CROSS-CULTURAL VARIATIONS IN CONSUMER BEHAVIOR: A LITERATURE REVIEW OF INTERNATIONAL STUDIES

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Abstract

This study presents a review of 85 peer-reviewed publications of cross-cultural variations in consumer behavior. The objectives of this study are to systemize conceptual and methodological approaches to research of cross-cultural variations in consumer behavior; to present an extended understanding of consumer behavior in related industries; to identify conceptual and methodological gaps and empirical issues in these studies; and by fulfilling the objective of this paper to develop an agenda guiding further research in a systematic manner. This literature review reveals the lack of a unified conceptual approach to defining cross-cultural variations and the absence of a unified terminology related to cross-cultural research. It also highlights methodological areas susceptible to common method bias, which hinders the establishment of equivalence in studies of cross-cultural variations in consumer behavior. This review accentuates the "cross-cultural variations" concept in consumer behavior research, covering both the differences and similarities that are the subject of cross-cultural studies. Furthermore, the current study outlines relevant contributions for theoretical and potentially managerial implications based on the study's insights.

Keywords: *Cross-cultural variations, consumer behavior, data equivalence, measurement equivalence.*

JEL*: M0, M31, M39*

INTRODUCTION

The timeliness of studying the behavior of consumers from different cultures in an increasingly fragmented world is demonstrated by the dynamic growth of the number of published cross-cultural studies and the rise of special issues of consumer behavior-related journals. Researchers challenging consumer behavior variations from a cross-cultural standpoint encounter substantial challenges, including issues that arise from the diversity of domains and interdisciplinary approaches, such as the variety of methods for the collection, processing, analysis and interpretation of data, and issues related to method biases and scale equivalence (Steenkamp et al. 1998).

In order to mitigate these challenges for cross-cultural research and to define future research streams,

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and emphasizing the growing body of research in a cross-cultural context in accordance with previous researchers (Perfetto 2010; Kipnis et al. 2014), this study as a literature review attempts to systemize the theoretical lenses used to study cross-cultural variations in consumer behavior and propose key questions relevant to the development of a cross-cultural marketing strategy. It complements the contributions of Sin et al. (1999), Malhotra et al. (1996) and McCort et al. (1993), who review methodological issues at all stages of the marketing research process, and recent cross-cultural consumer studies providing guidelines for addressing these issues and expanding the body of scientific methodological literature in cross-cultural research. Other reviews, covering periods of more than 10 years, classified studies according to conceptual and methodological criteria. Engelen et al. (2011)—in a 1990–2008 study—and Salciuviene et al. (2005)—in a 1990–2003 study—did not limit their examinations to a specific industry, whereas Zhang et al. (2008)—in a 1996–2006 study—examined only the services market. We focus on theoretical, methodological and conceptual variations by doing a systematic literature review and focusing on content analysis.

The number of studies that use a cross-cultural research designs in management-relevant domains has been increasing steadily. However, the previous major reviews referred to cover the period up to 2003, 2006 and 2008. The period after 2008 has not been covered by any major studies covering the theoretical and methodological aspects in international marketing. This study, which covers papers published in 50 marketing and business journals, elaborates on the conceptual and methodological aspects of an analytical review of 85 international studies of cross-cultural variations in the behavior of end-consumers. We conducted research over a 17-year period from 2000 to 2016. Among the 85 target studies, 10 studies are of a theoretical nature. The remaining studies are empirical, based on secondary or primary data.

By contrasting many cross-cultural studies emphasizing the divergences in behavior and differences in the considered markets, this review accentuates the "cross-cultural variations" concept in consumer behavior research covering both differences and similarities, which are the subject of cross-cultural studies. However, a conceptual understanding of the subject of this research was not found in the literature. In recent decades migration became an essential point in creating globalization both politically and economically (Askegaard et al. 2011; Zeugner-Roth et al. 2015; Sandikci et al. 2016; Kotorri 2017). This explains practitioners' and scholars' interest in understanding different cultures and consumers from subcultures. This interest increases the importance of reflecting on cross-cultural variations in research activities covering a wide scope of industries. Both international practitioners and researchers have had problems in interpreting findings or deriving implications (Mooij 2015). This literature review sheds light on intercultural studies in order to identify procedures for coping with the lack of a unified approach used in cross-cultural research on consumer behavior. We raise alerts for major method biases in studies and critically review the interpretation of results.

The objectives of this research are:

– *Objective 1:* Systemizing conceptual and methodological approaches to consumer behavior research in cross-cultural domains;

– *Objective 2*: Covering different industries in the B2C market and to present an extended understanding of consumer behavior in related industries

– *Objective 3*: Highlighting conceptual and methodological areas, particularly equivalence-related issues; and

– *Objective 4*: Developing an agenda to guide further research in a systematic manner.

This paper is structured as follows: First, we describe the methodology of collection, analysis, and interpretation of data. Second, we systemize conceptual and methodological approaches to consumer behavior research in cross-cultural domains. Third, we explore research methodologies, concentrating on research validity issues and method biases. Finally, we assemble the results and propose potential areas for future research.

METHODOLOGY

Considering the broad range of international studies on cross-cultural variations in consumer behavior, we used the following search limitations to identify our initial set of relevant studies:

1. The theoretical, methodological, or empirical nature of the study.

2. Focus on end-consumer and consumer behavior in a B2C market.

3. Focus on the comparative analysis of cultures/subcultures.

4. Focus on detecting variations/differences in the behavior of consumers from different countries/cultures/subcultures.

5. Pertinence to the marketing domain.

6. Publication in scholarly journals from 2000 to 2016.

7. Written in English.

The methodology of this literature review combines the proceedings of Seuring et al. (2012) and Aliyev et al. (2017) in a sequential manner and presents similarities in prominent content analysis and systematic methodological approach (Gaur and Kumar 2017; Rajeev et al. 2017; Elo et al. 2014; Vaismoradi et al. 2013):

1. Definition of research objectives: classification of studies according to conceptual and methodological criteria.

2. Development of search criteria resulting in three sets of keywords. We paired with one of the following: «cross-cultural», «intercultural», «cross-national», "cross-country", "cultural" or "inter-national" (included in the title of the article) paired with «consumer behavior» (included in either title or the abstract of the article) and with one of the following: «variations», «differences», «variety», «divergence», «diversity» or «dimensions» (included in the title of the article). Due to a strong focus on identifying studies on cross-cultural variations/differences, only articles with the corresponding keywords in the title were the result of the initial search.

3. Retrieval of relevant articles from eight databases (Emerald, Springerlink, Sciencedirect, Wiley, Taylor and Francis, DeGruyter, Google Scholar and Yandex) indexing scholarly journals on marketing and consumer research.

4. Manual examination for meeting the above criteria, resulting in the final selection of 85 studies for analysis.

5. Categorization of all studies with respect to the 19 criteria assigned to three categories:

The first category concerns the study description, in which we highlight the problem, present an existing research gap, study objective, research method/approach, sample characteristics, as well as missing data analysis methods, findings, and marketing practices/implications.

The second category concerns the market description, focused on the examined market (tangible and intangible goods), individual consumer factors of influence, external factors of influence on consumer behavior, and the variables used to describe the market.

