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AUTHORS
Laura Salciuviene
Vilte Auruskeviciene
Zigmas Lydeka

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An Assessment of Various Approaches for Cross-Cultural Consumer Research

Laura Salciuviene, Vilte Auruskeviciene, Zigmas Lydeka

Abstract

The rapid growth in international marketing has created a need for cross cultural consumer research in a fast changing environment (Douglas, Morrin and Craig, 1994). Two major deficiencies have been distinguished in cross-cultural research (e.g. Douglas and Craig, 1983; Douglas and Craig, 1992; Boddewyn, 1981; Albaum and Peterson, 1984; Yaprak, 2003): lack of strong theoretical framework and difficulties concerning data collection in more that one country, data comparability and implementation of methodological techniques. Scholars have discovered that their models and measures have to be psychometrically sound across cultures. Therefore, there is a need to pay a greater attention to the methodological rigor and conceptualisation, design, and application of the research tools, analysis in drawing conclusions from research findings when conducting cross-cultural studies. Thus, the purpose of this paper is to examine cross-cultural consumer research conducted during the 1990-2003 years period from a methodological perspective.

The paper is structured as follows: first, we review the literature on key issues involving studies in culture and consumption and role of values in consumer behaviour. Subsequently identify methodological difficulties that are commonly overlooked by cross-cultural/national research, concerning conceptualisation, design and application of research tools, construct and other equivalencies, choices in the design of the study and in analytical techniques used. Finally we present some conclusions.

Key words: cross-cultural research methodologies, consumer behavior, cultural approach.

Introduction

Markets are becoming more and more geographically integrated; therefore, there is a need to conduct research that would extend a single country’s boundaries in order to examine changing consumption behaviour. Marketers and policy makers need to understand the role of consumption activities in order to position products in a way which would enable to influence consumption behaviour. Indeed, for a brand to be successful in the market, companies should ensure that their brand positioning strategy adequately responds to the core values and needs of consumers. Companies which act so on a global basis will find it easier to attain competitive advantage over those that do not (Hofstede, Steenkamp and Wedel, 1999).

Subsequently, research should be conducted in multiple countries rather than in one country (ibid), which requires new developments in cross-cultural research methodology. Methodology issues in cross-cultural research have been the subjects of research for many scholars across several disciplines over the past years (Samiee and Jeoung, 1994; Parameswaran and Yaprak, 1987; Davis, Douglas and Silk, 1981; Douglas and Craig, 1983; Sekaran, 1983; Cavusgil and Das, 1997; Mullen, 1995).

Theory

The importance of culture as a potential obstacle in expanding geographical scope of firms’ activities is crucial. Therefore, marketers need to develop a deeper understanding of local cultures and their influence upon consumers’ brand choice behaviour and purchasing decisions (Shaw and Clarke, 1998). Many early anthropological studies considered consumption of goods as a ‘loss’ of culture induced through the coming of the market and mass consumption in the developed world (ibid, 1998). Douglas and Isherwoods (1987) argued that consumption is structured around the production of class differences, with social relations forming the basis by which the
notion of ‘taste’ is constructed. Bourdieu (1984) elaborated the idea, describing how people use consumer goods to preserve their position in social hierarchy.

Miller (1995, p. 269) states that as a result culture “will no longer be regarded as an attribute to be lost or gained, but rather as a process or struggle by which all people of the world attempt to make sense of the world and make claims to social and material forms and institutions integral to the process by which we make ourselves”. This more recent view of consumption in anthropology proposes that cultures are dynamic and their change is a result of items borrowed from other cultures. Definitely items are not accepted by other cultures in their original form, instead they are assimilated in order to incorporate them into new culture (Shaw and Clarke, 1998). Subsequently, companies have to evaluate cultural changes before entering new markets with new products and preparing positioning strategies. However, the specific effects of the link between consumption and culture on individual product choices are not made clear. Therefore, it has been referred to the relationship between society and material culture (Miller, 1987), as well as contemporary social theory, recently focusing on the role of consumption in the construction of the social world (Campbell, 1999, in Shaw and Clarke, 1998). Cultural variability often leads to the development of differences in consumer behaviour within and across national borders and provides important explanations for variances in values and consumer behaviour.

