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Cross-cultural research in international marketing: clearing up some of the confusion

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Abstract

Purpose – The purpose of this paper is to shed light on the discussion of cross-cultural research, in particular the use of dimensions of national culture, for international marketing.

Design/methodology/approach – Discuss definitions of values and culture, analyze cultural models as to purpose and design and applications of models to international marketing.

Findings – International marketers benefit from applying dimensions of national culture, but researchers make mistakes in applying and interpreting such dimensions, thus discrediting useful means of research for international marketing.

Practical implications – Researchers should understand the problems of multi-level research and interpret dimensions better when using them for research.

Originality/value – The value of this paper is in clearing up some of the misunderstandings about dimensions of national culture.

Keywords Consumer behaviour, Values, National culture, Dimensions of national culture, Cross-cultural research, Multi-level research

Paper type Conceptual paper

Introduction

The past years this journal has offered several articles about dimensional models of culture, in which the authors criticized models with respect to improper usage of dimensions of national culture at the individual level. Criticism also concerned a confusing variety of definitions of values and culture. Until now the dispute has mainly been between international management academics. Time has come to investigate and define concepts like values and culture for use in international marketing; to review proper and improper applications of cultural dimensions and critical mistakes made. Three major models are compared to assist researchers in selecting and using models for international marketing and advertising research.

The value concept

In marketing the term value is used in several ways, such as in terms of money (e.g. financial value of a brand), in terms of benefit to the buyer (customer value) or in psychological terms (personal values that may influence product or brand preferences). In consumer psychology definitions of the value concept tend to follow the definition by Milton Rokeach (1973) as "an enduring belief that one mode of conduct or end-state of existence is preferable to an opposing mode of conduct or end-state of existence," simpler said "a broad tendency to prefer certain states of affairs over others." Values can be viewed as bi-polar constructs (Horley, 2012), because they concern evaluations; choices between alternatives.

Jagodzinsky (2004) distinguishes between micro-level values at individual level and macro-level or collective values at the culture level. Across cultures similar values may



International Marketing Review Vol. 32 No. 6, 2015 pp. 646-662 © Emerald Group Publishing Limited 0265-1335 DOI 10.1108/IMR-12-2014-0376 be found, but priorities may vary across cultures, hence the term value priorities. A value system can be viewed as a learned organization of principles to help choose between alternatives. Rohan (2000) distinguishes between personal value systems, concerning people's own judgments for themselves and social value systems, concerning people's perception of others' judgments.

Values are broad psychological beliefs of individual human beings about desirable modes of conduct. Organizations or countries do not have values (Fischer and Poortinga, 2012). Values are also unspecific mental programs that can be activated in a variety of situations. In most studies values are clearly distinguished from beliefs, personal traits, and norms or ideologies. Whereas values are preferences for states of being, beliefs generally are expressed as agreements or disagreements with worldviews. Personal traits are a consistent pattern of thought or action. Norms and ideologies are about what people in general should or should not do. Many surveys mix the four, asking questions about what people think about themselves, about society, about others and what they themselves or others should be. Asking about others or society leads to different inferences compared to when asking self-ratings. Fischer and Poortinga (2012) note:

If individuals were to develop value structures for other entities (e.g. society) this might lead to large numbers of intrapsychic value structures. It is hard to imagine that individuals have the cognitive capacities to develop different structures for others than themselves.

The use of the value concept for understanding consumer behavior is that value orientations of individuals can be related to some attitudes and behavior (Fischer and Poortinga, 2012; Rohan, 2000). It is the link between values and attitudes that to a certain extent helps predict consumer behavior. In marketing practice values are linked with product attributes and benefits to help distinguish brands *vis-à-vis* the competitive brands in the category and help build brand positions via so-called means-end chains (Gutman, 1982). The question is which needs a product or service fulfills and which specific value(s) may be associated with buying and usage behaviors; which are the intervening attitudes that must be identified in order to link consumption choice to underlying values (Munson, 1984).