The third category is about cultural descriptions ranging from the quantity of considered cultures

and focus of comparison, definition of cross-cultural variations in consumer behavior, cross-cultural dimensions, cross-cultural models, cross-cultural theories, cross-cultural constructs, and revealed cultural variations in consumer behavior.

6. Qualitative content analysis of results interpretations and conclusions.

Preliminary search queries showed that comparative studies across cultures use one of the four terms stated above as a focus of the study. These resulted in the already selected 75 studies plus another 17 articles, bringing the total number to 92 relevant studies

As a result, 92 articles were identified and additionally reviewed for conformability with the given criteria. Seven articles were discarded due to their focus on a B2B market or cross-cultural management issues with a lack of marketing focus. Therefore, 85 studies were selected for the objectives of this research.

Literature reviews are distinguished in bibliometric citation analysis and content analysis. In the latter, to achieve set research objectives, it is essential to both conduct a comprehensive analysis of existing studies on consumer behavior variations in a cross-cultural context and to limit the number of studies by systematically refining search results.

The resulting studies came from 50 marketing, business and industry journals. The majority of studies were drawn from leading international business and marketing journals (Table 6).

Applying this procedure, this study aims at a quantitative, objective, and systematic description of the studies' content (Kassarjian 1977; Bos 1999; Camprubi et al. 2016). Our analysis builds upon a formalized method of corpus data and provides content analysis combining qualitative and quantitative tools, hinging on formalization and the frequencies of constructs included in empirical studies. We identified the main conceptual units and coded them for analysis. This technique is widely used in international marketing research (Engelen et al. 2011; Nakata et al. 2005; Whitelock et al. 2007), particularly in literature reviews.

This methodology enables us to classify the selected studies according to conceptual and methodological approaches used to examine cross-cultural variations in consumer behavior.

RESULTS

All of the selected articles give us a chance to present results based on several criteria, including a review of the conceptual approach, definitions of cross-cultural variations, underlying theories, constructs

used in the studies, research outlets, and the research methodologies of selected studies.

Review of conceptual approaches used to examine cross-cultural variations in consumer behavior

We single out major research streams in cross-cultural consumer studies, which can then be subdivided according to their focus on a certain domain. Research on cross-cultural differences in consumer behavior focuses on the study of consumer psychology (62% of constructs), followed by consumer behavior (18%), and sociology (12%). The remaining research streams originate from marketing management-related domains in the fields of service, market segmentation, advertising, and product variety decisions. We classify studies by:

a) Definition of the "cross-cultural variations" concept pertinent to consumer behavior (Tsai et al. 2014; Van der Lans et al. 2016; Yang et al. 2015).

b) Underlying theories (Kagitcibasi 2017; Stahl et al. 2015; Mooij 2015).

c) Constructs within consumer behavior, consumer psychology, and sociology domains (Buzova et al. 2016; Kastanakis et al. 2014; Cohen et al. 2009; Chang et al. 2006).

d) Conception of culture (e.g., Hall 1976; Hofstede 1980; House et al. 2004; Kluckhohn et al. 1961) and the dimensions behind the studies' framework.

e) Combination of exogenous factors influencing consumer behavior in cross-cultural research.

Definition of "Cross-cultural variations"

Cross-cultural variation reflects the interconnectedness between cross-cultural research, consumer behavior, and marketing, which presents challenges to its definition. "Cross-cultural variations" served as a search criterion for this study; however, none of the articles contained a clear definition of this concept. Four articles (5%) used a "cross-cultural variations" concept without focusing on its definition. Fourteen articles (16%) provided only a definition of culture. Most authors based their research on the definition of culture by Hofstede 1980 (Cohen 2009; Luna et al. 2001;

Schumann et al. 2010; Weiermair 2000). Hofstede defines culture as "the collective programming of the mind that distinguishes the members of one group or category of people from another" (Hofstede 2001, p. 9).

This lack of definition raises the following questions for consideration in future research:

Is it legitimate to consider "cross-cultural variations" as a concept in the consumer behavior domain? If so, is it acceptable to base the definition of "cross-cultural variations" on the definition of "culture" alone?

Is it justifiable to equate the concept of "cultural variations" and "cross-cultural variations"?

The lack of a unified terminology in cross-cultural consumer behavior research presents a significant challenge for future research. Most of the studies (61%) use "cross-cultural" in their titles; 8% and 7% use the terms "cultural" and "cross-national", respectively; less than 3% have "intercultural," "national," "cross-country," or "international" in the title.

Almost 20% of the studies focus on exposing cross-cultural differences; however, they use different terminology in the titles: "cross-cultural differences" (9), "cross-country differences (1), "cross-cultural variations" (1), "cross-national differences" (1), "inter-national differences" (1), "cultural differences" (1), and "intercultural differences" (1). In 52% of studies, the authors use a "culture" construct for cross-cultural analysis, but 30% use a "country" construct (the remaining 18% used terms like "region" or "subculture"). Thus, it is imperative to develop a unified conceptual approach to defining cross-cultural differences (variations) as a construct within the consumer behavior domain and to determine the level of relevance in the use of "culture," "country," and "cross-/inter-/-cultural/-national/-country" constructs.

Underlying theories

The examined studies were based on cross-cultural, behavioral, psychological, sociological, economic, and/or marketing theories (see Table 1.).

As seen in Table 1, 55% of cross-cultural research in the consumer behavior domain is rooted in a cultural dimension.

Table 1: Theories Used in Examined Studies

Research domain	Theory	Number of studies *, (%) **
Cross-cultural theories	Cultural dimensions theory	47 (55)
	High-/ low-context culture theory	18 (21)
	Theory of independent and interdependent self-construal	8 (9)
	Theory of basic values	7 (8)
	Values orientation theory	2 (3)
	Culture theory	2 (2)
Behavioral theories	Behavioral decision theory	5 (6)
	Theory of reasoned actions	2 (2)
	Theory of planned behavior	1 (1)
Sociological theories	Conspicuous consumption theory	2 (2)
	Uses and gratifications	1 (1)
	Social comparison theory	1 (1)
	Consumer culture theory	1 (1)
	Conflict theories	1 (1)
	Institutional theory	1 (1)
	Assimilation theory	1 (1)
	Social adaptation theory	1 (1)
	Media system dependency theory	1 (1)
	Optimal distinctiveness theory	1 (1)
	Theory of impression management	1 (1)
Psychological theories	Evaluation—apprehension theory	2 (2)
	Information processing theory	2 (2)
	Means-end theory	2 (2)
	Hedonic and experiential theory	1 (1)
	Social facilitation theory	1 (1)
	Expectancy—disconfirmation theory	1 (1)
	Theory of psychological reactance	1 (1)
	Attribution theory	1 (1)
Economic and marketing theories	Prospect theory	2 (2)
	Branding theories	1 (1)
No theories mentioned		11 (13)

* Many studies cover more than one theory; therefore, the total number of studies does not equal 85 (100%).
** Percentage (%) represents the share of articles that use a certain theory, compared to the total number of articles.