The above overview illustrates the importance of incorporating culture research into market analysis in order to better understand consumers and their behaviour. As marketers remain concerned whether to standardise marketing strategies across cultures or not, there arises a need to understand the reasons of consumption differences/similarities in different cultures. The review of abundant publications has shown that very few studies are focused on cross-cultural consumer behaviour research. Moreover, more usually than not, various cross-cultural consumer studies are exploratory and lacking a strong theoretical framework, and there is a deficiency of methodological rigor in the studies mentioned.

Method

In order to carry out a conceptual synthesis of the various cross-cultural consumer studies, we entail to compare different methodologies.

Sample. For the purpose of the review of cross-cultural consumer research, this research is defined as any empirical study that investigates consumer behaviour in more than one culture. Therefore, we concentrate only on comparative studies regarding consumer behaviour. Literature makes a distinction between cross-national and cross-cultural studies conducted. “It is noteworthy, however, that a clear distinction between cross-cultural and cross-national studies cannot be made because scholarly work in the field frequently has been centred on examining dominant cultures (or their surrogates) as defined by national boundaries” (Samiee and Jeoung, 1994, p. 206). Hence, in this review no distinction between cross-national and cross-cultural studies is made.

Procedures. Although cross-cultural consumer research is crucial for business and marketing strategies, the number of research in this area prior to 1990 was quite limited. The body of cross-cultural consumer studies has grown over the last years. It is noteworthy that culture has been used to explain similarities and differences across cultures and it is becoming a leading theoretical framework in international marketing (Nakata, 2003).

Studies conducted were evaluated along the following five dimensions from the cross-cultural methodology perspective: topics of cross-cultural consumer research, research design, country selection, data equivalence and reliability check and methods of analysis. They derived (were taken) from a review of cross-cultural methodology literature (Samiee and Jeoung, 1994; Sin et al., 1999; Alder, 1983; Malhotra et al., 1996; Yaprak, 2003).

Results and Discussion

Topics of Research

This section analyses certain groups that have been studied in cross-cultural studies, how have they been produced and how researchers involved account for this, if they did it at all? In
order to explore these questions we have to take a preceding perspective and go into the earlier cross-cultural studies. We will identify some of the main characteristics in cross-cultural consumer studies, but before we do that, we will look into the findings of existing research, which in turn helps to identify gaps, which our paper seeks to fill within this field. The aim of doing this is to place our own work within the existing research context by orienting our project in relation to the existing work and taking that work as a stepping off point for designing this study. A subsequent scrutiny of studies also attempts to highlight the main features of cross-cultural studies as well as the measurement methods applied.

Within the last years the number of cross-cultural studies has increased involving a broader scope of cultures. This in turn has led to valuable but highly fragmented insights as each researcher has emphasised different issues based on different methodologies, so that the comparability of the results obtained does not seem possible. Chin, McCollough and Teoh (1987) noticed that the purpose of the cross-cultural studies has generally been to identify differences in response patterns across countries rather than similarities. Before turning to a deeper scrutiny of cross-cultural studies, it has to be stressed that consumption theories and measurement methods of values have been developed to assess the behaviour in the USA and only further were expanded to be applied in foreign markets (McCarty, 1989).

The scientific literature on cross-cultural consumer research can be divided into the following groups (Table 1): studies that focus on the culture impact on consumer behaviour (n=5), convergence of values and consumer behaviour versus divergence (n=2), country of origin in consumer behaviour (n=6), universality of American consumer behaviour models/valid measurement instruments and their testing in the cross-cultural context (n=9), studies that focus on attitudes and perceptions concerning product/brand attributes (n=5), branding/brand image (n=3), studies on consumer psychographics and segmentation (n=6). The analysis of a brief overview of the studies presented in Table 1 follows. In addition, it offers useful suggestions about the way we approach our research. The distribution of the topics offers some features of interest.

