Marketing Scales Handbook

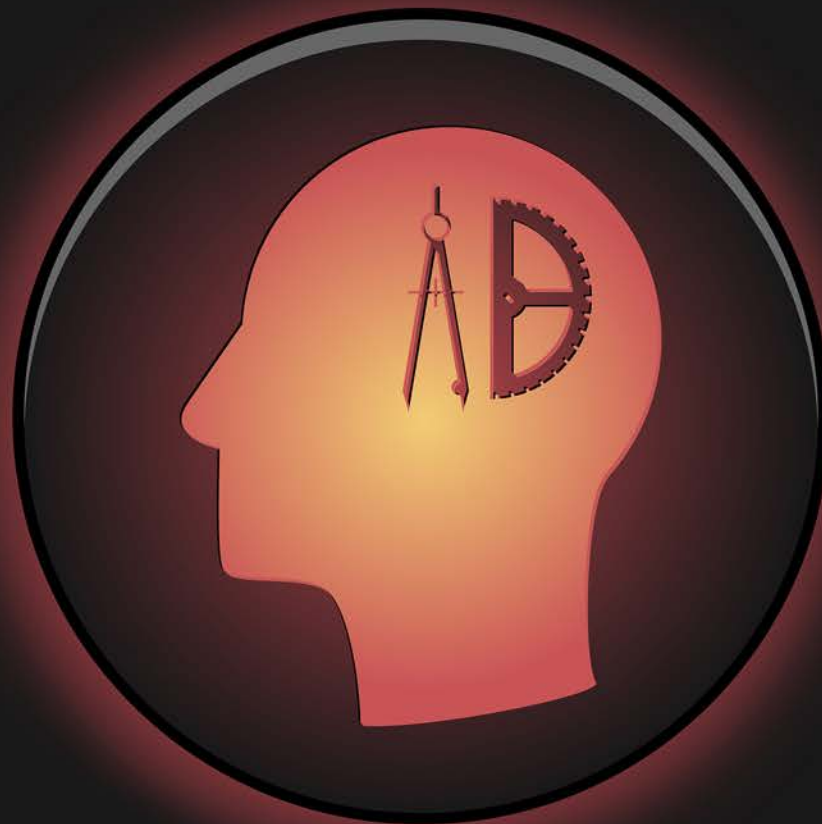## Scales

Handbook

Multi-Item Measures
for Consumer Insight Research
Volume 8

Gordon C. Bruner II

MARKETING SCALES HANDBOOK

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Multi-Item Measures
for Consumer Insight Research

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MARKETING SCALES HANDBOOK

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Volume 8

(sample version)

Gordon C. Bruner II

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Preface

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Books are not dead yet! Even though the database at the website (*www.MarketingScales.com*) contains several thousand reviews, interest in these compilations by individual researchers, students, and libraries continues. Given that, I have continued to create and publish the books rather than merely putting each new review in the database and moving on to the next review.

Structurally, this volume is similar to Volume 7. By that I mean I have consciously limited the number of reviews I conducted. To get the work done in a timely manner, some scales were ignored while others were treated as "see also" online if they were the same or similar to ones included in past volumes.

The effect of these limits is that the overwhelming majority of the reviews in this volume are of scales that have only been used once.   A small number have been used a couple of times during the review period. In a few other cases, I came across scales that were somehow missed in my past work. Since most scales are only known to have been used once, the reviews in this volume are about a page long and the book is able to fit nearly 400 scales into less than 500 pages.

As with Volumes 5, 6, and 7, one of the benefits of this ebook format is that it is much easier for users to find information of interest compared to the effort required with a paper book. A Table of Contents is included but users are urged to utilize the **Find** function that should be available in the software being used to read the book. Other potential benefits of the book being in a digital format are the ability to highlight passages that you consider important to your purpose, being able to leave comments for yourself on the pages of the text, and the ease with which scale items can be copied from a review and placed into a questionnaire. While I encourage researchers to use these scales, I urge them to credit those authors who created the scale or, in those cases where the origin is unknown, to at least cite some of the authors who have previously used it. While getting permission to use another researcher's scale is rarely necessary in the marketing discipline, users are expected to give credit when measures are not their own and when they are building upon other researchers' work.

