessment of the strengths and weaknesses of the manuscript.

The AE report recommends revisions.

Given the AE recommendation, *Marketing Science* invites you to submit a revised manuscript that substantially alleviates the primary concerns of the review team as directed by the AE. The length of the revised manuscript should be commensurate with its contribution.

We hope you decide to revise this manuscript.

The usual caveats must accompany this invitation. Some of the concerns expressed by the review team involve missing information and the uncertain results of additional analyses. These factors make it difficult to forecast the outcome of a revision with complete certainty. Our goal is to make a decision as early in the review process as possible and keep future revisions to a minimum. If you decide to revise this manuscript, you need to make your best effort now. Moreover, we hope to either make a commitment to publish or reject the manuscript on the next round.

Accompanying revised manuscripts should be a letter of response OF REASONABLE LENGTH to the review team that provides information to help satisfy the review team's concerns regarding possible deficiencies in the manuscript. We will not publish the letter to the review team. Response letters often help authors keep the manuscripts free of distracting details and defensive arguments.

Please respond to all of the reviewer reports. However, the revision will only go back to reviewer # 1 and reviewer #3.

To help make revisions more successful, we try to provide specifics. The AE report already does that well.

The AE perspicuously provides these recommendations in several main areas. For example,

- Although the Cournot model is sufficient for publication, it would be useful to provide some results allowing Bertrand competition.
- Please provide additional details, explanations and resolve ambiguities.
- Please provide more precise implications and insights.
- Please provide revisions to improve the other specific weaknesses identified in the AE report.

Please follow the other AE report recommendations or provide a response that details why you decided not to follow those recommendations.

Regarding readability, please make the presentation completely limpid. Clarify the numerous assertions and analyses that the review team found to be misleading or confusing. Note that this task can be accomplished by clarifying the text, elaborating in the letter of response to the review team, moving material to a technical appendix or all three.

Again, please remember that responses to specific questions and the details of ancillary analyses need not be in the text of the manuscript but, rather, in the response letter to the review team. Unless these analyses produce new results, please only mention the analyses in the body of the manuscript and report the details in a letter.

Future correspondence concerning this manuscript should refer to manuscript number 7119.1. If you have any questions about how to proceed, please call our office at (352) 352-846-3707 or e-mail us at mktgsci@cba.ufl.edu.

Finally, for future submissions, please remember that all manuscript submissions to *Marketing Science* should be electronic and accompanied by a submission form. Please see our website at <http://www.marketingscience.org> for details.

Our records show that manuscript # 7119.0 arrived on April 27, 2007. Hence, your turnaround time (start date to final decision) was 80 days.

We consider your turnaround time to be acceptable.

Reviewer #1 took 30 days. Reviewer #3 took 8 days. We waited 25 days for another review. The AE took 9 days. After receiving the AE report, my office took 10 days. The remaining time was initial processing.

We strongly encourage you to revise this manuscript and we very much look forward to reading the hopefully final version.

Thank you again for considering *Marketing Science* as an outlet for your research.

Best Regards,

A handwritten signature in black ink, appearing to read 'Steve' with a stylized flourish.

Steven M. Shugan
Editor-in-Chief
Marketing Science

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As a condition of final acceptance of a paper for publication in *Marketing Science*, the author(s) must indicate if their paper is posted on a working paper website, other than their own. They are responsible for assuring that, if any part of the paper has been copyrighted for prepublication as a working paper, the copyright can and will be transferred to INFORMS when the paper has been accepted. This includes both print and electronic forms of the paper. On acceptance, the text, or any link to full text, must be removed from working paper websites, other than the author's own website.