<table>
<thead>
<tr>
<th>Main Issues of the Study and Key Results</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Culture and Consumer Behaviour (n=5)</td>
<td></td>
</tr>
<tr>
<td>Impact of culture on perception, information processing, value system and self-concept</td>
<td>McCort and Malhotra (1993)</td>
</tr>
<tr>
<td>Religion and consumer behaviour</td>
<td>Sood and Nasu (1995)</td>
</tr>
<tr>
<td>Culture in moderating consumer opinion exchange behaviour</td>
<td>Dawar, Parker and Price (1996)</td>
</tr>
<tr>
<td>Author analyses implicit dimensions (values, norms, social representations) underlying consumption, globalisation and standardization concepts. Vaues orientation model is used in order to address the issue of cultural unity within diversity</td>
<td>Prime (2003)</td>
</tr>
<tr>
<td>2. Heterogenity versus Homogeneity (n=2)</td>
<td></td>
</tr>
<tr>
<td>Existence of global consumer segments and local consumer segments</td>
<td>Yavas, Verhage and Green (1992)</td>
</tr>
<tr>
<td>Divergence of consumer behaviour (Results are based on secondary data)</td>
<td>De Mooij (2001)</td>
</tr>
<tr>
<td>3. a) Attitudes and Perceptions Concerning Product/Brand Choice/Attributes (n=5)</td>
<td></td>
</tr>
<tr>
<td>Authors use means-end chain theory based on laddering technique to uncover the links between brand choice and personal values for female 11-12 years old British and Spanish consumers</td>
<td>Dibley and Baker (2001)</td>
</tr>
<tr>
<td>Comparison and differentiation of consumers’ motives for buying or not buying seafood products in two different countries. This cross-cultural study in terms of means-end chain theory allows marketers to compare and differentiate the consumers’ motives for buying fish, and the barriers that prevent them from eating more fish in the two countries</td>
<td>Valette-Florence et al. (1999)</td>
</tr>
</tbody>
</table>
Table 1 (continuous)

<table>
<thead>
<tr>
<th>Main Issues of the Study and Key Results</th>
<th>Author</th>
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</thead>
<tbody>
<tr>
<td>It has been agreed that consumers prefer to process product information attribute by attribute across available brands, especially when the number of product alternatives are few and consumer knowledge about the products is low. The current three-country study demonstrates that no any information processing style is preferred or used by consumers</td>
<td>Liefeld et al. (1999)</td>
</tr>
<tr>
<td>Authors examine the influence of cultural factors on consumers’ reasons for purchase</td>
<td>Lee and Kacen (1999)</td>
</tr>
<tr>
<td>The authors discuss means-end chain analysis as a method to understand why consumers buy certain products or brands</td>
<td>Vriens and Hofstede (2000)</td>
</tr>
</tbody>
</table>

3. b) Branding/brand Image (n=3)

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<thead>
<tr>
<th>Author</th>
<th>Ekwulugo (2003)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authors explore the dimensionality of brand image</td>
<td>Bhat and Reddy (1998)</td>
</tr>
<tr>
<td>Author analyses the relationship between brand image dimensions and values</td>
<td>Allen (2001)</td>
</tr>
</tbody>
</table>

4. Market Segmentation (n=6)

| Variable of culture in market segmentation | Lindridge and Dibb (2003) |
| Study presents the data from several applications around the world of the List of Values, considering the implications for understanding consumer behaviour cross-culturally | Kahle, Rose and Shoham (1999) |
| Authors offer a methodology to identify cross-cultural market segments, based on means-end chain theory. The methodology proposed offers the potential for integrating product development and communication strategies by linking product characteristics to consumer benefits and values | Hofstede, Steenkamp and Wedel (1999) |
| Authors offer the possibility to segment markets into peripheral (culturally open) and central (culturally closed) consumption contexts, which makes it possible to identify structures which are receptive to foreign, unfamiliar products and structures which resist globalisation | Djursaa and Kragh (1998) |
| Authors deepen an understanding how traditional segmentation theory is misused within ethnic marketing, appreciate ethnic diversity and its implications for marketing segmentation strategies and evaluate methods of market segmentation applicable to ethnic groups | Lindridge and Dibb (2003) |
| Presents data from several applications around the world of the LOV, considering the implications for understanding consumers cross-culturally | Kahle et al. (1999) |
| Study presents data from several countries. It shows how different countries and different individual consumers may be segmented based on their social values | Grunert et al. (1995) |

5. Universality of American Consumer Behaviour Models/Valid Measurement Instruments (n=9)

| Culture forms personality, which in turn modifies consumer behaviour | Samli (1994) |
| Design of scale to measure country-of-origin image and confirmation of its validity using recently defined methods for assessing measurement invariance in cross-cultural research | Knight, Spreng and Yaprak (2003) |
| CETSCALE was found to have a unidimensional factor structure for the various United States samples tested | Shimp and Sharma (1987) |
| Material Value Scale and its applicability in cross-cultural studies | Wong, Rindfleisch and Burroughs (2003) |
| Authors attempt to explore possible connections between values, time orientations and the overall attitude towards mobile behaviour in two different cultures and to test the validity of scales used in the study | Ferrandi, Valette-Florence, Prime and Ueunier (2000) |
Table 1 (continuous)