Constructs within the consumer behavior, consumer psychology, and sociology domains

Classifying the examined studies according to their main domains, namely consumer behavior, consumer psychology, and sociology, shows that individual consumer behavior constitutes the core of analysis. Cross-cultural research assists in understanding how culture affects the decision-making process of end consumers.

Table 2, based on Lawson's (2010) classification, reveals that cross-cultural analyses of consumer behavior frequently use consumer psychology constructs. These psychological constructs are distinguished as individual factors of influence on consumer behavior in a certain culture. The examined studies most often use purchase intentions, attitudes and preference, and attention and perception constructs (13%, 12%, and 12%, respectively).

Table 2: Constructs Pertinent to Consumer Psychology in Cross-cultural Research of Variations in Consumer Behavior

Constructs pertinent to consumer psychology (research stream)	Total*, (%)**
Purchase intention	14 (13)
Attitudes and preferences	13 (12)
Attention and perception	13 (12)
Satisfaction and dissatisfaction	10 (10)
Personality	8 (8)
Values	8 (8)
Cognitive processing	7 (6)
Affect, emotion, and mood	7 (6)
Self-concept and image	5 (5)
Trust	4 (4)
Information processing	4 (4)
Motivation and involvement	4 (4)
Loyalty	4 (4)
Perceived risk	2 (2)
Aesthetics and hedonics	1 (1)
Expertise and knowledge	1 (1)
Total	105 (100)

*Studies often use more than one construct pertinent to research streams.
**Percentage (%) represents the share of certain constructs among all constructs used.

Table 3 shows that the ranking of constructs pertinent to consumer psychology according to frequency of use corresponds to the ranking of 179 measured dependent variables. Dependent variables at the top of the ranking, namely buying intentions (8%), attitude (6%), and perception (5%), coincide with the respective individual factors of influence on consumer behavior.

Table 3: Measured Dependent Variables in Cross-cultural Research of Variations in Consumer Behavior

Most frequently measured dependent variables*	Total (%) **
Intention (to purchase)	15 (8)
Attitude (to brand, advertising, etc.)	10 (6)
Perception (of quality, brand, etc.)	9 (5)
Satisfaction (with service, etc.)	9 (5)
Importance (of attributes, country of origin, etc.)	7 (4)
Preference (for symbolic and hedonic meanings, etc.)	7 (4)
Evaluation (of service quality, consumer product, etc.)	7 (4)
Autonomy (emotional, functional, etc.)	7 (4)
Consumption (intensity, frequency, etc.)	6 (3)
Loyalty (to brand)	5 (3)
Motivation (hedonic shopping, etc.)	3 (2)
Skepticism (e.g. toward advertising in general)	2 (1)
Perceived risk (of online shopping, etc.)	2 (1)
Use (of internet banking, etc.)	2 (1)
Other measured dependent variables	88 (49)
Total	179 (100)

*Studies often use more than one construct pertinent to research streams and measured dependent variables.
**Percentage (%) represents the share of certain constructs among all constructs used.

Table 4 provides a ranking of constructs pertinent to consumer behavior by frequency of use. The decision-making process (24%), decision-making criteria (17%), and buying behavior (17%) rank as the top constructs. Our analysis highlights the correspondence of these constructs to the main stages of the consumer decision-making process in cultures upon which our examined studies focus.

Table 4: Constructs Pertinent to Cross-cultural Variations in Consumer Behavior Research Stream

Constructs pertinent to consumer behavior (research stream) *	Total (%**)
Decision-making process: consumption and evaluation	10 (24)
Decision-making criteria	7 (17)
Purchase behavior	7 (17)
Complaint behavior	6 (14)
Symbolic consumption	4 (9.5)
Variety seeking	4 (9.5)
Possessions	3 (7)
Time-orientation	1 (2)
Total	42 (100)

*Studies often use more than one construct pertinent to research streams
**Percentage (%) represents the share of certain constructs among all constructs used

Table 5 offers a sociological perspective, showing the significance of demographics (30%), social and reference group (26%), and family as a reference group (18%) in studies of cross-cultural variations in consumer behavior.

Table 5: Constructs Pertinent to Sociological Issues in Studies of Cross-cultural Variations in Consumer Behavior

Constructs pertinent to sociological issues (research stream) *	Total (%**)
Demographics	7 (30)
Social and reference group	6 (26)
Family	4 (18)
Culture	1 (4)
Consumer socialization	2 (9)
Ethnicity	2 (9)
Consumer ethics	1 (4)
Total	23 (100)

*Studies often use more than one construct pertinent to research streams
**Percentage (%) represents the share of certain constructs among all constructs used

Publication outlets for reporting cross-cultural variations in consumer behavior

The studies in our data sample are published in 50 different journals. The journals mentioned below are among the leading journals in their discipline. The remaining 39 journals mostly account for one study each in our corpus. This result already hints at a lack of focus in the domain of cross-cultural variations in consumer behavior. However, it is remarkable to see the quality of each journal, all of which are Scopus Journals and SSCI (Social Science Citation Index), with the exception of the Journal of Consumer Marketing, which is indexed in Emerging Sources Citation Index and Scopus. However, the other journals include 39 different journals with a wide variety in terms of indexing, ranging from the Social Sciences Citation Index to EBSCO.

Additionally, we assess the studies taken into consideration for the current literature review in terms of their citation numbers. We checked all studies by using Google Scholar search. Among the 85 articles, the most cited studies are Kassim et al. (2005)'s study, which concerns e-commerce settings with several dimensions; Kim et al. (2009)'s study on cross-cultural consumer values and purchase behavior; Craig et al. (2006)'s study on the further implications of cultural dynamics for consumer research; Bellman et al. (2004)' study on international differences in information privacy concerns; and Chang et al. (2006)'s study, which explains the cross-cultural consumer brand relationship by using an experiential view. Notably, all of these studies reached more than 400 citations by 2017.

Table 6: Sampling of studies depending on variation of journals

Name of journals	Total (%)
International Marketing Review	12 (14)
Journal of Consumer Marketing	9 (11)
European Journal of Marketing	4 (5)
Journal of Business Research	4 (5)
Journal of Consumer Behavior	3 (4)
Psychology & Marketing	3 (4)
Cross-cultural Management: An International Journal	3 (4)
International Journal of Hospitality Management	2 (2)
Journal of Culture, Tourism and Hospitality	2 (2)
Asia Pacific Journal of Marketing and Logistics	2 (2)
International Journal of Research in Marketing	2 (2)
Others	39 (45)
Total	(100)

The cross-cultural models and dimensions behind the examined studies' frameworks

Cross-cultural studies in consumer behavior and other associated domains are grounded in cross-cultural models and dimensions. Both Zhang et al. (2008) and Dumetz et al. (2014) created classifications of cultural models and dimensions. Researchers from the examined studies focused on fewer cultural models (Table 7).

