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Importance-Performance Analysis: Common Misuse of a Popular Technique
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Importance-Performance Analysis:

Common ~~Misconceptions about~~ Misuse of a Popular Technique

In recent years, importance-performance analysis (IPA) has gained respectable popularity in the wider management research area. To date, these authors' contribution has been cited 2620 times (Google Scholar, accessed on February 4th, 2016), with annual citations and IPA applications steadily increasing.

The original methodology was introduced in 1977 by John A. Martilla and John C. James in a short *Journal of Marketing* article set within the context of the automobile industry. By comparing the importance and the performance of a series of personal car attributes, these authors set up a rather simple framework to guide allocation and/or reallocation of scarce company resources, with the final goal to enhance consumer satisfaction (Figure 1).

PUT IN FIGURE 1 HERE.

From the mid-eighties of the last century onwards, IPA studies have started to focus on advancements of the original methodology. The motivation for such studies is reasonable, because the technique has, undoubtedly, significant practical appeal. A negative aspect of this development is, however, that analysts today face the problem to choose from several competing IPA variants. To make it worse: Some variants may come up with misleading recommendations or even nonsense. ~~As scholars and market researchers who have devoted a significant amount of time to this particular tool, we are thus writing this note to help future IPA applications stop making naïve and wrong conclusions.~~

As we believe, the most elementary shortcoming of contemporary IPA research is that *importance* is rarely being regarded as a multidimensional concept. ~~The most elementary~~

~~problem of contemporary IPA research is rooted in a limited understanding of the concept of importance.~~ This is despite the fact that this topic has already been debated by James H. Myers and Mark I. Alpert in the marketing literature in the late 60-ies and 70-ies of the last century (1968, 1977). In particular, many IPA studies seem to be unaware of the differences between stated and derived importance measures. Both types of measures are, however, widely used in IPA, thus creating the belief as if they can be used exchangeably. This is, however, not true.

To back up our concern with empirical evidence, let us take a look at the following two IPA matrices (Figure 2). The first one has been created using stated importance measures (arithmetic means of respective importance ratings; 7-point direct rating scale: 1-less important, 7-very important), while the second one using derived measures (standardized regression coefficients; all significant at $p<0.001$; independent variables: attribute performance ratings; dependent variable: overall satisfaction with the airline, 7-point direct rating scale; $R^2=0.459$; $n=1024$). Both matrices are based on data from the same survey (personal interviews using a structured questionnaire; data available from the authors upon request). Grand-mean values of performance- and respective importance-scores were used to divide the matrices into four quadrants.

PUT IN FIGURE 2 HERE.

Even at first sight, one can easily conclude that the results significantly differ across the two IPA variants. For example, while stated-importance IPA recommends that the airline should *Keep up the good work* with regard to airline safety, derived-importance IPA tells that the current level of airline safety potentiates a *Possible overkill*. Accordingly, based on derived importance, the airline would do well to reallocate safety resources, in particular, in order to reduce prices! Diametrically different implications apply for the inflight experience across the

approaches, while only the airport experience and price are consistently categorized across both stated- and derived-importance IPA. Now, the question is: Which results are *true*?

If our focus remains on the safety attribute, then, on the one hand, the original framework of managerial implications seems reasonable if using the original approach to measuring importance introduced by Martilla and James (1977)—i.e. stated measures. Safety is certainly an important attribute; the airline performs well on this attribute; so let us *Keep up the good work*. On the other hand, the original implications are not reasonable when using derived importance measures. What might be the reason? Well, the reason is that the original IPA framework had not been developed for use with derived measures. Martilla and James did not use regression or correlation, so their managerial recommendations were not designed to apply to context-specific, transactional importance, but rather to stated, general importance. And, as our illustrative empirical example showed, these two importance dimensions can, but do not necessarily have to correspond. However, as our illustrative example also showed, the original IPA approach was not capable of identifying the service attribute which affects customer satisfaction most in the particular context investigated—i.e. the inflight experience. Product designers and marketers would, however, certainly like to know this information.

So, what are the lessons to learn from this illustrative example?

On the one hand, the practice of making absolute, categorical conclusions in IPA, based solely on the relative positioning of attributes, should be abandoned. In a case like ours, when, in fact, all examined attributes are *important*, it is not appropriate to talk in terms of *Possible overkill* or *Low priority*. There are only more or less *important* attributes, which is not uncommon in customer satisfaction studies. Accordingly, future IPA research should not blindly adhere to the original framework of recommendations by Martilla and James, but rather regard it as a set of general, textbook-type managerial guidelines. Instead, we recommend talking in terms of *higher* and *lower priority*.

On the other hand, as our illustrative example clearly showed, stated and derived measures *must not* be regarded as alternative measures for the same concept—i.e. importance. In some instances they may converge (i.e. price and airport experience), but this does not always have to be the case. For example, safety is certainly an extremely important airline attribute, but, if everything is fine with regard to safety, then this attribute does not necessarily exhibit a significant influence on airline satisfaction. Conversely, the inflight-experience is certainly a less important attribute as compared to safety, but, as our example showed, it might still exhibit a significantly stronger influence on airline satisfaction. Consequently, managerial implications in future IPA research must necessarily be adapted to the type of importance measure used, because stated and derived importance are obviously *apples and oranges*. Ideally, we should try to use both types of measures, because both carry useful, thoughbut different information.