<table>
<thead>
<tr>
<th>Main Issues of the Study and Key Results</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authors make an attempt to test validity of consumer behaviour theories in emerging consumer markets and transitional economies</td>
<td>Steenkamp and Burgess (2002)</td>
</tr>
<tr>
<td>The study examines personal values across four countries and discusses individual identities and identification with groups</td>
<td>Kropp et al. (1999)</td>
</tr>
</tbody>
</table>

6. Country of Origin Studied (n=6)

<table>
<thead>
<tr>
<th>How international consumers evaluate products that are produced by strategic alliances involving multiple firms and multiple countries</th>
<th>Chao (1993)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difference between consumers in oil-producing and non-oil producing nations and their decisions to purchase imported goods</td>
<td>Metwally (1993)</td>
</tr>
<tr>
<td>Country of origin with brand name is found to be a robust determinant in consumer decision making in a cross-cultural context</td>
<td>Hulland (1999)</td>
</tr>
<tr>
<td>Results suggest that while foreign branding affects product evaluation more that country of origin, the uni-cultural and multicultural nature of the research context is influential in determining which brands are seen as foreign</td>
<td>Thakor and Katsanis (1997)</td>
</tr>
<tr>
<td>Product images may influence, or may be influenced by country images</td>
<td>Papadopoulos and Heslop (1990)</td>
</tr>
<tr>
<td>Influence of country of origin on product evaluation is relatively weak when examined in the context of multi-attribute modelling</td>
<td>Akaah and Yaprak (1993)</td>
</tr>
</tbody>
</table>

We can mention several general weaknesses of the research conducting across cultures. First, the unit of analysis was usually the country under investigation and in many cases it has proven to be challenging, so that from scrutinising one culture or country research has moved to comparing simultaneously two or more cultures. Second, while measurement models and theories were developed within a particular local context, they might not be applicable within other cultural contexts. Though it is understandable that cross-cultural studies are mostly in focus of the assessment and comparison of the USA consumers with other industrialised countries, the domination of the studies of the USA market is questionable.

Critical Evaluation of Earlier Cross–Cultural Consumer Research

In order to carry out a conceptual synthesis of various cross cultural consumer studies it is essential to compare various methodologies. As it will emerge from further discussion, methodology issues in cross-cultural research have been the subject of inquiry for many scholars (e.g., Alder, 1983; Samiee and Jeoung, 1994; Parameswaran and Yaprak, 1987; Davis et al., 1981; Douglas and Craig, 1983; Sekaran, 1983; Cavusgil and Das, 1997; Mullen, 1995) across several disciplines over the past years. Hence two major deficiencies have been distinguished in such research. In support of this argument, are, among others, Douglas and Craig (1983; 1992), Boddewyn (1981), Albaum and Peterson (1984), who hold that the main problems in cross-cultural research are as follows:

- lack of strong theoretical framework and operationalisation of variables,
- difficulties concerning data collection in more than one country, data comparability and implementation of methodological techniques.

As it will emerge, a lot of methodological consideration is given to the approaches to culture assessment as well as to research methods, which is partly due to the complexity involved in conducting the rigorous empirical study, partly due to the need of more grounded cross-cultural development, and robust findings in a cross-cultural context.

Cultural Assessment in Cross-Cultural Consumer Research. Cultural assessment is a critical issue for all cross-cultural studies because findings of studies depend on conceptualising culture (Cavusgil and Das, 1997; Samiee and Jeoung, 1994; Sekaran, 1983) and a priori definitions of the cultural groups being studied or identification of a ‘cultural’ rather than ‘national’ unit (Samiee and Jeoung, 1994; Lenartowicz and Roth, 1999). Turning first of all to the choice of an approach to assessment of the culture we prefer to consider various approaches when conducting cross-
cultural studies and assessing culture. A focus on different approaches discussed in this section is based on argument of scholars that assessment of culture is central to cross-cultural research. The authors develop different approaches to cross-cultural research: anthropological, sociological and psychological perspectives (McCort, 1992); culture centred and personality centred (Clark, 1990); ethnological description, use of proxies (regional affiliation), direct values inference, indirect values inference and multi-method framework (Lenartowicz et al., 1999); emic (e.g., Helfrich, 1999); etic (e.g., Douglas and Craig, 1983); combined emic-etic (e.g., Hui and Triandis, 1985; Malhotra et al., 1996; Berry, 1989; Brislin, 1993). All those approaches mentioned have their strengths and limitations in assessing culture as well as in obtaining more meaningful cross-cultural findings.