Table 7: Cultural Models and Dimensions Used in the Examined Studies

Cultural models (source)	Cultural dimensions	Research approach			
		Number of theoretical studies		Number empirical studies	
		Dimension is mentioned	Dimension is used	Dimension is mentioned	Dimension is used
Values orientation theory (Kluckhohn et al. 1973)	Human nature orientation	-	-	-	-
	Man-nature orientation	1	-	1	-
	Time orientation	1	-	-	-
	Activity orientation	1	-	-	-
	Relational orientation	-	-	-	-
High-/low-context culture theory (Hall 1976)	High-context/Low-context	1	1	5	8
Cultural dimensions theory (Hofstede 1980)	Masculinity/Femininity	2	4	10	16
	Individualism/Collectivism	3	6	13	27
	Power distance	2	5	15	18
	Uncertainty avoidance	1	4	8	17
Hofstede Bond model (1988)	Long-term/Short-term orientation	-	2	6	8
Theory of independent and interdependent self-construal (Markus et al. 1991)	Independence/Interdependence	2	1	1	3
Theory of basic values (Schwartz 1992; 1994)	Embeddedness/Intellectual/Affective autonomy	-	1	1	1
	Hierarchy/Egalitarianism	-	1	1	1
	Mastery/Harmony	-	1	1	1
Individualism/Collectivism model (Singelis et al. 1995)	Individualism/Collectivism	3	-	3	5
7 Dimensions of culture model (Hampden-Turner et al. 1997)	Universalism/Particularism	-	-	-	-
	Communitarianism/Individualism	-	-	-	-
	Neutrality/Emotionality	-	-	1	-
	Defuse/Specific cultures	-	-	-	-
	Achievement/Ascription	-	-	-	-
	Human-time relationship	-	-	-	-
	Human-nature relationship	-	-	-	-
Model of Triandis et al. (1998)	Horizontal/Vertical individualism and Collectivism	-	-	-	3

Table 7: *Continued*

Inter-level integration theory on correlation between culture and effectiveness of human behavior in society, organization and management processes (GLOBE 2004)	Performance orientation	-	-	-	
	Future orientation	-	-	-	-
	Uncertainty avoidance	-	-	-	-
	Power distance	-	-	1	1
	Humane orientation	-	-	-	
	Institutional collectivism	-	-	-	-
	Gender egalitarianism	-	-	1	-
	In-Group collectivism	-	-	1	
	Assertiveness	-	-	-	-
Cultural classification models (Schuster et al. 2006)	Task	-	-	1	-
	Relationship	-	-	1	-
	Time	-	-	1	-

Table 8: Studies Grounded in Culture Models/Dimensions

No. of studies grounded vs not grounded in cultural models	Theoretical Studies	Empirical studies	Total, units	Total, %
Studies grounded in cultural models	9	50	59	69%
Studies not grounded in cultural models	1	25	26	31%
Total number of studies, units	10	75	85	100%

Table 7 shows that Hofstede's (1980) scales of individualism/collectivism, power distance, uncertainty avoidance, and masculinity/femininity are the most frequently used cultural dimensions in research on cross-cultural variations in consumer behavior. However, this means many researchers are not considering more up-to-date methods of defining and measuring cross-cultural differences, such as the 7 Dimensions of culture model (1997) and GLOBE model (2004). Table 7 shows that 69% of the studies are based on cultural dimensions, the majority of which (81%) apply these to their research, while 19% per cent only mention them. Over one-third (31%) of examined studies conduct a comparative analysis of behavioral constructs without grounding it in cross-cultural dimensions.

Conjoint factors influencing consumer behavior

Table 9 reflects a broader range of potential external factors of influence on consumer behavior compared to the traditional approach used in cross-cultural research (Solomon 2010), which stipulates that social, cultural, and ethnic factors, as well as the influence of family and groups, are the main external factors of influence on consumer behavior. Considering contextual biases ranging from method effects generated by a common source to social desirability (Ganster et al. 1983; Podsakoff et al. 2003). These discussions date

back more than 45 years (Campbell et al. 1959) and are thought to be a cultural subsystem that along with socio-economic and regulatory subsystems, comprise an institutional system determining market conditions and therefore consumer behavior.

Table 9: Factors of Influence on Consumer Behavior in Cross-cultural Studies

Factors of influence on consumer behavior in cross-cultural studies*	Total (%**)
Cultural	81 (95)
Social	45 (53)
Economic	18 (21)
Marketing activities	16 (19)
Political (regulation)	6 (7)
Factors of immediate environment	4 (5)
Situational factors	2 (2)
Social media	2 (2)
Historical	2 (2)
Ethnic	1 (1)
Religious	1 (1)
Climate	1 (1)
Not identified	4 (5)

* We identify more than one factor of influence in most studies
** Percentage (%) represents the share of articles mentioning a particular factor

Cultural factors (95%) predominate in cross-cultural studies, but social (53%) and economic (21%) factors are also considered. Scholars have recently begun to account for several exogenous factors that are unconventional in marketing and consumer behavior research. These include macroeconomic factors (transparency, urbanization levels), political factors (state regulation of markets, oversight of production and advertising placements, state regulation and control of food safety, quality of medical care and healthcare systems), situational factors (immediate and social environment, time, the consumer's objective, the consumer's pre-existing condition), and historical factors (heritage and transformations of the economics systems e.g., Chile, China or Russia).

Review of methodological approaches used to examine cross-cultural variations in consumer behavior

We classify and analyze the examined studies according to methodological criteria and identify domains subject to method bias that harms the validity of statements in conclusions or may mislead the researchers (Podsakoff et al. 2003). In cross-cultural analysis, prominent previous scholars (Burgess et al. 2006; Bagozzi et al. 1991) suspected that common method biases are not dealt with efficiently.

In line with the key stages of marketing research, we classify studies by data collection techniques, sampling procedures and data analysis techniques (Figure 1).

Data collection: use of qualitative and quantitative methods

Our analysis of methods of data collection in studies of cross-cultural variations in consumer behavior reveals that the use of quantitative research methods, especially surveys, is prevalent (Table 10). Notably, qualitative research methods such as focus groups and in-depth interviews, as well as multi-method approaches, are fairly represented.

Establishing equivalence by means of comparability of data used for scientific analysis remains a crucial challenge for researchers aiming to reduce research failures. Several types of equivalence, including construct (conceptual) equivalence, scalar equivalence, and translational equivalence, are relevant in cross-cultural research. For instance, at the research design stage and data collection stages of research design and collection of data it is essential to ensure translational equivalence by utilizing various translation techniques. While 55% of empirical studies did not provide a description of methods used to ensure translational equivalence, 45% used such techniques.