GENERAL COMMENTS TO AUTHORS FOR REVISIONS

1. **Accompanying revised manuscripts should be a letter of response OF REASONABLE LENGTH to the review team that provides information to help satisfy the review team's concerns regarding possible deficiencies in the manuscript. We will not publish the letter to the review team.**
2. Regarding readability, please make the presentation completely limpid. Clarify the numerous assertions and analyses that the review team found to be misleading or confusing. Note that you can accomplish this task by clarifying the text, elaborating in the letter of response to the review team, moving material to a technical appendix or all three.
3. It is often possible to make manuscript shorter by having two appendices. One appendix could contain essential technical material and the second appendix could contain more detailed and mechanical material. We would publish the second appendix on the *Marketing Science* website, upon acceptance of the manuscript.
4. Please remember that responses to specific questions and the details of ancillary analyses need not be in the text of the manuscript but, rather, in the response letter to the review team. Unless these analyses produce new results, please only mention the analyses in the body of the manuscript and report the details in a letter.
5. When doing a revision, please keep the following in mind. Obviously, the extent of the analysis and conditions examined always limit the conclusions of any manuscript. Please avoid speculation in the body of the manuscript concerning how findings might differ given violations of the assumptions or speculations about the outcomes of unfinished analyses. It is better to place speculative statements of this kind in the future research section. Provide the appropriate caveats and avoid claiming more generality than actually shown. State the contributions in easily understood language and with some modesty. Then, suggest what still needs to be done in the future. As noted, in the future research section, manuscripts may speculate about which assumptions or conditions in the analysis are critical to the conclusions as well as conditions when future research might find different results.
6. Some manuscripts rely on unpublished sources. We have had problems with the availability of cited working papers and links to websites. They have disappeared shortly after publication of the citing article. Although citations are at the author's discretion, as a matter of journal policy we do NOT require or encourage the citing of unpublished working papers and websites. It is best to cite ONLY research that is permanently archived, available to the public and not subject to substantial changes. Copies of critical websites should be included in an appendix. Please avoid citing articles or any other research that is either in progress (i.e., subject to change) or unavailable to the public -- unless it is appropriate to assign credit to

those sources. Finally, it is necessary to obtain permission from the authors of working papers before quoting or citing them.

Area Editor Report for “The Existence of Low-End Firms may help high end firms”

The objective of this paper is to make a general point about how the existence of low end firms can lead to increased profits for high end firms in a market where there is one segment of consumers that values the high end products and another segment that is indifferent between high end and low end products. While the point is interesting, there are number of issues that the authors need to address.

1. Both reviewers raise concern about the suitability of a Cournot model to illustrate the phenomenon. As pointed out by Reviewer 1 “it is more appealing to use price as the strategic variable” and Reviewer 2 notes that it would be interesting to know whether Cournot competition is needed for the result identified in the paper. I would like the authors to investigate whether the idea can be presented in a more general framework.¹ The authors can make a stronger contribution by generalizing the result or by showing that it obtains in both a Cournot and Bertrand setting. If the authors cannot show the result in a Bertrand setting, then the authors need to find examples to motivate the analysis where quantity-setting is legitimate (the examples in the paper do not seem to fit the Cournot model).
2. As noted by Reviewer 1, the authors need to be more explicit in explaining the assumptions and justifying them. For example, see point 1 under Major Concerns by Reviewer 1. Also the authors assume that $a < \frac{1}{2}$ (page 6) yet this seems to be a result (page 9). Clearly reducing a increases the price sensitivity of the low-end market. Thus, it seems that minimum level of price sensitivity of the low-end market is a necessary condition for the result to hold. The authors need to fully explain all constraints imposed on the demand functions for the Cournot analysis. As noted by Reviewer 3, the paper will be strengthened if the authors identify general conditions on the demand functions (for low and high end products) for the result to hold.
3. The authors need to better explain their results and what drives them. In particular, the authors need to better explain how the strategic interaction between the 2 high-end firms contributes to the findings (see Review 1, page 3, point 5).
4. The authors illustrate their result where the number of low end firms is sufficient to drive the price in the low-end market to zero. The authors state “the result holds even if there is only one producer of l ” (page 9). The result for one firm needs to be included in the paper.
5. As noted by Reviewer 3, the contribution of the paper in relation to Chen and Riordan (2006) needs to be explained.
6. Point 6 by Reviewer 3 should be addressed. What is interesting is not that the high end firms raise prices when there is entry in the low end of the market but that the profits of high end firms increase.
7. Point 7 by Reviewer 3 should be addressed. The link between the need to establish a status-good image and the analysis in the paper is not clear.