Having considered different approaches to culture assessment, attention has to be paid to formulating a research design in relation to cross-cultural consumer studies. The interest is turned towards two types of data collection methods: qualitative method and quantitative one as well as considerations on the sampling issues and requirements of construct equivalence and reliability as will emerge from the following sections.

**Research Methods in a Cross-Cultural Context.** Review of scientific publications in cross-cultural consumer research studies shows that researchers prefer collecting data using quantitative methods rather than qualitative ones. A survey is the most frequently used method of data collection. Content analysis and other methods are used much less frequently. Helgeson et al. (1984) observed that contrary to a review on studies conducted only in a single country shows that over 40% of studies are conducted using experimentation. Malpass et al.’s (1986) explanation why experiments are not conducted across cultures frequently may be related to the time factor when collecting data in cross-cultural studies. Moreover, “random assignment to cultural groups is impossible” (in Sin et al., 1999, p. 83).

A few studies applied means-end chains, which is a qualitative method most frequently used in cross-cultural consumer research. A good example is that of Grunert et al.’s (1996) study with the means-end-chain approach utilised. It was especially influential in consumer behaviour throughout the 1980s for the analogy that it drew between the interpretation of attributes in view of values and human action. Of special importance is the authors’ claim that there is a need to distinguish between attributes, consequences and values.

Many researchers use focus groups as an initial appraisal technique prior to larger studies. Researchers benefit from focus group inquiry as it allows them to glimpse at the phenomenon to gain valuable information on behaviour specifics prior to conducting an expanded survey. This method provides useful perceptual information as a precursor for the focus of larger research. However, the use of focus groups can cause some problems with regard to the group interaction. For instance, Gray (2003) observes that some group members will dominate the discussion. Indeed, group members may assume that the answers sought are an agreement rather than differences between them.

Generalising the brief overview of the research methods used and evaluating their strengths and weaknesses, it can be stated that the choice between these methods depends on the aim of the study. In formulating research design, considerable effort is required to ensure both the equivalence and comparability of primary data obtained from different cultures. Therefore, a discussion on the data equivalence and reliability follows.

**Ensuring Data Equivalence and Reliability for Cross-Cultural Consumer Research**

It has been widely agreed that one of the most important issues in conducting cross-cultural research is that of equivalence (e.g., Leung, 1989; Brislin, 1993; Mullen, 1995; Craig and Douglas, 2000) including deliberations on the reliability and validity. In support of this argument, among others, are Berry (1980), Samiee and Jeoung (1994), Usunier (1998). While many different authors use different terms regarding the equivalence issue we have chosen to discuss the main kinds that are touched upon the most theoretical works in comparative cross-cultural research field.

In order to fulfil the condition of measurement equivalence metric and translation equivalence of the instrument have to be evaluated before conducting a cross-cultural study (Sin et al., 1999; Yaprak, 2003). Two groups of measurement problems have been identified so far (e.g., Pa-
rameswaran and Yaprak, 1987): non-equivalence, and difficulties in establishing reliability and validity of measures. Van de Vijver et al. (1997) discuss three common causes of construct non-equivalence. The first one relates to incomplete overlap of the definitions or concepts of the construct across cultures. Another one is sourced in the differences in the appropriateness of the test content. The last one relates to incomplete coverage of the construct, that is, poor sampling of all relevant behaviours of interest when less that all relevant domains of the construct are sampled in all societies of interest.

Turning to the reliability, it should be borne in mind that in Sekaran's (2003) words: the “reliability of measure indicates the extent to which it is without bias (error free) and hence ensures consistent measurement across time and across the various items in the instrument” (p. 203). The most popular test of consistency reliability is the Cronbach's coefficient alpha (Cronbach, 1946), which is used for multipoint-scales items, and the Kuder-Richardson formulas (Kuder and Richardson, 1937), used for dichotomous items.