Figure 1: Research Methods Employed in Studies of Cross-cultural Variations in Consumer Behavior
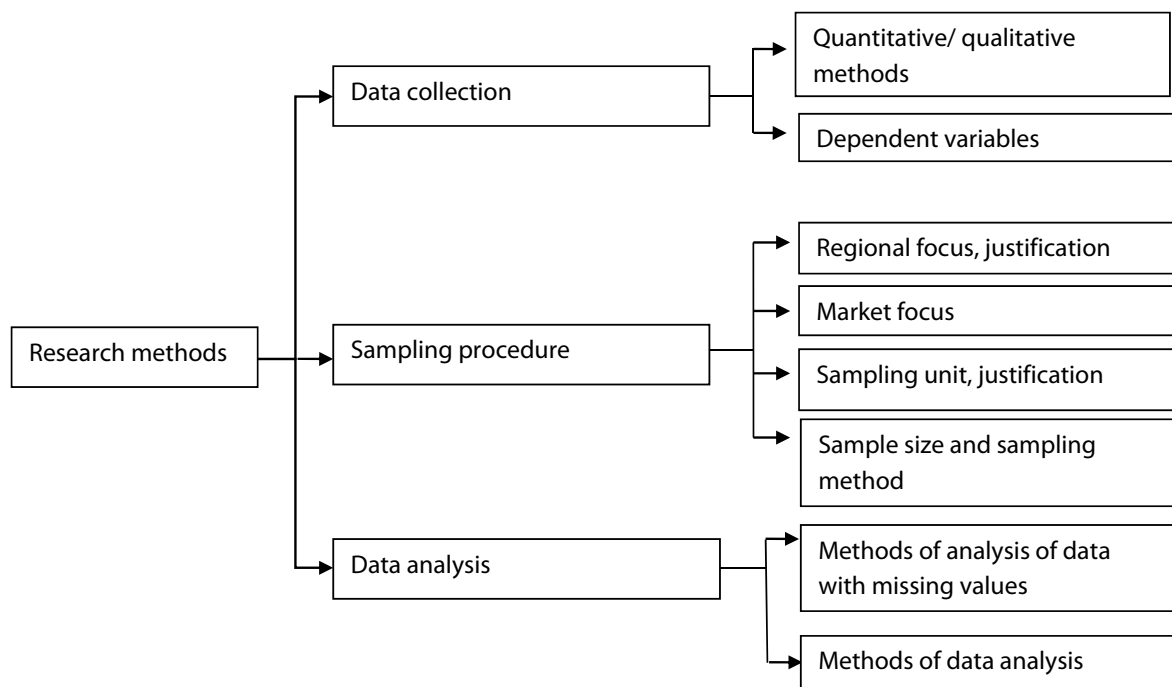
Table 10: Methods of Data Collection

Method of data collection	No. of studies, (%)*	Units of examined sample					
		Consumers				Product (motion pictures)	Secondary data
		Non-students		Students			
		Traditional customers	Online customers (web-users)	Traditional customers	Online customers (web-users)		
Literary analysis	69 (81)	Not applicable					
Survey	63 (74)	30	9	20	4	-	-
Multi-method approaches	9 (11)	4	-	5	-	-	-
Observation (archival)	8 (9)	-	-	-	-	1	7
Focus group	7 (8)	1	-	6	-		-
In-depth interview	3 (4)	2	-	1	-	-	-
Experimental design	3 (4)	-	-	3	-	-	-
Panel data analysis	2 (3)	2	-	-	-	-	-
Content analysis	1 (1)	-	-	1	-	-	-
Observation (pure)	1 (1)	1	-	-	-	-	-
Delphi method	1 (1)	1	-	-	-	-	-
Projective techniques	1 (1)	-	-	1	-	-	-

Note: "Traditional consumers" signifies those purchasing goods and services at retail outlets.
*Studies often use more than one research method; therefore, the total number of studies does not equal 85 (100%)

Table 11: Multi-stage Sampling in Examined Studies

Scope of comparison (geographical/cultural)	Number of examined studies (%)	2 cultures/ countries	3 cultures/ countries	4–10 cultures/ countries	More than 10 cultures/ countries	Not clearly identified
Inter-regional	56 (75)	27	7	10	6	6
Inter-country/inter-cultural within one region	13 (17)	9	1	2	1	-
Comparison between subcultures within one country	6 (8)	4	-	1	-	1
Total number of empirical studies (%)	75 (100)	40 (54)	8 (11)	13 (17)	7(9)	7(9)

Data collection: measurement of endogenous variables

To study variations in the behavior of consumers belonging to divergent cultures, we identified 179 dependent variables in accordance with the research objectives of the study (Table 3). The considerable diversity of dependent variables, along with the large proportion of certain frequently used variables corresponding to constructs pertinent to consumer psychology, consumer decision-making, sociological aspects of consumer behavior, and cultural dimensions, should be noted.

Sampling procedure: determination of geographical sampling units

All studies apply a multi-stage sampling procedure (Table 11). Selecting several countries/cultures as geographical sampling units meant that the researchers largely study variations in consumer behavior on an inter-regional level (75%). When designing cross-cultural research and selecting the number of geographical sampling units, scholars prefer to study the differences between consumers from two countries/cultures (54%).

Table 12 outlines the justifications of geographic selection, sampling units, and corresponding cultures for comparative analysis. Because the examined studies focus on cross-cultural variations in consumer

Table 12: Justification of the choice of region, countries/cultures/ or subcultures (including a breakdown by main geographical region)

Justification of the choice of countries/cultures for cross-cultural research	Number of studies, (%) *	Regional focus, number of studies					
		Europe	Asia/ Asia-Pacific	Latin America	Africa	North America	Middle East
1. Differences in cultural background	39 (52)	14	29	3	1	24	8
2. Similarities in cultural heritage, system of values	3 (4)	-	3	-	-	-	-
3. Geographic location: East vs. West	7 (9)	1	6	1	-	6	-
4. Historical racial background, apartheid	1 (1)	-	-	-	1	-	-
5. Similarities in countries' economic development	2 (3)	1	-	-	-	-	-
6. Differences in countries' economic development (developed vs. developing economies)	2 (3)	1	1	-	-	-	1
7. Countries' improving economic indicators (growing GDP per capita, growing purchasing power parity per capita)	3 (4)	2	3	1	-	2	-
8. Similarities in countries' industrial development	3 (4)	2	1	2	-	2	-
9. Differences in countries' levels of industrial development	1 (1)	1	1	-	-	-	-
10. Industry competition between countries' businesses	1 (1)	1	1	-	-	-	-
11. Similarities in market development	6 (8)	2	5	-	-	2	-
12. Differences in market development	3 (4)	3	1	1	-	1	-
13. Consumer segment growth in both countries	6 (8)	5	3	-	-	3	-
14. Differences in culture of consumption	1 (1)	1	1	-	-	-	-
15. Similarity of stages in product life cycle	1 (1)	-	1	-	-	-	-
16. Trade partnership between countries' businesses	5 (7)	4	2	-	-	1	-
17. Growing exchange of goods and services from one country to another	4 (5)	3	2	-	-	2	1
18. Countries' regulatory differences	3 (4)	3	1	-	-	1	-
19. Replication of cross-cultural/other scientific models in other countries (Western models in Eastern cultures)	2 (3)	1	1	-	-	-	2
20. Availability of Hofstede's cultural dimensions indices	1 (1)	1	-	-	-	-	-
21. Availability of data	1 (1)	1	1	1	1	1	1
22. No justification	11 (15)	5	8	3	2	9	3

*Studies often involve several countries/regions and offer more than one justification for the selected area of concentration; therefore, the total number of studies does not equal 85 (100%)

behavior, 56% are based on the presence of similarities/differences in the cultural background of examined units.

We grouped these justifications into several categories: cultural and historical (66% of studies; lines 1 to 4 in Table 12); economic (16%; lines 5–10); marketing (22%; lines 11–15); and foreign trade (12%; lines 16–17). Only 15% of the examined studies give no justification for the choice of region, country/culture, and/or subculture. It is essential that the selection of geographic sample units for cross-cultural research is justified and scientifically valid as it affects sample comparability and research results.