There are two aspects of values that must be taken into account in value research. Are values conceptions of the desirable (what people ought to do) or the desired (what people want to do)? (Rohan, 2000). Survey answers to questions about what people actually do and what they think should be done, usually are negatively related. This causes the most basic conceptual difference between the major dimensional models by Hofstede (2001), Hofstede *et al.* (2010) and GLOBE (House *et al.*, 2004). Hofstede measures the desired. What GLOBE calls values are in fact norms that reflect the desirable. The value definition by Schwartz and Bilsky (1987) used for the model developed by Schwartz (1992, 1994) concerns both the desired and the desirable.

Culture

According to McSweeney (2013) the idea of "culture" is more easily evoked than defined and the concept often is ill-defined. Indeed, the term culture is used in various ways in various academic disciplines, where some definitions concern the values of culture and others the practices. The problem is in the habit of cross-cultural researchers of not specifying which concept of culture they refer to when presenting or criticizing research. Culture can be defined as a shared meaning system (Fischer, 2009; Schwartz, 2006) or as "collective programming of the mind that distinguishes the members of one

group or category of people from another" (Hofstede, 2001, p. 9). Values are used as key components of such mental programming (Fischer, 2009) and the prevailing value emphases in a society may be the most central feature of culture (Schwartz, 2006). Culture is not a characteristic of individuals; it encompasses a number of people who were conditioned by the same education and life experience (Hofstede *et al.*, 2010).

Central in the definition is culture as a collective phenomenon shared among its members. Sharedness is the common denominator of most definitions of culture in cross-cultural and cultural psychology (Fischer and Schwartz, 2011). When accepting this principle, statements like "individual-level culture and related decision-making" (Brewer and Venaik, 2012), "individual cultural values" and "personal cultural values" (Yoo and Donthu, 2002), or "individual's cultural value orientations" (Schoefer, 2010), are contradictions in terms.

Cultural practices may be found in the global market place (wearing jeans, drinking Coca-Cola), but the underlying values that explain motives for buying these are not global. Whereas in some cultures consumers may drink Coca-Cola to quench their thirst, in others they may do so for status reasons. International marketers need to know these differences to develop effective global marketing and advertising campaigns.

Usually the term Global Consumer Culture (GCC) refers to the practices, products or brands bought by specific market segments worldwide that are found similar with respect to their lifestyles. Manrai and Manrai (2011) suggest that globalization has affected consumer's cultural orientations at several levels, from GCC, to Regional Consumer Culture (RCC), to National Consumer Culture (NCC), to Ethnic Consumer Culture (ECC), and Individual Consumer Culture (ICC). This refers to the level of practices, not to the values. If so, GCC would imply shared values worldwide. By now there is ample evidence of the non-existence of universal global values or value priorities. With respect to ICC, sharing values within one person would point at a split personality.

National culture

International marketing generally works with national level data. When international marketing managers want to enter new markets they analyze nations with respect to GNI/capita, education levels, available mass media, social media used, retail infrastructure, product category data, and the like, all at national level. Adding cultural values at the same, national level is useful for international market researchers who need explanations for differences in consumers' product ownership, usage, brand preferences, motives, which are not captured by differences in income or other demographic characteristics.

Marketers have to reach consumers one way or another, and this is generally done via mass media through which individual consumers cannot be identified. Although the internet allows reaching individual consumers by following their buying behavior, the costs are high and it is not easy to link to personal values. Tracking individual customers' value orientations is costly and time consuming and may only be conducted for high net worth or frequent customers (Patterson *et al.*, 2006; Steenkamp and Ter Hofstede, 2002).

Using national level data for cross-cultural comparison has been criticized because it ignores within nation differences. Yet, although some nations are more heterogeneous than others, the differences between nations tend to be much larger than within nations (De Mooij, 2014, pp. 75-76; Hofstede and Minkov, 2011). A culture

can be validly conceptualized at the national level if there exists some meaningful degree of within-country commonality and between-country differences in culture (Steenkamp, 2001).

The function of dimensions of national culture is that they "group together phenomena that were empirically found to occur in combination, regardless of whether there seems to be a logical necessity for their going together" (Hofstede and Hofstede, 2005, p. 24)[1]. Each dimension forms a scale, and countries have a score on these scales. Several dimensional models provide country scores that can be used as independent variables for the analysis of other national-level data. Such analysis may find patterns that are not found by socio-economic variables.