The authors need to provide a complete set of responses for the reviewers and explain how the revision addresses the issues identified in the reviews.

¹ The idea of removing a group of low-end consumers in a differentiated Bertrand framework to benefit competing high end sellers is central to Coughlan et al (2005), IJRM, 22(1), 61-86.

REVIEW 1

MARKETING SCIENCE
Reviewer Manuscript Evaluation Form

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ANSWERS 1 THROUGH 7 ARE GIVEN TO THE AUTHOR.
Add lines when necessary.

MANUSCRIPT #: 7119.0 _____

REVIEWER#: 1 _____

1. Is the topic of this manuscript important? If not, why?

Yes. The general intuition that competition, with the help of consumer segmentation, may help certain firms to earn higher profits is appealing. However, it is not really new in the marketing and economics literature and, as I will try to comment below, the model in this paper has problems that render its finding uninteresting.

2. Does the manuscript provide sufficient information to make an evaluation? If not, what information is needed?

Yes. However, it would be interesting to see how the result is derived if there is only one firm in the lower end market. The paper says that the results do not change (p. 9, footnote 12), but this must require very different derivations from what the paper is currently assuming for the many firm case (i.e., it assumes that $p^l = 0$, p. 8).

3. What are the strengths and weaknesses of this manuscript?

Strengths:

REVIEW 1

- (1) The basic rationale has good analytical appeal. That is, the lack of competition may motivate firms to sell to more (lower end) consumers, thus putting a downward pressure on its price. If the gain in demand is not sufficient, then the firms lose profits eventually.
- (2) I like the conceptual front with detailed briefing about intuitions.

Weaknesses:

Major concerns

- (1) A few critical solutions are *assumed*, not derived optimally. One such case is the constraint put on parameter a . Footnote 10 on p. 6 says that a is assumed to be higher than $1/3$ “to simplify the analysis.” That is not true – this assumption is *fundamental* for the model. Without this assumption, the two firms in Case I do not necessarily have to sell to both high-end and low-end markets. That is, contrary to the underlying analysis in Footnote 11, selling to high-end market only could be equilibrium. This will render moot the basic rationale the paper is trying to capture (i.e., without competition, the two firms want to sell to both markets).
- (2) The other assumption that drives the result is that price is zero in the lower end market if there are low-quality firms (p. 8). This assumption obviously makes the lower end market not profitable for the two high-quality firms. As a result, they have to focus on the higher end market. This is precisely the intuition the paper is trying to derive analytically. It would have been more appealing if the firms are allowed to optimize in a reasonable parameter space that is not constrained arbitrarily. Moreover, this assumption obviously makes the national brand-store brand example invalid.
- (3) The Cournot framework is not appropriate for the model. First, the paper depends on consumer segmentation (which is based on willingness to pay for quality, a factor for pricing strategies) to derive the results and on the two firms’ pricing patterns to explain its intuition. It is thus more appealing to use price as the strategic variable. Second, pricing is a reasonable discrimination mechanism among consumer segments that differ in willingness to pay, but quantity is not. It is difficult to imagine how quantity decisions can be implemented to let consumers self-select. Quantity is possible as a discrimination tool if the firms can identify the segments and sell to them separately. In this sense, a Cournot framework that relies on market clearing prices is not as managerially appealing as Bertrand.
- (4) Linear demand function is used often in analytic models. However, given that the

REVIEW 1

assumed functional form for the higher end market ($D^H(p^h)$, see p. 6)) and that for the lower end market ($D^L(p^L)$) are so specific but different (their parameters are constrained without any substantive reasoning), there are needs to (i) explain what are the potential reasons these two demand functions differ in this way, and how this is consistent with your national brand-store brand example, and (ii) examine how much the results are driven by these functional assumptions.