References

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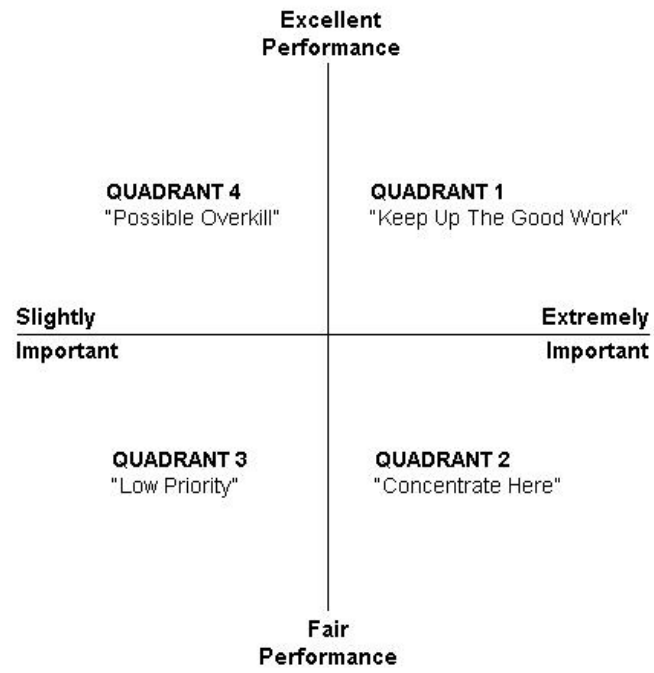
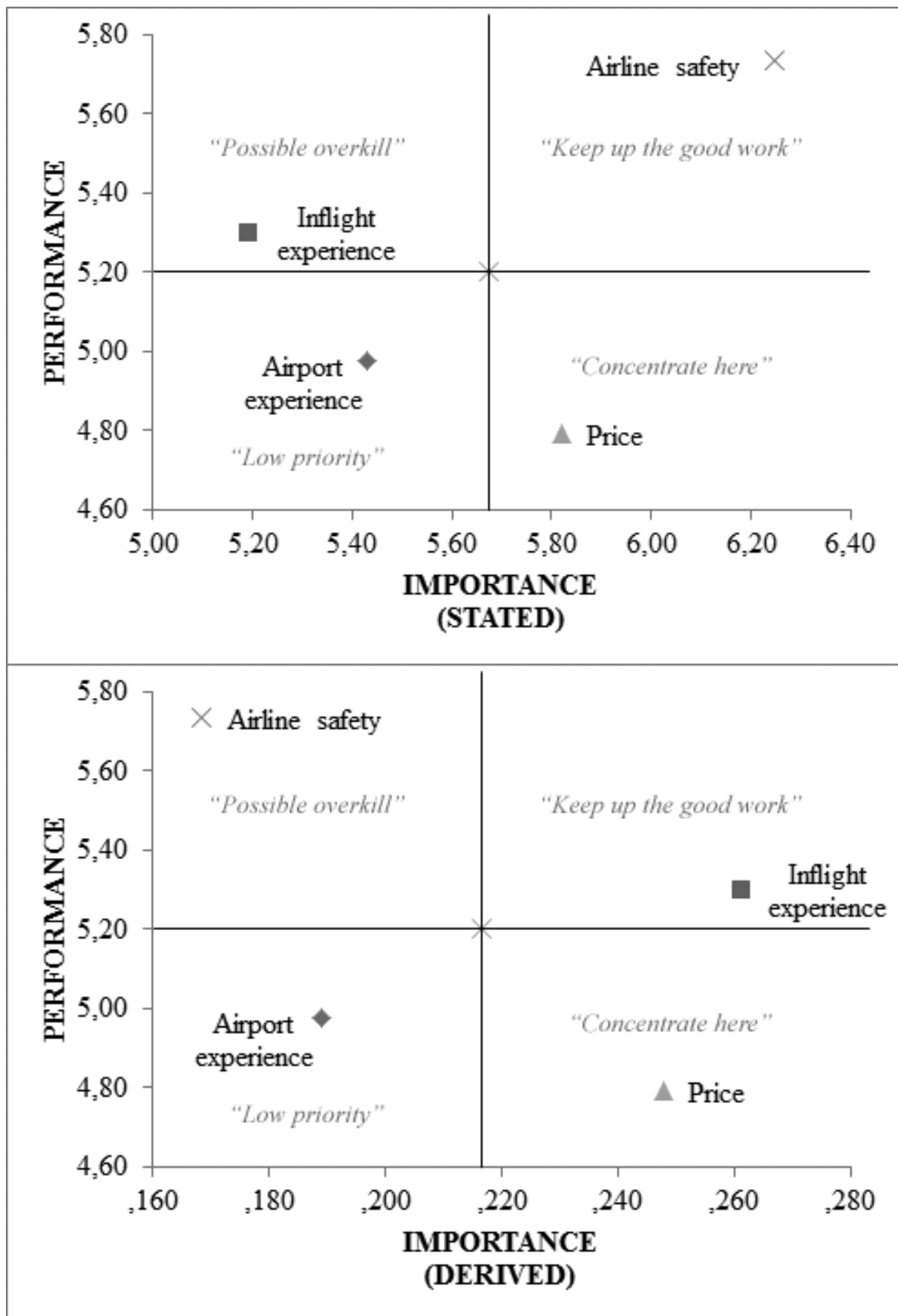**Figure 1** Original importance-performance analysis

Figure 2 Stated- versus derived-importance IPA