For understanding within-nation differences marketing researchers tend to define lifestyle segments, to find how consumers express their values in their daily lives through activities, interests and opinions. The identification of international lifestyle segments has been proved problematic. Construct equivalence is rare and international segments are often masked by different meanings across countries (Steenkamp and Ter Hofstede, 2002). Also Venaik and Brewer (2013, p. 477) demonstrate the problems encountered when trying to define cross-border segments based on cultural characteristics.

Multi-level research

Cultural values tend to be assessed using either primary or secondary data. Primary data are derived directly from assessing values through surveys or experiments. Secondary data include scores of dimensions of national culture. For individual-level studies data are collected and analyzed at the individual level and tied to individual level outcome. For measuring culture at the national level, individual data are aggregated by country and linked to country-level outcome or pre-existing country-level measures. These culture-level structures differ from those at individual level, and the meaning of a value may change from the individual level to the culture-level. Thus, the practice of assigning country scores to individuals should be avoided (Taras et al., 2010) and failure to acknowledge this phenomenon will lead to inappropriate conclusions (Fischer and Poortinga, 2012; Fischer et al., 2010). Yet, analysis of 180 studies by Kirkman et al. (2006) showed that the majority of researchers have adopted Hofstede's dimensions for use at the individual level and the authors point at researchers' silence about the problem (pp. 298 and 309), ignoring the studies that have discussed the problem (Hofstede et al., 1993; Hofstede, 1995, 2001; Schwartz, 1992, 1994).

If carefully constructed, multi-level research is possible. Marketing scholars Steenkamp *et al.* (1999) conducted multi-level research to find how national-level variables affect characteristics of individuals. They used separate scales for personal values and for national culture and a hierarchical linear modeling technique. Conclusions were that national culture moderated the effects of individual-level variables on innovativeness, demonstrating that individual dispositions are affected by the national cultural environment.

For individual-level research different measures have to be used than for culture-level research as individual values are shaped both by unique personal characteristics and by culture (Taras *et al.*, 2010). Yet, several researchers have used culture-level scales for individual-level measurement.

An example is the CVSCALE developed by Donthu and Yoo to "measure Hofstede's culture at the individual level" (Donthu and Yoo, 1998; Yoo et al., 2011).

These researchers justify their choice of individual-level measurement referring to Leung and Bond (1989) whose "individual level multicultural factor analysis makes it possible to apply Hofstede's typology of culture to individual subjects." This is a misinterpretation of what Leung and Bond actually concluded from their pan-cultural analysis, pooling the data from all individuals together regardless of the cultures they belong to: "Counterintuitive as it may be, pan-cultural analysis is not an appropriate way for identifying universal dimensions of individual variation." Usage of this CVSCALE for service marketing research based on individual level analysis, has led to inconsistent results (Patterson *et al.*, 2006; Schoefer, 2010). Most problematic of the CVSCALE is usage of the same labels as used in Hofstede's model, but for different conceptual contents. The scale has adjusted Hofstede's questionnaire to make it less work-related, but when doing so changed the contents, causing conceptual inequivalence. When changing questions the results will not be the same and giving dimensions the same labels is misleading.

Although many researchers have warned against the ecological fallacy, some researchers keep propagating cross-cultural research at individual level (Taylor and Ford, 2014). Venaik and Brewer (2013, p. 478) on the one hand argue against individual-level applications of cultural dimensions, on the other hand they "strongly advocate that marketing managers interested in cultural differences should focus on specific individuals or groups of people that are relevant to their own particular business decisions, such as particular consumer segments [...]." They conclude that national culture dimensions are irrelevant for marketing decision making. Yet, the same authors (Brewer and Venaik, 2012) mention two ways in which the national culture dimensions and associated scores can be useful: first, national culture dimensions may be used to explain other national-level phenomena; second, the national culture dimensions could be used in a multi-level model where national level variables are used to explain individual behavior by using an appropriate multi-level statistical technique, such as hierarchical linear modeling.

In international marketing dimension scores have mostly been used for the first purpose, to explain other nation-level phenomena, for among others analyzing international markets, innovativeness, service performance, advertising appeals, information behavior, consumer decision making styles, and online retailing (De Mooij, 2014; Soares *et al.*, 2007).