Finally, I recently read that a well-known movie critic in the U.S. was publishing the final edition of his long-running movie guide. The reason he gave for ending the series is that there were too few people interested in the information who were willing to pay what was necessary to support the staff needed to produce such a reference book. Although I have no staff, I completely understand the challenge of producing reference books that require tremendous amount of effort. There was a saying we joked about back in the 1990s after the first few paper volumes had come out. We heard it said that the *Marketing Scales Handbooks* were the most "stolen" books in marketing. That referred to the observation that one person would buy a book and it would be loaned out to others to the point that it would eventually "disappear." The

contemporary equivalent is even more likely to be true now that copying and sharing of ebook files is so easy. The point is that I am not certain how many more volumes such as this will be produced. The effort level is extremely high and the rewards are few, especially now that I am retired from academia.

Having said that, I am not giving up just yet. I have already begun reviewing scales that appeared in articles published after the period covered in this volume. The day will come when I will step back from this work but, for the time-being, I plan to continue reviewing scales and would expect there will be a Volume 9 published in the next 2 to 3 years. Until then, my reviews of new scales will be added to the database at *www.MarketingScales.com* in a timely manner*.*

Acknowledgements

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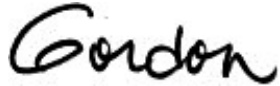
When preparing to review scales, most of what I need comes from the journal articles in which the scales are reported. On occasion, however, when clarification or more details are needed, I attempt to contact the authors for the information. Unfortunately, not all of those I contact get back to me. I appreciate those listed below who have responded with information that helped in some way:

Additionally, my sincerest thanks go to the researchers who have purchased this book and/or previous volumes. Without your support, there is no doubt this effort could not continue.

Finally, I appreciate my wife's understanding of the time and effort I put into this work. Although she may not fully understand what it is I am writing about, she does know it is work I enjoy.

May your measures always be valid!

Gordon

Fort Worth, Texas

March 2015

Introduction

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This eighth volume of the *Marketing Scales Handbook* series covers the scales that were reported in articles published in 2012 and 2013. As with the earlier volumes, this book should <u>not</u> be called a new "edition" since that implies content from the previous books was merely revised and updated a bit. Nothing could be further from the truth! This is a new "volume" because it covers a <u>different time period</u> than the other books in the series. Further, the content is completely new. While that does not always mean a scale was created and first reported in the articles published in 2012 or 2013, it does mean that none of the scales in this volume were in a previous volume of this series. If users are looking for something that is not in this book, they are urged to check out the full database at *www.MarketingScales.com* where several thousand reviews of other scales are available.

Similar to Volumes 4 to 7, this volume is composed entirely of scales that were used in scholarly research of "consumers" or similar groups of respondents, e.g., viewers, patients, citizens, etc. Dozens of the scales in this volume are amenable for use in a wide variety of studies and with all sorts of people, including those in an organizational context such as administrators and employees.

To be part of this volume, scales had to be composed of three or more items, have an acceptable level of empirical evidence of their psychometric quality, and be reflective measures rather than formative. There were three other criteria used as well. As described below, one was a constraint imposed at the scale level, one was a constraint at the construct level, and the final one had to do with time.

At the scale level, some measures found in articles were not included because they were the same or very similar to ones that had been reviewed in previous volumes. Because of that, there are no scales in this book with lots of uses reported over many years.

Another criterion used to focus the work involved in creating this volume was at the construct level. How many unique, alternative measures of a construct have already been reviewed and are housed now in the Marketing Scales database? Having alternative measures of the same construct is useful to researchers so that they can compare the various characteristics and choose the scale that best suits their purpose. At some point, however, the endless review of measures of the same construct is not the best use of time. While there was no hard and fast rule to guide constraint, suffice it to say that the greater the number of different measures of a construct that have already been reviewed in past volumes, the less likely that yet another measure was reviewed.

The final major criterion used to manage the workload was to focus on articles from a two year period. This was begun with Volume 7 and has been continued with Volume 8. An initial examination was conducted of 650+ articles published in six top

marketing journals during 2012 and 2013. From that group, 176 articles received greater scrutiny because they appeared to have measures of the type included in the book. After closer examination, some of those articles were dismissed because the measures they included did not meet enough of the stated criteria or the authors did not respond to requests for more information. Ultimately, there were 144 articles from the marketing literature domain with 392 scales that were reviewed for this book.