Table 12 also provides a breakdown of the regional focus of the examined studies, and how those studies are justified. The authors of studies focusing on Asia and North America predominantly selected a geographic sampling unit based on differences in cultural background (29 and 24 studies respectively); their selections were also based on a contrast between Eastern and Western cultures (6 studies in both regions). European researchers concentrate on economic, industry, and market development (20 studies) and international trade (7 studies).

The examined studies of cross-cultural variations in consumer behavior took place in 7 regions and 84 cultures/countries (Table 13). The table balances the official UN classification of geographical regions with historical and religious specificities of cultural development in a number of regions, leading to the creation of distinct categories for the Middle East and Australia and New Zealand.

The majority of studies focus on particular aspects of consumer behavior in dynamically developing Asian/Asia-Pacific countries (59%); 29% and 20% focus on China and South Korea respectively, while 14% concentrate on India and another 14% on Japan.

Researchers also devote their attention to variations in consumer behavior in the cultures/countries of North America (57%) and Europe (48%). The largest proportion of researchers chose the United States (49%), followed by Germany (19%) and France (19%). Studies also focus on specifics of consumer behavior in Australia and New Zealand (21% total), which, despite being part of the Asia-Pacific region, are distinguished by their geographic isolation and their Western-style culture.

In order to go beyond analyzing the number of geographical sampling units and assess their composition, i.e., identify regions and variations in consumer behavior in the studied cultures/countries, we integrated the results reflected in Tables 11 and 12 into the matrix of Whitelock et al. (2007). This matrix (Table 14) shows that the majority of researchers' study variables of consumer behavior in countries/cultures of different regions (73% of the 75 empirical studies), focus mainly on comparing these variables across the countries of North America and Asia/Asia-Pacific (20%) and the countries of North America, Asia/Asia Pacific, and Europe (12%). It is not only the extent of cultural differences that justifies the selection of these regions for consumer behavior research, but also the dynamics of welfare and economic growth. Less than one-third (27%) focus on specifics of consumer behavior in the countries/cultures of one region, with Europe and Asia/Asia-Pacific prevailing (9% each).

Table 13: Geographical Sampling Units in Examined Studies

Region	Number of countries serving as an object of study	Number of studies, (%) *
Europe	33	36 (48)
North America	2	43 (57)
Australia and New Zealand	2	14 (19)
Asia and Asia-Pacific	17	44 (59)
Latin America	14	11 (15)
Middle East	9	15 (20)
Africa	7	6 (8)

*Studies often focus on several regions/countries; therefore, the total number of studies does not equal 85 (100%)

Sampling procedure: determination of markets

We sorted the examined studies into three groups from the market focus standpoint:

1. Market is not identified; studies are carried out using potential consumer samples (37% of examined studies) and the results may be extrapolated to any markets (e.g., Godey et al. 2013; Yeniyurt et al. 2003).
2. Market is broadly defined; both actual and potential consumer samples are used (32%) (Buzova et al. 2016; Akturan et al. 2011; Chen 2009; Cunningham et al. 2006; Bellman et al. 2004) and results can

Table 14: Variety of Geographical Sampling Units in Examined Studies

Scope of analysis of cross-cultural variations in consumer behavior	Europe	North America	Australia and New Zealand	Asia and Asia-Pacific	Latin America	Middle East	Africa	Number of studies
Intra-regional cross-cultural analysis	X							7
				X				7
						X		1
							X	1
		X						3
			X					1
Subtotal								**20 (27%)**
Inter-regional cross-cultural analysis	X	X	X	X	X	X	X	6
	X	X	X	X	X			2
	X	X		X	X			1
	X			X		X		1
	X	X		X				9
	X	X			X			1
		X		X				15
				X		X		2
	X		X					2
			X	X				1
		X				X		3
	X			X				2
	X	X						4
	X				X			1
	X					X		2
		X	X	X				1
	X	X		X		X		1
		X	X					1
Subtotal								**55 (73%)**
Total (empirical studies)								**75 (100%)**

Note: Studies of cross-cultural variations in consumer behavior focusing on Australia and New Zealand are accounted for separately from studies focusing on Asia/Asia-Pacific region due to the Western-style culture prevailing in the former.

be extrapolated to a wide range of markets (e.g., motion pictures (Budeva 2010); luxury markets (Souiden et al. 2011); service sector (Cunningham et al. 2006; Cohen et al. 2009).

3. Market is well defined; actual consumers are used (31%) (Deschepper et al. 2008; Diehl et al. 2007) and results can be applied to a given market (e.g., hybrid car market (Oliver et al. 2010)).

The examined studies with identified markets, both well and broadly defined, can be further broken down by a tangibility criterion into a consumer goods market and a services market, which account for 47% and 27% respectively of the examined studies (Table 15). The food market dominates consumer goods (17%), while high-tech and apparel segments each account for 9% of total studies. We attribute this focus on food markets to differences in cross-cultural taste preferences and the need to develop a differentiated

approach to marketing programs in these markets. Meanwhile, researchers use the high-tech and apparel segments to study opportunities for a standardized marketing approach.

Table 15: Markets Considered to Study Cross-cultural Variations in Consumer Behavior

Examined markets	Number of studies*	Share of studies focusing on certain markets in all examined studies, %
1. Consumer goods market:	40	47
Food markets	14	16
Non-food markets:	26	30
High-tech products	8	9
Apparel	8	9
Other	10	12
2. Services market:	23	27
Hospitality	7	8
Financial services	3	4
Other	13	15
3. Not identified	22	26

* Several categories of goods and services are often examined in one article; therefore, the total number of studies does not equal 85 (100%)

Within the services segment, many researchers devote considerable interest to the tourism and hospitality market (8% of all studies), which is multicultural by nature. This well-defined market segment is particularly interesting to researchers of cross-cultural studies of consumer behavior due to the rapid development of the global tourism industry, high competition, and market players' efforts to improve service quality. One-third of the examined studies focusing on the industry

involve complaint behavior, which serves as a service quality satisfaction indicator (Jahandideh et al. 2014; Ngai et al. 2007).

Sampling procedure: determination and justification of sample units

Establishing the equivalence of sampling methods in cross-cultural research of consumer behavior presents a challenge not only at the stage of selecting geographic sample units but also at the stage of determining sample units (Table 16). Many studies use a student sample (41% of empirical studies). Traditional customers prevail in both student (36%) and non-student samples (44%).

Studies that use student samples largely provide justification (71%) (Table 17). Key arguments for the use of a student sample include representation of a major target segment for the market (26%) and student sample homogeneity due to similar characteristics across markets and regions (26%), which ensures comparability across markets.

However, the validity of a student sample can differ in cross-cultural research from studies conducted in one culture (Flere et al. 2008). Researchers should ensure cross-cultural measurement equivalence and question whether a student sample represents an entire population. Flere et al. (2008) recommend avoiding student samples in cross-cultural comparisons as they reflect cross-cultural differences; on the other hand, these samples should be representative of the country's characteristics. Meanwhile, Ko et al. (2004) argue that the use of students in a study cannot be representative of the whole population, as the young age and cosmopolitan nature of this sample group may downplay cultural variations.