Analysing purpose and design of cultural models

A dimension most used in cross-cultural research is individualism-collectivism (IDV-COL), first coined by Hofstede (1980), for which also other terms are used, such as independent vs interdependent self-construal, idiocentrism-allocentrism, and private-collective self. There are more than 100 competing instruments for measuring IDV-COL. However, the same label is used for many different concepts. Taras *et al.* (2014) analyzed six instruments that are most used, those by Gudykunst *et al.* (1996), Kim and Leung (1997), Oyserman (1993), Singelis (1994), Takata (1993), and Triandis (1994). Gross variations exist depending on the specific instrument used to collect the data, the level of analysis, the sample characteristics and region where data are collected. Vargas and Kemmelmeier (2013) analyzed an even larger number of studies and also found that the results differ with the type of scale used, questions asked and topics covered. Because of conceptual and measurement differences with Hofstede's work it is often not clear how these findings can be integrated and compared with each other.

An important cause of differences is the origin of the samples. Many such studies have mainly compared west with east or even within the USA have contrasted European Americans vs those of other demographic or ethnic groups such as African Americans or Chinese Americans (Kemmelmeier *et al.*, 2003).

Several larger scale dimensional models have been developed. This paper compares three: those by Geert Hofstede, by Shalom Schwartz, and project GLOBE. The Dutch scholar Geert Hofstede was the first who, starting in 1973, developed five independent dimensions of national culture. His five dimensions are labeled power distance, individualism/collectivism, masculinity/femininity, uncertainty avoidance, and long-/ short-term orientation. Later, a sixth dimension was added called indulgence/restraint. The Israeli psychologist Shalom Schwartz (1992, 1994) measured values both at the individual and the culture-level, resulting in ten value types at individual level and at the culture-level seven different value types labeled embeddedness vs intellectual and affective autonomy, hierarchy vs egalitarianism, and mastery vs harmony. For comparison reasons, these seven value types can be viewed as three dimensions. One dimension is a pole with embeddedness on one end and autonomy (intellectual and affective) on the other; the next pole consists of hierarchy vs egalitarianism, and the third pole consists of mastery vs harmony. The most recent large-scale dimensional model is GLOBE (House et al., 2004) developed by Robert House of the Wharton School of Management and his associates, who initiated a cross-national project for the study of leadership and societal culture. They searched for dimensions similar to Hofstede's and developed questions relating to these dimensions. This resulted in nine cultural dimensions for which they used labels similar to the Hofstede dimensions, which are not the same. The labels are uncertainty avoidance, power distance, two types of collectivism, gender egalitarianism, assertiveness, future orientation, performance orientation, and humane orientation. Whereas the Hofstede dimensions are empirical, that is, resulting from a large database without prior theory, the GLOBE researchers first developed a theory, based on existing ideas. Also the purpose of their study was different.

Influence of questions

The appropriateness of cultural models depends on the type of questions asked in surveys even more than on proper statistical methodology. Posing multi-interpretable questions leads to multi-interpretable results. Understanding how these questions make a difference is necessary to understand the usefulness of the different models (De Mooij, 2013). First, questions or statements should be specific rather than abstract as many abstract questions are multi-interpretable. One example is asking for the degree of being comfortable with risk. Risk is the chance of injury, damage or loss. What can be lost may vary from losing one's life, health, or money, to loss of face, an emotional risk. Answers may vary with what the respondent has in mind. Minkov et al. (2012) point at the danger of asking abstract questions about norms or deviation from norms. The acceptability of deviations from societal norms depends on what the norm is about and norms tend to vary by society. Second, self-ratings will lead to different results than judgmental questions (De Mooij, 2013). Third, a cause of bias is ethnocentric questioning. One regularly used questionnaire item to measure IDV-COL is the following statement to agree or disagree with: "I will sacrifice my self-interest for the benefit of my group" (Singelis, 1994; Vargas and Kemmelmeier, 2013). This reflects individualistic values of those who formulated the question. The term sacrificing may not be appropriate as it suggests a negative process. Japanese, although they are aware of subordinating themselves to a group may not view this as self-sacrifice, but rather as a positive investment in their self-interest. Like other collectivists they involve in group behavior in one way or another for the benefit of protecting their self-interest, which is a positive process. Another frequently used question (GLOBE; Yoo and Donthu, 2002; Schoefer, 2010) that includes a similar fallacy is to ask respondents to agree or not agree with the statement "Group loyalty should be encouraged even if individual goals suffer." Suffering individual goals is not part of the mindset of collectivists. Such questions reflect ethnocentric reasoning of individualists who are inclined to put their self-interest first.