- (5) The paper did not pay sufficient attention to the role that competition between the two higher end firms plays. Since the results do not really hold for the monopoly case, more discussion and analysis need to be provided to illustrate how the strategic interactions between two firms contribute to the findings. This is as important as the interaction between firms in the higher end market and firms in the lower end market. This limitation needs to be made clear at the beginning of the paper.

Other comments

- (6) Please provide the derivation when there is only one firm in the lower end market.
- (7) The most essential difference between the two segments of consumers is their willingness to pay for quality. This is not sufficiently highlighted in the paper, but can be seen from the two inverse demand functions on p. 6 for the same product. Assume the same product p^h as in Case I. The higher end market demand is:

$$D^H(p^h) = \begin{cases} 0, & \text{if } p^h > 1 \\ 1 - p^h, & \text{if } p^h \leq 1 \end{cases},$$

while the lower end market demand is:

$$D^L(p^h) = \begin{cases} 0, & \text{if } p^h > a \\ b(1 - p^h/a), & \text{if } p^h \leq a \end{cases}.$$

4. Do the authors achieve their stated contribution (see the submission form)?
If not, what do they still need to do?
(For fast track submissions, please stress remedies with deletions over additions.)

No.

5. Does this manuscript make mistakes? If so, are they correctable? Would removing problematic sections be a solution?

REVIEW 1

See comments above.

6. Would the stated contribution (assuming it was achieved) be sufficient for publication? If no, why? (E.g., Is the topic uninteresting? Are the findings already known? Are the findings trivial?)

Yes, but it needs to be established in a more general way and ideally comes with more careful empirical support.

7. Are revisions necessary? If so, what revisions need to be made?

If the paper is revised, the model may need to be reworked in the following aspects: (1) use with a price competition model, starting with definition of consumer utility on quality and price, then derive demand analytically instead of assuming it; (2) examine more structured cases (i) there is either one or two firms in the higher end market, (ii) there is either one or multiple firms in the lower end market; (3) derive optimal solutions wherever possible (such as in the lower end market). If there is the need to constrain parameter space, give substantive reasons; (4) provide more careful empirical examples (national brand vs. store brand is a good start, but they need to be more consistent with the analytic model). Overall, the paper needs to be enriched significantly for a journal like *Marketing Science*.

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For example, if your expertise involves the methods rather than the problem area, you may restrict your review to whether the manuscript properly employed the methods with sufficient precision to justify the conclusions. If your expertise is only in the substantive domain (related to the conclusions), you may restrict your review to the evaluation of the relative novelty and potential impact of the results.

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ANSWERS 1 THROUGH 7 ARE GIVEN TO THE AUTHOR.
Add lines when necessary.

MANUSCRIPT #: 7119.0 _____

1. Is the topic of this manuscript important? If not, why? (For example, is the research question interesting and important?)

Moderately important

2. Does the manuscript provide sufficient information to make an evaluation? If not, what information is needed?

Yes

3. What are the strengths and weaknesses of this manuscript?

Strength – it is very clear about what the paper accomplishes

Weakness – very restrictive assumptions

4. Would the stated contribution (assuming it was achieved) be sufficient for publication? If no, why?

No, I do not think so because the paper does not strike me as a path-breaking paper of the type *Marketing Science* usually publishes.

5. Do the authors achieve their stated contribution (see the submission form)? Yes.

However the results derived are based on rather restrictive assumptions. It is not clear whether these results would hold under more general assumptions.

If not, what do they still need to do?

(For fast track submissions, please stress remedies with deletions over additions.)

6. Is the actual current contribution sufficient for publication? (For example, are the findings important? Are the findings new?)

Not important enough for publication in *Marketing Science*.

7. Does this manuscript make mistakes? If so, are they correctable?

Not that I noticed.

8. Are revisions necessary? If so, what revisions need to be made? NOTE: YOU NEED NOT PROVIDE THIS INFORMATION FOR FAST TRACK SUBMISSIONS.

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Please answer the following questions on this document.
ANSWERS 1 THROUGH 7 ARE GIVEN TO THE AUTHOR.
Add lines when necessary.