Table 16: Units of Examined Sample

Sample units examined			Number of studies, (%) *	Number of studies containing justification of sample units
Consumers	Students	Traditional customers	27 (36)	17
		Online customers (web-users)	4 (5)	1
	Non-students	Traditional customers	34 (44)	-
		Online customers (web-users)	9 (12)	-
Product (motion pictures)			1 (1)	-
Secondary data			10 (13)	-

Note: Only empirical studies are included in this table
* Studies may use several types of sampling units; therefore, the total number of studies does not equal 85 (100%)

Table 17: Justifications of Student Sample Units

Justification of student sample	Number of studies using student samples (percentage of studies that contain student sample justification)
Major target segment for the market	8 (26)
Homogeneity	8 (26)
Representativeness of the sample	3 (10)
Comparability across cultures	3 (10)
High rate of response to new ideas/products	2 (6)
Accessibility of the sample	1 (3)
Opportunity to raise equivalence of study parameters	1 (3)
Representativeness of student sample of consumer demographic who have extensive experience of using certain goods	1 (3)
No justification given	9 (29)
Total number of studies using student sample	31

Note: Studies often use more than one justification

An analysis of key sample parameters of the examined empirical studies demonstrates their substantial diversity (Table 18). Socio-demographic characteristics, such as nationality (82%), age (75%), gender (66%), education (53%), and monthly income (25%) were most frequently considered. A variety of other sample parameters reflect the additional characteristics of examined markets; their use depends on the stated research objectives.

Sampling procedure: determination of sampling methods and sampling size

We base our analysis of sampling methods on a traditional classification of sampling method techniques (Table 19). From the standpoint of representativeness, a probability sample is desirable in cross-cultural research. It accounts for 27% of the examined empirical studies; the majority of the studies that use probability sampling use random sampling (80%). By using this method, researchers can determine the frequency of studied phenomena and the usability of applied measures (Ember et al. 1997).

Researchers, especially those in developing countries, may use a non-probability sampling method when faced with the high burdens or costs of random sampling, or impeded access to a sampling frame. This method accounts for 34% of examined empirical studies. Among the non-probability sampling methods, convenience sampling is the most popular (61%). The

description of the data collection process in the large number of studies in which the sampling method is not clearly stated (39%) implies that they also use convenience samples. This analysis raises many research questions:

RQ1: How can access to sample frames in less-developed countries be ensured?

RQ2: Is it always justifiable to adhere to similar sampling methods in compared countries/cultures in cross-cultural consumer behavior research?

RQ3: Can the results of studies on a country/culture sample be extrapolated to another country/culture with similar indicators of cultural dimensions?

Scholarly literature details several approaches to determining sample size. Ember et al. (1997) believe that even small samples of 20–30 units are sufficient if the relationship between variables is strong. Teddlie et al. (2007) assert that a sufficient size for purposive and probability samples is 30 and 50 units, respectively. According to Paniotto et al.'s (1982) calculations, a representative sample can be established at 40% of the general population. Regardless, sampling strategy should stem from the hypothesis and research questions that are being addressed (Teddlie et al. 2007). In this review, sample size was determined for the smaller sample of the countries/cultures compared (Table 19).

Table 18: Sample Parameters

Sample parameters	No. of studies, (%) *	Sample parameters	No. of studies (%)
Nationality	62 (82)	Employment status	2 (3)
Age	56 (75)	Student status (student/non-student; year of study)	2 (3)
Gender	49 (65)	Social, socio-economic status	2 (3)
Education	40 (53)	Number of people in household	2 (3)
Monthly income (per year; household income)	19 (25)	Number of pages followed on social networks	1 (1)
Marital status	13 (17)	Language	1 (1)
Users of product/service	14 (19)	Educational major	1 (1)
Occupation	9 (12)	Time spent in the country	1 (1)
Ethnicity	7 (9)	Income compared with others	1 (1)
Place of residence, locality size	6 (8)	Hours spent on each visit to service provider	1 (1)
Frequency of consumption	6 (8)	Type of package tour chosen (lodging)	1 (1)
Family size	4 (5)	Number of children in household	1 (1)
Region	3 (4)	First-time traveler to a country	1 (1)
Experience with the product, service encounter	3 (4)	Purpose of travelling (discretionary)	1 (1)
Race	2 (3)	Professional experience	1 (1)
Monthly expenditures	2 (3)	Position	1 (1)
Reasons for choosing service	2 (3)	Product category involvement	1 (1)
Length of relationship with service provider	2 (3)	Subscription to newsletters (wine-related e-mails)	1 (1)

* Studies often use more than one sample parameter; therefore, the total number of studies does not equal 85 (100%)

Table 19: Sampling Methods and Sampling Size

Sampling method	Number of studies (%)	Number of studies dependents on sample size					
		< 200 Respondents	200–400 Respondents	401–600 Respondents	601–800 Respondents	801–1000 Respondents	
Probability sample:	20 (27)	13	4	1	-	2	
Simple random	16	11	2	1	-	2	
Systematic random	1	-	1		-	-	
Stratified random	1	-	1	-	-	-	
Cluster	1	1	-	-	-	-	
Not specified	1	1	-	-	-	-	
Non-probability:	26 (34)	21	4	1	-	-	-
convenience	16	12	3	1	-	-	-
Judgment	1	1	-	-	-	-	-
Quota	6	5	1	-	-	-	-
Not specified	3	3	-	-	-	-	-
Not identified	29 (39)	12	13	2	2	-	-
Total		75 (100%)					

Note: For comparison the smaller of the compared samples within each study is considered.

Table 20: Tools and Methods of Data Analysis in Examined Studies

Tools and methods of data analysis	Number of studies, (%) *	Tools and methods of data analysis	Number of studies, (%) *
ANOVA	24 (32)	Fisher test (f-test)	5 (7)
Cronbach's alpha	23 (31)	SEM	5 (7)
Confirmatory factor analysis	16 (21)	MANOVA	4 (5)
Chi-Square	14 (19)	Content analysis	4 (5)
t-test	14 (19)	Cluster analysis	3 (4)
Principal component analysis	8 (11)	Chow's test	2 (3)
Exploratory factor analysis	8 (11)	Descriptive analysis	3 (4)
Multiple regression	8 (11)	Discriminant analysis	2 (3)
Factor analysis	8 (11)	MANCOVA	2 (3)
ANCOVA	7 (9)	Conjoint analysis	1 (1)
Regression	6 (8)	Partial Least Squares	1 (1)
Post-hoc tests	6 (8)		

*Studies often use more than one method of data analysis; percentage (%) represents share of empirical studies that use a particular data analysis method.