Another example is asking about autonomy vs compliance with wishes of others, values relevant to decision making theory. The question suggests these cannot go together, but in collectivistic cultures compliance does not include lack of autonomy. Interdependence does not imply people may not make decisions independently, although the influence of group members on the decisions may be stronger than in individualistic cultures. Data from Eurobarometer (2011) show that across Europe in collectivistic cultures people do consult family and friends for comparison more than in individualistic cultures, but this may be caused by more frequent in-group communication, and people are not inclined to view this process as directing one's decisions (De Mooij, 2014). Least of all do they feel pressured into compliance with their parents' wishes. They may believe that parents' involvement is indicative of their love and care and compliance does not imply lack of autonomy (Chen *et al.*, 2013).

Comparing the three major dimensional models

The three major large-scale dimensional models overlap in some ways but vary with respect to purpose, sampling, and type of questions used. What they have in common is aggregating responses by individuals drawn from a series of different national or regional samples.

Hofstede searched for differences in work motivations of all levels of employees, as caused by the nationality of the employees. Schwartz (2011) searched for basic values on which individuals in all cultures differ and from there developed a theory of cultural values on which societies differ. Robert House, the initiator of GLOBE was interested in the effectiveness of leadership styles (House *et al.*, 2002). Hofstede used matched groups of employees in seven occupational categories within one global company in 66 countries. Schwartz used students and teachers in 54 countries. GLOBE surveyed middle managers in 951 local organizations in 62 societies. The type of questions used follow different patterns (De Mooij, 2013).

The three models overlap to some extent and similar labels are used for dimensions with different contents. Hofstede's label IDV-COL can be used as an umbrella term for the various values covered by comparable dimensions of the other models. The Schwartz dimension autonomy-embeddedness measures several aspects of IDV-COL and the GLOBE dimension institutional- and in-group collectivism measures collectivism on the one pole and on the other individualism (Gelfand *et al.*, 2004). The various dimensions include different collectivistic and individualistic patterns. What the dimensions have in common are differences in definition of the self, emphasis on personal preferences vs duties and obligations, and emphasis on rationality vs giving priority to relationships and taking into account the needs of others.

The term power distance is used to distinguish values related to people's relationships with elders and authority, or dependence and independence values. These are included in dimensions called power distance (Hofstede and GLOBE) and in

Schwartz's value type hierarchy vs egalitarianism. The dimensions overlap, but are not totally the same.

The difference between long- and short-term orientation is measured by Hofstede's dimension long- vs short-term orientation (LTO), and a similar GLOBE dimension labeled future orientation, but the latter seems to be less clear-cut and includes a mix of elements of various other dimensions. It correlates negatively with in-group collectivism and thus includes individualistic values.

Several dimensions measure differences with respect to the degree of assertiveness, average performance orientation of people, and relationships between males and females.

Hofstede's masculinity-femininity is a complex dimension as it measures the degree of assertiveness or achievement orientation vs quality of life as well as the degree of role differentiation vs overlapping roles of males and females. It explains differences in household roles like cleaning, child care, cooking, and shopping. Data from Eurobarometer (2006) show that in the feminine cultures people have the opinion that both men and women should contribute to the household income.

Schwartz's mastery pole of his dimension mastery-harmony has some conceptual overlap with masculinity. Both emphasize assertion and ambition (Schwartz, 2004). However, the harmony pole is not the same as Hofstede's femininity pole.