It would be difficult to argue the validity of findings if construct equivalence is not found in each of the countries under investigation (Malhotra, 1996; Mullen, 1995; Kumar, 2000). Recent findings of Luna and Peracchio (2001) suggest that even for bilinguals the same word might have different meanings. This approach can lead to invalid implication of findings.

Turning to the bias, two types of response bias can be discussed. Non-response bias occurs when items in some cultures are seen as sensitive, and respondents are reluctant to answer (such as age or income questions). Extreme response bias occurs when answers tend to cluster around some point in the scale, such as the high or low end of the scale. The difficulty arises in comparing the results of respondents who overreact to questions with those whose answers tend to center around mean, or the low end of the scale. It becomes difficult to determine whether the answers reflect tendencies to answer a certain way, or true national differences.

Generalising on the issues of equivalence and reliability, it has been noted that the equivalence of constructs and measurement must be assessed in order to ensure cross-cultural comparability. More specifically, it is important to evaluate such differences as non-response or extreme response style when constructing an instrument in order to avoid differences in interpretation across cultures. According to Sin et al. (1999), it is crucial to establish equivalence not only in research instrument, but also in sampling procedures and data collection in order to ensure cross-cultural comparability. Attention is now given to sampling issues, covering the unit of analysis as well as selection of cultures.

**Sampling in Cross-Cultural Consumer Research**

When turning to the sampling, at least two levels can be considered (e.g., Samiee and Jeoung, 1994; Malhotra et al., 1996; Reynolds et al., 2003): focus on the unit of analysis; sampling of the individual respondents from within each country or culture; sampling of countries or cultures.

Most scholars agree that the description of the unit of analysis is crucial in all cross-cultural research (e.g., Samiee and Jeoung, 1994; Sekaran, 1983; Malhotra et al., 1996; Ember and Ember, 2001). Therefore, there is a need to focus on “unit of analysis that are representatives of culture of interest” (Samiee and Jeoung, 1994 p. 208).

Before turning to the sampling techniques, it has been noted that in order to compare the samples between two countries investigated it is worthwhile to consider the sampling equivalence issue. Green and White (1976) claim that sampling equivalencies must be achieved by ensuring to hold age, sex, social class, and urban-rural residence constant across samples. Similarly, Malhotra et al. (1996) point out that an attempt should be made to hold age, sex, urban residence, and nationality and education level constant between countries under investigation.

The criticism of the sampling of respondents can be divided into two areas: the sampling method/technique and the sample. The points made above refer to the sampling methods/techniques being used for selection of respondents in literature of cross-cultural research. The most common criticism with regard to sampling method is focused on non-probability sampling. Whereas probability sampling is more appropriate in monocultural research, review of the literature on cross-cultural studies shows that the most common method is various forms of non-
probability sampling. While Douglas and Craig (1983), Sin et al. (1999) and other researchers point out that the non-probability selection of the sample limits the external validity and generalizability of the results in cross-cultural research, Malhotra et al. (1996), van de Vijver and Leung (1997) and Mockaitis (2002) advocate that probability sampling is of limited use in cross-cultural studies. According to Cavusgil and Das (1997) probability sampling is seen as a “luxury afforded for a few cross-cultural researchers” (p. 80). The main argument leading to the consideration of the techniques of non-probability sampling is that if probability sampling were utilised and random samples were used in such a study, then it would be difficult to conclude whether the differences/similarities between respondents can be explained by cultural or by demographic variables.

Malhotra et al. (1996) suggest both quota sampling method and snowball sampling methods for cross-cultural studies. However, both suggested methods have limitations. Firstly, control for respondent selection bias is required. Secondly, the control of influence of culture is not possible when comparisons across cultures are made, using both quota and snowball sampling.

In addition, Van de Vijver and Leung (1997) suggest two possible sampling methods for comparative studies. Matched sampling is the first method offered, which requires samples to be made as similar on as many variables as possible, so that only cultural differences remain. Similarly Hofstede (1991) and Mockaitis (2002) render that in matched samples, it must be ensured that they are functionally equivalent, that is, the sample drawn from the population in one country must be equivalent to the sample from another country in all aspects except nationality. The second Method of statistical control requires the demographic variables on which the groups vary to be measured and treated as covariates. When comparisons across cultures are made, it is then possible to control for these variables.