MANUSCRIPT #: 7119.0 The existence of low-end firms may help high-end firms

1. Is the topic of this manuscript important? If not, why?

It is interesting as it shows the counter-intuitive result that competitive entry may help all the existing firms.

2. Does the manuscript provide sufficient information to make an evaluation? If not, what information is needed?

Yes.

REVIEW 3

3. What are the strengths and weaknesses of this manuscript?

Strengths: short paper, counter-intuitive result.

Weaknesses: not very complete analysis and not that much intuition provided for the result.

4. Do the authors achieve their stated contribution (see the submission form)?

If not, what do they still need to do?

(For fast track submissions, please stress remedies with deletions over additions.)

Yes, if the abstract is taken as contribution statement.

Since no empirical evidence or clear examples of the reality to which theory applies are provided, the theory can't really be called positive. This is not really a problem with the paper, but rather a problem with the contribution statement ("New positive theory").

5. Does this manuscript make mistakes? If so, are they correctable? Would removing problematic sections be a solution?

The manuscript is technically correct.

6. Would the stated contribution (assuming it was achieved) be sufficient for publication? If no, why? (E.g., Is the topic uninteresting? Are the findings already known? Are the findings trivial?)

I think a well analyzed result about when new entrants benefit existing firms deserves a publication. Please see detailed comments for suggestions of additional analysis.

7. Are revisions necessary? If so, what revisions need to be made? NOTE: YOU NEED NOT PROVIDE THIS INFORMATION FOR FAST TRACK SUBMISSIONS.

Yes, please see the detailed comments below.

If you wish, you may attach a page or two of additional comments for the authors. These comments may include points on specific pages. Identifying needed corrections is useful.

NOTE: YOU NEED NOT PROVIDE THIS INFORMATION FOR FAST TRACK SUBMISSIONS.

Comments on “The Existence of low-end firms may help high-end firms”

The main contribution of the paper is in showing how entry of low-end firms may increase the profits of competing high-end firms. I like this counter-intuitive result, but I think the authors should explore more deeply under what conditions it holds and explain the relative contribution over Chen and Riordan (2006? See link in comment 4 below). Below I summarize the comparisons/questions to answer in this regard as well as suggest some other improvements.

1. Cournot equilibrium is not very frequently used in marketing literature. Moreover, it does not seem to fit the examples provided, such as computers, and packaged goods. Furthermore, it would be interesting to know whether Cournot competition is essential for the increasing-profits result. To achieve this, a model could be modified to include differentiated-Bertrand competition. For example, a la Hotelling (1929) or with segments of loyal and switcher consumers. I suspect the latter would result in necessarily lower profits from competitor entry. If no Bertrand competition model can be found that preserves this result, the applicability of Cournot competition must be discussed in the introduction and as a condition to the result.
2. Can something more general be said about the shape of demand functions that would lead to higher profits of high-end firms? Perhaps a general condition can be derived on demand functions for high- and low-end products (without linear assumption).
3. Is it possible to show that Cournot competition for one undifferentiated product would have decreasing profits in the number of firms?
4. The intuition for the result should be discussed better. It would be interesting to compare the result to increasing profits with competitive entry in Chen and Riordan spokes model (see: <http://stripe.colorado.edu/~cheny/research/Spokes-Final-April06.pdf>, as far as I know, it is published in Economic Journal). I don't really understand the intuition in that paper either.
5. I doubt that business PC segment is perfectly competitive while home PC is not. I would think that the competition is actually higher for home PC segment. A better example would be good.

REVIEW 3

6. There is too much emphasis in the manuscript on the result that prices increase with competitive entry. This result is not new at all: even without the papers already cited in the manuscript, one can clearly see that if low-end firm enters the market, a high-end firm may concentrate on the high-end segment and raise prices. See also a discussion in Stiglitz (JPE 1987).
7. I have no idea how the results in the paper suggest that the high-end firms should try to establish status-good image (third para on page 3). The paper has nothing to do with socially-dependent utility functions.