GLOBE's gender egalitarianism (Emrich *et al.*, 2004) measures equal opportunity for women vs male domination, which focusses on equal opportunity in education and in the work place. Yet, it also appears to measure gender role differences. Data from the European time survey by Eurostat (2011) and the OECD (2011) family database show for domestic care activities by males and females significant correlations with masculinity (time allocated to domestic and caring activities by females) and with gender egalitarianism (time allocated to domestic and caring activities by males).

The GLOBE dimension assertiveness is defined as "the degree to which individuals in organizations or societies are assertive, dominant, and aggressive in social relationships" (Den Hartog 2004, p. 395). It correlates positively with Hofstede's masculinity. However, Den Hartog (2004) also links assertiveness with a direct communication style, being direct and unambiguous. That characteristic presupposes that Asian societies with more indirect communication styles might not be competitive. Competitive Japan scores quite low on this dimension, whereas it scores high on the Hofstede dimension masculinity.

Another GLOBE dimension, performance orientation, includes values related to the hard and soft aspects of culture, but it includes puzzling elements. Javidan (2004) links it to the work ethic of protestant Calvinism and summarizes it as a characteristic of high performance oriented cultures that they value education and learning, emphasize results, take the initiative, and prefer explicit and direct communication. Japan and Korea are cultures with high performance ethics and score medium to high on this dimension, but people are certainly not direct in their communication.

Both Hofstede and GLOBE use the term uncertainty avoidance for dimensions that are quite different and have a reverse relationship. Hofstede *et al.* (2010) definition is "the extent to which people feel threatened by uncertainty and ambiguity and try to avoid these situations." GLOBE's dimension uncertainty avoidance is more a variant of collectivism, pointing at the high importance of in-groups and relative lack of interest in out-groups (Minkov and Blagoev, 2011). It is defined as the extent to which members of collectives seek orderliness, consistency, structure, formalized procedures, and laws

to cover situations in their daily lives (Sully de Luque and Javidan, 2004). This is not the same as avoiding ambiguity, anxiety, and stress, for which all sorts of other coping mechanisms than orderliness and laws may serve to handle. The GLOBE country's scores for this dimension correlate negatively with Hofstede's scores, resulting in opposing correlations with other variables (De Mooij, 2013).

Other dimensions that are included in the Hofstede, GLOBE, and Schwartz models are indulgence vs restraint (Minkov, Hofstede), mastery vs harmony (Schwartz), and humane orientation (GLOBE).

The dimension indulgence vs restraint (IVR) was developed by Minkov (2007) and was added as a sixth dimension to Hofstede's model. Indulgence includes the degree of happiness people experience, the control they have over their own lives, and the importance of leisure. Restraint, the pole that Minkov (2011) later named industry includes values like hard work and thrift. Low IVR includes buying something only if really needed. High IVR includes wanting to pay for extra quality and indulging in the latest gadgets.

The Schwartz dimension mastery-harmony (Schwartz, 1994) deals with the treatment of human and natural resources. Harmony cultures emphasize fitting into the social and natural world, trying to appreciate and accept rather than to change, direct and exploit. Mastery cultures encourage active self-assertion in order to master, direct, and change the natural and social environment.

The GLOBE dimension humane orientation is defined as the degree to which an organization or society encourages and rewards individuals for being fair, altruistic, friendly, generous, caring, and kind to others (Kabasakal and Bodur, 2004). In cultures that score low, self-interest is more important and so are values of pleasure, self-enjoyment, and self-enhancement. The title suggests different value preferences than are found by correlations with other phenomena. For example, humane orientation correlates positively with the degree of racism and preferences for the death penalty (Minkov and Blagoev, 2011).

Not all dimensions contribute equally to understanding differences in consumer behavior, marketing and advertising. Magnusson *et al.* (2008) analyzed several models for the purpose of calculating cultural distance, an important variable in international marketing. They found that the indices based on Schwartz and GLOBE cluster similar markets poorly. They conclude that the more recent cultural frameworks have provided only limited advancements compared with Hofstede's original work.

Although it has been most influential and most used, Hofstede's model has been criticized for several reasons. One reason is the sampling method, which tends to be not well understood; the other criticism is that it is outdated, although many replications have demonstrated that the results are still valid. Criticism of being outdated is not very relevant as cultural values are stable over time, as demonstrated by the many large-scale replications of his work (Søndergaard, 1994). It has taken some time for users to demonstrate differences in validity and application possibilities of the more recent models.