**Selection of Country in Cross-Cultural Consumer Research**

Having established recommendations with regard to the sample size and unit of analysis, it is close at hand to theoretically determine the requirements for the countries to be chosen in cross-cultural context. According to Adler (1984), theoretical foundation is a prerequisite for the selection of countries under scrutiny. Hence theoretical deliberations covering three main aspects for the choice of countries follows.

It is important to select more than one culture, so that findings obtained could be generalised (Samiee and Jeoung, 1994; Sekaran, 1983; Malhotra et al., 1996). Moreover, cultures selected should have only one culture. Though the majority of cross-cultural consumer research studies were conducted and results were compared only in two countries (e.g., Dibley and Baker, 2001), a valid comparison at least between two cultures is possible (Samiee and Jeoung, 1994) if cultures are selected correctly.

Another means of ensuring meaningfulness in cross-cultural consumer research is choice of homogeneous cultures. Both culture and nation have distinct meanings. In other words, the likening of culture to nation is critical to the cross-cultural study. Cultural differences exist even among groups within one heterogeneous country (Triandis, 1972), and sometimes even greater similarity of subjective cultures could be observed across nations than between various groups within a nation. The final requirement in the choice of the target countries for the study is based on a combination of market size and geographical distance (see Dunning, 1993).

Concluding it can be stated that the choice of the sampling methods and size as well as selection of countries should be based on theoretically grounded arguments. Furthermore, the sampling choice depends on the objective of the study. It is also instructive to bear in mind that probability sampling is not always necessary and it depends on the type of research that is being conducted.

**Investigating the Methods of Analysis in Cross-Cultural Consumer Research**

The overview of abundant scientific literature regarding cross-cultural consumer research has shown that many different statistical techniques have been employed in cross-cultural consumer research. It has been noted that researchers use statistical techniques rather than interpretations of interview data or means-end-chains. The statistical techniques used include frequency tables (e.g., Kahle et al., 1999; Liefeld et al., 1999), correlation (e.g., Rose et al., 1999; Lee et al.,
analysis of variance (e.g., Kropp et al., 1999; Donoho et al., 1999), factor analysis (Yu and Albaum, 1999), and other multivariate statistical techniques. The measurement method used in the questionnaire restricts the statistical analyses which can be employed. In testing differences between groups, t-tests are used if there are metric data (interval or ratio), while chi-squared analyses are used if there are non-metric data (nominal and ordinal). Peng et al. (1991) point out that “multivariate techniques offer a better understanding of subtle differences among cultures, furthermore, univariate analysis may be too general to successfully delineate the nature of cultural differences” (in Samiee et al., 1994, p. 214). Therefore, future studies have to employ different kinds of statistical techniques in order to identify differences across cultures correctly and meaningfully (ibid).

Conclusions

As far as methodological issues are concerned, it is obvious that important factors of cross-cultural methodology are frequently overlooked by investigators despite the many important contributions of the cross-cultural consumer research literature to the field mentioned. Recent cross-cultural studies still suffer from the lack of a number of methodological limitations, such as deficiency of conceptualisation of culture, domination of quantitative research methods, non-equivalence in sampling and heterogeneity of cultures, translations of items of research instrument, and problems establishing conceptual and metric equivalence, similarity of methods of analysis of data collected.

Critical estimation of earlier cross-cultural consumer research conducted during the 1990-2003 years period revealed that no one earlier study assessed conceptualised culture. Indeed, the findings of studies are dependent on this issue. Only few studies employed only qualitative research methods (e.g., Grunert’s et al., 1996) rather than the rest studies applied quantitative ones. A review of cross-cultural consumer research literature shows a lack of concern for psychometric rigor (Roberts, 1970) and measurement equivalence (Craig and Douglas, 2000). Hence it is not clear whether findings are the results of true cross-cultural differences or the result of measurement incongruity (Steenkamp and Baumgartner, 1998; Knight et al., 2003). Careful considerations should be given to issues of the sample size and the number of countries being investigated. Whereas in view of the choice of respondents there is no doubt that the selection of sample within cultures largely affects the ability to interpret findings and generalise the results, only a study of Akaah and Yaprak (1993) considered both sampling and country selection aspects. Several studies employed more than one statistical technique in the analysis. It demonstrates a high level of rigor in analysing data collected.

It is hoped that this study can help to draw more attention and to consider various conceptual and methodological issues if unequivocal findings are to come out.

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