Assigning titles to scales (naming them) is more challenging than might be imagined. It is not as simple as calling them what the users did. In some cases, the researchers described a scale but did not give it a "proper" name, e.g., the attitude scale used in the field survey. Other times, a scale was given a name by authors that made sense in the context of their particular study but was more wide known with a general construct name, e.g., evaluation of the quality of the fictitious brand extension vs. quality of the brand. Given this, several things were taken into account when deciding what to call each scale: what did the creators call it, what have other users called measures of the same construct, and is the name relatively short?

The layout of reviews is exactly the same as followed in the last few volumes. Details about the type of information found in the various sections of each scale review are provided in the table on the next page.

TABLE

Description of Scale Review Format

SCALE NAME:

A relatively short, descriptive title is assigned to each scale. Several issues are taken into account when assigning a title and the name may not be the one used by the authors. See discussion above for more details.

SCALE DESCRIPTION:

A few sentences are used to succinctly describe the construct apparently being assessed and the number of items composing the scale. If known, the number of points on the rating scale and the response format (e.g., Likert, semantic differential) are stated as well.

SCALE ORIGIN:

Information about the creation of the scale is provided, if known. In a substantial portion of cases, the source of the scale was not stated by the authors of the article. While in many and maybe most of those cases the authors were the creators of the scale, it is not always true. Sometimes the authors of the article do not cite the source and it leaves the impression the measure is original even though they borrowed it from someone else. The opposite also occurs too many times. Specifically, authors describe their scale as "adapted" from a particular source. Yet, when a comparison is made between the new "adapted" scale and the cited one, there is little resemblance.

RELIABILITY:

For the most part, reliability is described in terms of internal consistency, most typically with Cronbach's alpha or construct reliability. In the few cases where it is known, scale stability (test-retest correlation) is reported as well. With respect to those statistics, higher numbers are generally better. With particular regard to internal consistency, statistics below .60 if not .70 as well could be considered insufficiently reliable for testing theory.

VALIDITY:

There are several types of validity and no one study is expected to fully validate a scale. While it is hoped that authors of each study would provide at least some evidence of a scale's validity, the reality has been the opposite. Most articles do not have information about scale validity. At the other extreme, a few authors have provided so much information in their articles about the scale validation that it is merely summarized in this field. In those cases, readers are urged to consult the cited articles for more details.

COMMENTS:

This field is used occasionally when something significant was observed and was deemed important to point out but did not fit well in the other sections. For example, if something about a scale is judged to be deficient then readers are urged in this section to exercise caution in using the scale.

REFERENCES:

Every source cited in a review is referenced in this section. The six journals that were closely examined for articles with scales are **Journal of Advertising, Journal of the Academy of Marketing Science, Journal of Consumer Research, Journal of Marketing, Journal of Marketing Research,** and **Journal of Retailing.** Citation of additional journals, books, proceedings, and other sources are provided when relevant. As stated in the Acknowledgements, in many cases the scale users themselves were contacted. If they responded and provided useful information, they were cited.

SCALE ITEMS:

The statements, adjectives, or questions composing a scale are listed in this field. Also, an indication of the response format is provided unless it is has been adequately specified in the Scale Description section. For example, if a measure is described as "Likert-type" it can be assumed that the extreme verbal anchors for the response scale were *strongly agree / strongly disagree* or some close variant. Where an item is followed by an (r) it means that the numerical response should be reverse-coded when calculating scale scores. Since errors involving notation of reverse-coding can occur at various stages of the article composition, review, editing, and publication process, users of scales are urged to examine items closely to determine which ones should be reverse-coded.

SCALE REVIEWS

Attitude Toward Word-of-Mouth (Teach Cultural Values)

SCALE DESCRIPTION:

A person's desire for the expression of his/her opinion about a certain brand to help someone learn the values of society is measured using four, seven-point Likert-type items.

SCALE ORIGIN:

The scale was developed by Alexandrov, Lilly, and Babakus (2013) by drawing concepts from the social learning literature (Bandura 1969; Baumeister et al. 2004) and then creating items for the word-of-mouth (WOM) context. The former referred to their scale as *intention to share social information*. Items for this scale and several others were generated by two independent "judges," only keeping the items for which there was consensus. Following that, exploratory and confirmatory factor analyses were conducted to provide evidence of the scales' dimensionalities, reliabilities, and validities (discussed further below). The authors' model was tested separately for positive and negative WOM.