Cultural models are increasingly applied in academic research but they may lose credibility by erroneous applications that are not based on proper samples (usually students) or lack of insight in the conceptual content of dimensions. Mistakes found are applying culture-level data to individuals, confusing the desirable and the desired, using different measurements for comparison or replications, and misinterpreting the conceptual content of dimensions.

Using different measurements for replications

Discomfort with assumed outdatedness of the Hofstede model has led to many replications of the Hofstede model, of which several have used non-Hofstede scales (Emery and Tian, 2010; Fernandez et al., 1997; Lam, 2007; Rhodes and Emery, 2003). Such studies lack measurement equivalence (Kirkman et al., 2006). Hofstede's questions measure specific values that together make up the dimensions. When using different measurements (scales with different questions) the results will not be conceptually equivalent. Comparing cultural values over time using different measurements may lead to inappropriate conclusions like "there have been significant shifts in value classifications since Hofstede conducted his original study" (Fernandez et al., 1997). Such a conclusion is erroneous because it does not concern a replication of Hofstede's original study. When different scales are used it also is improper to conclude that the Hofstede dimensions offer little value in predicting the importance of various advertising appeals (Emery and Tian, 2010; Rhodes and Emery, 2003).

In particular the use of questions based on the desirable will cause differences when replicating Hofstede's work, as his work is based on questions asking for the desired. Wu (2006) used a questionnaire by Dorfman and Howell (1988), which has been used by several others to replicate Hofstede's work. The Dorfman and Howell scales include statements about the desirable such as "Managers should make most decisions without consulting subordinates" or "Managers should seldom ask for the opinions of employees," or "I should decide my future on my own."

(Mis)understanding conceptual content of selected dimensions

Lack of understanding of the conceptual elements of cultural models makes researchers formulate the wrong hypotheses with unexpected results, for which some blame the model used. Because none of the dimensional models was developed for international marketing or for understanding cross-cultural consumer behavior, additional analysis is necessary to apply them to the various aspects of buying behavior, decision making, motivation, information processing, and communication behavior. Such analysis shows, for example that values can be product category related. Examples from data on car buying motives are that safety for automobiles is a motive that correlates negatively with Hofstede's dimension masculinity, not with high uncertainty avoidance. It appears to be most relevant in cultures where protection of the weak is important. Relevant for luxury products are dimensions that measure status value. Examples are cultural masculinity and power distance. Such differences in motives for a product category can be found by analyzing consumer behavior databases before setting hypotheses with respect to marketing communications. Many such data can be found in the public domain (De Mooij, 2014). Some academic studies have found underlying differences as to product usage and context. Cultural relationships for personal products tend to be different if bought for individual use than if bought for shared use. Similarly differences exist between those bought alone or in the company of others (Choi and Miracle, 2004; Zhang, 2010). Also often configurations of dimensions explain differences. For communication behavior, for example, configurations of dimensions are relevant, such as IDV-COL and LTO, where LTO distinguishes between collectivistic cultures with respect to various aspects of communication behavior, in particular between Asia and Latin America (De Mooij, 2014). A few examples of misunderstanding the conceptual content of dimensions are the following.

IDV-COL

Cross-cultural studies that compare appeals in advertising tend to use lists of appeals developed in the USA for cross-cultural comparison, in particular a list developed by Pollay (1983). Such lists reflect the values of the USA and may lack values of other cultures. One particular and complex item, hypothesized as specific to collectivistic cultures is succorance. In Pollay's list succorance is defined as "To receive expressions of love (all expressions except sexuality), gratitude, pats on the back, to feel deserving." Explicit expression of love or patting on the back is not an aspect of collectivism, in particular not in Asian cultures. Neither Albers-Miller and Gelb (1996), nor Rhodes and Emery (2003), using Pollay's list of values to compare the use of advertising appeals across cultures found a relationship between succorance and collectivism.

Another example is from content analysis of advertising where the picture of a family representing family appeal tends to be hypothesized as a reflection of collectivism (Okazaki and Mueller, 2008). There is no such link because in collectivistic cultures family is not the desirable as it is implicitly part of one's identity (De Mooij, 2013, 2014). This is supported by findings from value and attitude surveys. For example, asked for associations with food (Eurobarometer, 2010), associations with friends and family are significantly correlated with individualism and not with collectivism. In the latter cultures food is automatically and implicitly shared with others, whereas in individualistic cultures people may be more explicitly aware of togetherness when eating.

The community appeal of Pollay's list causes a similar effect. Czarnecka and Brennan (2009) unexpectedly found a negative relationship between the community appeal and GLOBE's dimension Institutional Collectivism, concluding that "GLOBE dimensions do not seem to be explaining the differences in advertising appeals successfully."

Uncertainty avoidance

Often researchers hypothesize uncertainty avoidance as risk avoidance or risk aversion. In several studies the hypothesis that safety as an advertising appeal would be related with high uncertainty avoidance was not supported (Albers-Miller and Gelb, 1996; Chan and Moon, 2005). Risk avoidance is not included in this dimension. With respect to motives for automobiles it even is the opposite. An explanation can be that in high uncertainty avoidance cultures fast acceleration and fast driving help release stress, serving as a sort of emotional safety valve. Only in some specific product categories risk perception may be related to high uncertainty avoidance. An example is food-related risk. Eurobarometer (2010) asked for the degree to which people worry about the potential risk of food damages to one's health. The percentages of respondents who worried correlated significantly with high uncertainty avoidance.

An example of a mistake in reading Hofstede's data are from Kwak *et al.* (2008) who position China high on the uncertainty avoidance index instead of the correct low score, then do not find a cultural relationship and blame the Hofstede model.

Masculinity-femininity

Hofstede's dimension masculinity-femininity does not concern sex-related behavior. In the USA, where display of nudity in advertising tends to be viewed as sex appeal, researchers (Nelson and Paek, 2008) have hypothesized nudity in advertising to be a

related to cultural masculinity, but no such relationship was found. Referring to the lack of relationship between nudity as sex appeal in advertising and masculinity, Liu (2014) expresses doubts about the usefulness of the Hofstede model. If any cultural dimension might explain the use of nudity in advertising, it might be strong uncertainty avoidance, which tends to be related to purity values, as found for several product categories (De Mooij, 2014).

Several studies (Albers-Miller and Gelb, 1996; Rhodes and Emery, 2003) have hypothesized "natural" (e.g. references to the elements, animals, minerals, purity) as an element of low masculinity. In none of these studies a relationship between "natural" and low masculinity was found, but results rather indicated a relationship with uncertainty avoidance.

Conclusion and recommendations

Too many cross-cultural marketing and advertising studies using dimensional models are inadequate in design and execution. This unnecessarily leads to distrust and criticism of models.

Yaprak (2008) reviewed the development of culture theory in international marketing and provides recommendations such as to better define culture and to overcome ethnocentrism. In this paper recommendations are added for the purpose of improving international marketing and consumer behavior research:

- Before embarking on any cross-cultural research we need to understand the concept of culture and the working of dimensional models.
- When using comparative data at national level, only countries can be compared, not individuals.
- If researchers want to measure culture together with other phenomena, their samples must be matched properly. Student samples are inadequate. For a replication of Hofstede's work, his Value Survey must be used, which is available in the public domain (www.geerthofstede.eu), not questionnaires of researchers' own make.
- When developing dimensions from self-assembled scales, labels must be used that are different from those of existing models.
- Before setting hypotheses, the conceptual content of the dimensions used must be properly studied. If countries are compared with respect to appeals in advertising, hypotheses can be set by first analyzing cultural relationships of product category related consumer motives or other national-level data on attitudes or behavior.
- "We need to overcome our own ethnocentrism" (Yaprak, 2008). This implies that
 we have to be careful not to formulate ethnocentric questions and not use lists of
 values or advertising appeals developed in one specific country (e.g. Pollay's list
 of advertising appeals) for cross-cultural comparison.

Note

 This definition by Hofstede and Hofstede (2005, p. 24), was misquoted by McSweeney (2013, p. 491), criticizing Hofstede for having claimed that national culture can be "empirically found."

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