RELIABILITY:

The alphas for the scale were .94 and .93 for the positive and negative WOM contexts, respectively.

VALIDITY:

The items intended to measure seven constructs in their model were examined initially with EFA by Alexandrov, Lilly, and Babakus (2013). While the seven factors were found, some items were eliminated. The seven factor structure was also found in a subsequent CFA though a few more items were removed. The analyses provided evidence in support of the scales' unidimensionalities, validities (convergent and discriminant), and configural invariance. The AVEs for the scale shown below were .80 and .77 for the positive and negative WOM contexts, respectively.

REFERENCES:

Alexandrov, Aliosha, Bryan Lilly, and Emin Babakus (2013), "The Effects Of Social- And Self-Motives On The Intentions To Share Positive And Negative Word of Mouth," *Journal Of The Academy Of Marketing Science*, 41 (5), 531-546.

Bandura, Albert (1969), "Social-learning Theory of Identificatory Processes," in *Handbook of Socialization Theory and Research*, D. A. Goslin, ed. Chicago: Rand McNally, 213–262.

Baumeister, Roy F., Liqing Zhang, and Kathleen D. Vohs (2004), "Gossip as Cultural Learning," *Review of General Psychology*, 8 (2), 111–121.

SCALE ITEMS:

When sharing my opinion about this brand with another person, I want them . . .

1. to learn the standards of other people acceptable in our society.
2. to understand the values of our society.
3. to understand how our society tells right from wrong.

Country-of-Origin Product Image (General)

SCALE DESCRIPTION:

Four, seven-point uni-polar items compose the scale and are intended to measure a consumer's overall opinion of the products that are manufactured in a particular country.

SCALE ORIGIN:

The scale was used by Herz and Diamantopoulos (2013) in three experiments. The source of the scale was Roth and Romeo (1992). In that study, the authors examined past studies for the primary dimensions of country of origin product image. One of their main observations was that the construct was multi-dimensional. However, to their surprise, when they used CFA to analyze four key dimensions with data they gathered from three countries, a one-factor model fit best. When analyzed for the three countries separately, the one-factor model fit best for two countries (the U.S. and Mexico) while a two-factor model fit best for Ireland. Cronbach's alphas ranged from .815 (Ireland) to .898 (Mexico) for the three countries. Based on their findings, they suggested more research be done to determine the impact of unidimensional versus multidimensional country images on product evaluations.

Sichtmann and Diamantopoulos (2013) used the scale in two studies, one in Austria and one in Bulgaria. They referred to the scale as *brand origin image*. The scale was phrased in German for purposes of Study 1. It is assumed to have been translated into Bulgarian for Study 2 though that was not explicitly stated by the authors.

RELIABILITY:

The alphas for the scale were .72, .81, .71 for Experiments 1, 2, and 3, respectively, conducted by Herz and Diamantopoulos (2013). As used by Sichtmann and Diamantopoulos (2013), the alphas were .82 and .90 in Studies 1 (Austria) and 2 (Bulgaria), respectively.

VALIDITY:

Although Herz and Diamantopoulos (2013) did not provide the exact results of testing the country of origin product image scale's validity, they did state that all of their scales had AVEs that were greater than .50. Further, explicit tests of discriminant validity showed the highest amount of shared variance between each pair of measures was lower than the individual AVEs (Fornell and Larcker 1981).

Sichtmann and Diamantopoulos (2013) used CFA to provide evidence of the scale's convergent and discriminant validities. Its AVEs were .52 and .70 in Studies 1 (Austria) and 2 (Bulgaria), respectively.

REFERENCES:

Fornell, Claes and David F. Larcker (1981), "Evaluating Structural Equation Models with Unobservable Variables and Measurement Error," *Journal of Marketing Research*, 18 (February), 39-50.

Herz, Marc Florian and Adamantios Diamantopoulos (2013), "Activation of Country Stereotypes: Automaticity, Consonance, and Impact," *Journal of the Academy of Marketing Science*, 41 (4), 400-417.

Engagement with the Program

SCALE DESCRIPTION:

The extent to which a person paid attention to and was excited about the first half of a program is measured with eight, five-point items. The scale appears like it could be used not only with a televised sporting event (as Moorman et al. 2012 did) but also a movie or TV program, and possibly other presentations and events (e.g., lectures, parades, debates).

SCALE ORIGIN:

The scale used by Moorman et al. (2012) is a much longer version of a scale the authors had used previously (Moorman, Neijens, and Smit (2007). Ideas for the additional items apparently came from even older work of theirs and other sources (e.g., Bryant and Comisky 1978; Moorman, Neijens, and Smit 2002; Norris and Colman 1993). Moorman et al. (2012) referred to the scale as *program involvement* and used it with respect to the FIFA World Cup soccer championship. The sample was composed of 1,952 Dutch viewers of the game recruited from an Internet panel.

RELIABILITY:

The alpha for the scale was .89 (Moorman et al. 2012, p. 29).

VALIDITY:

The validity of the scale was not discussed in detail by Moorman et al. (2012). They did say, however, that the items loaded on one factor and the scale's explained variance was 72.37%.

REFERENCES:

Bryant, Jennings, and Paul W. Comisky (1978), "The Effect of Positioning a Message Within Differentially Cognitively Involving Portions of a Television Segment on Recall of the Message," *Human Communication Research*, 5 (1), 63-75.

Moorman, Marjolein, Peter C. Neijens, and Edith G. Smit (2002), "The Effects of Magazine-Induced Psychological Responses and Thematic Congruence on Memory and Attitude Toward the Ad in a Real-Life Setting," *Journal of Advertising*, 31 (4), 27–40.

Moorman, Marjolein, Peter C. Neijens, and Edith G. Smit (2007), "The Effects of Program Involvement on Commercial Exposure and Recall in a Naturalistic Setting," *Journal of Advertising*, 36 (1), 121—137.

Moorman, Marjolein, Lotte M. Willemsen, Peter C. Neijens, and Edith G. Smit (2012), "Program Involvement Effects on Commercial Attention and Recall of Successive Embedded Advertising," *Journal of Advertising*, 41 (2), 25-37.

Norris, Claire E. and Andrew M. Colman (1993), "Context Effects on Memory for Television Advertisements," *Social Behavior and Personality*, 21 (4), 279-286.

SCALE ITEMS:[1]

1. I was fascinated by the first half of the _____.
2. My thoughts wandered off during the first half of the _____. (r)
3. I thought the first half of the _____ was exciting.

Quality of Green Products

SCALE DESCRIPTION:

This scale uses three, seven-point Likert-type items to measure the extent to which a consumer believes so-called "green products" are of high-quality and better than those that are not considered to be "green."

SCALE ORIGIN:

Gleim et al. (2013) stated that they adapted their scale from work by Dodds, Monroe and Grewal (1991). While the latter used a scale that measured product quality, it was very different from the scale reviewed here. Given that, it may be more accurate to say that Gleim et al. (2013) created the scale and were inspired in some way by the research conducted by Dodds, Monroe and Grewal (1991).

RELIABILITY:

The construct reliability reported for the scale by Gleim et al. (2013) was .95.

VALIDITY:

Using CFA, Gleim et al. (2013) found support for the measurement model involving many constructs. In particular, evidence was found in support of the quality scale's discriminant validity with respect to the other scales in the model. The AVE for the scale was .82.

COMMENTS:

The scale seems to be amenable for use with other types of products by merely replacing the phrase "green products" in each item with an appropriate phrase, e.g., fair trade goods, locally produced products, organic foods.

REFERENCES:

Dodds, William B., Kent B. Monroe, and Dhruv Grewal (1991), "The Effects of Price, Brand, and Store Information on Buyers' Product Evaluations," *Journal of Marketing Research*, 28 (August), 307-19.

Gleim, Mark R. (2014), personal correspondence.

Gleim, Mark R., Jeffery S. Smith, Demetra Andrews, and J. Joseph Cronin Jr. (2013), "Against the Green: A Multi-method Examination of the Barriers to Green Consumption," *Journal of Retailing*, 89 (1), 44-61.

SCALE ITEMS:[1]

1. Green products are excellent quality.
2. Green products are high quality.
3. Green products are superior quality.
4. Green products are the best.