The reviewed cross-cultural research of consumer behavior studied 134 different countries/cultures in total. In four studies, researchers analyzed the behavior of consumers from the whole regions without specifying any countries/cultures. In two studies a comparative analysis of variations of consumer behavior was carried out on a large sample of countries/cultures (56 and 26 countries) without specification of the studied countries or regions. The article with the closest number to 26 countries had 11 countries/cultures (two times). 37 articles out of 85 articles concerned two cultures/countries and 12 articles with three countries/cultures, six articles concerned four countries/cultures, three articles concerned five countries/cultures, while only one article concerned six and seven countries/cultures each. Furthermore, in another two articles native speakers of different languages, namely Arabic vs Russian, Hebrew vs Amharic, Arabic and Chinese were studied. Just five studies concerned subcultures in the same country. It was an interesting finding that 14 articles did not identify any country/culture in their research.

The examined studies largely rely on relatively small samples: 59% of empirical studies take into consideration samples covering fewer than 200 units. This sample size is largely used in non-probability samples. Some researchers significantly vary sample size across countries/cultures studied while using the same sampling methods. Several studies use considerably unbalanced sample sizes: Estonia, 1831 vs. Sweden, 182 (Nilsson 2007); Germany, 931 vs. the US, 233 and India, 885 vs. Oman, 287 (all in Evanschitzky

et al. 2014). Some researchers use large samples for their studies. Gilbert et al. (2004), in a study measuring customer satisfaction, compare samples from Jamaica (1581), Scotland (585), the US (2399), and Wales (571). This analysis of sample sizes used in cross-cultural research of consumer behavior variations poses another research question: "To what extent does the validity of the results depend on a large sample size in cross-cultural studies?"

Data analysis: selection of methods of data analysis

As evidenced by Table 20, the examined studies use two groups of data analysis methods equally: methods aimed at assessing differences in variables between countries/cultures (ANOVA (*t*-test), ANCOVA, multiple regression) and methods aimed at assessing differences in the structure of variables (exploratory and confirmatory factor analysis). Analysis of variance (ANOVA) is the most frequently used data analysis method (32% of empirical studies), as it reveals the statistical significance of differences at both the intra- and inter-country level.

Cronbach's alpha is also widely used as an indicator of internal consistency of characteristics (31%). Based on this data, we conclude that the researchers use a broad range of advanced data analysis methods and tools and a comparatively small number of descriptive methods of analysis.

Data analysis: missing data methods of analysis

The majority of examined empirical studies (74%) do not specify the way missing data is handled or do not acknowledge the presence of missing values in their research (Table 21). King et al. (2001) point out that missing data may lead to selection bias and loss of important data. Hutcheson (2012) notes that studies rarely acknowledge or properly address missing data, despite its potential to damage data quality and cause errors in measuring variables.

Table 21: Analysis with Missing Data in Empirical Studies

Analysis with missing data	Number of studies, (%)
Deletion methods:	19 (25)
1. Listwise deletion	16 (21)
2. Pairwise deletion	3 (4)
Single imputation methods:	1 (1)
1. Mean (mode) substitution	1 (1)
2. Dummy variable	-
3. Regression imputation	-
Model-based methods	-
No missing data reported	3 (4)
Not specified	52 (70)
Total	75 (100)

Empirical studies utilizing missing data methods (26%) primarily use deletion methods (25%), particularly list wise deletion (21%). We can conclude that handling missing data is one of the weaknesses in studies of cross-cultural variations of consumer behavior. Notably, none of the studies under consideration provides evidence that the missing data patterns are either similar or divergent across the cultural framings.

DISCUSSION AND CONCLUSION

This review of 85 international studies of cross-cultural variations in consumer behavior enables us to systemize conceptual and methodological approaches to research of this subject and determine priorities for future research.

Many of the examined studies rely upon Hofstede's cultural dimension theory (1980) and its rather limited dimensions of culture. In other words, most researchers do not discuss the more recent cultural dynamics that originate from contemporary challenges like the increase in migration, economic crises, and digitalization. New models (e.g., GLOBE), calibrated with high-quality data, are able to capture modern cultural dimensions. Thus, we call for an altered approach to future cross-cultural studies through the incorporation of recent cultural evolutions. The studies' deficits in accounting for established readily cultural dimensions and models as opposed to the mere comparison of variables of consumer behavior on an individual level could also guide promising venues for further research. Future research clearly can differentiate itself through justifying sampling choices (both respondents' qualifications and their cultural framing) and adopting a modern, culture-related framing to underlie research design and evaluate the data at hand on a sophisticated methodological level.

Among the theories used in the examined studies, it is obvious that cultural dimensions have a leading position. Noticeably, cross-cultural studies build upon various sociological and psychological theories. However, our analysis reveals the surprisingly low usage of economic and marketing-related theories. This gap calls for further research. Only two studies use prospect theory and a single study use branding theory, which is open to further extension. When we go into the details of constructs pertinent to consumer psychology in cross-cultural research of variations in consumer behavior we see many marketing-related constructs, such as purchase intention and loyalty, etc.

As already known, online shopping has become a preferred channel of shopping and the pace of online shopping increases day by day (Selvakumar and Raghavan 2017; Izogo and Jayawardhena 2018), making technological advancements and the ease of transactions more consumers prefer using online banking in their daily lives (Chandio et al. 2017). However, increasing numbers have not been reflected on studies to the same extent. Further research might focus on this neglected domain in cross cultural research.

Consumption behaviors have been changing and consumers pay attention to materialism more than previous decades. Symbolic consumption has been one of the major motivations among consumers, especially in the last two decades (Aliyev et al. 2017). Consumption of luxury items has been increasing steadily, and especially after 2000 the number of studies focused on luxury marketing have increased. Leading business and marketing journals such as the Journal of Business Research and Psychology and Marketing, have intensified their emphasis on the topic of luxury consumption. However, among cross-cultural studies the interest in symbolic consumption has not been similar. This detail might be considered a hint for future researchers to follow this line of inquiry.

All studies refer to cross-cultural variations and mention any differences among various cultures. However, we would like to express commonalities in addition to variations. Consumer behaviors are related

to cultural tastes and preferences. Nevertheless, some types of consumer behaviors are based on adoptions. Some product categories, or specifically some products such as smart phones or jeans, are adopted by most cultures regardless of cultural differences.

Ethics and culture and ethnicity as subcultures are among the major elements of cross-cultural variations that influence consumer behavior severely. However, it is interesting to find that the studies investigated in our current study reveal that these elements did not have enough dominance in being preferred as a construct. This lack of interest for constructs such as culture, ethnicity and ethics might be considered an implication for future studies.

The use of non-probability and probability samples is widely discussed in cross-cultural research; researchers recommend using probability samples despite difficulties in obtaining them. Current studies, however, mainly use non-probability sampling techniques. To achieve comparability, it is recommended that researchers justify the use of different sampling methods in cross-cultural research. Due to the criticism of the use of student samples, researchers are well advised to be cautious when using them, and ought to ensure that these samples are highly representative.

As for data analysis methods, researchers appear to use fewer descriptive types of analysis and instead employ a broad range of sophisticated statistical tools and methods. However, study results can be negatively affected by fallacies at the earlier stages of research design, such as dealing with missing values. Although discarding missing data could lead to selection bias and loss of important data, the majority of studies do not account for it.

For theoretical implications we might advise using a multi-method approach more frequently. Among all of the examined studies the percentage of multi-method approaches is quite low in comparison to literary analysis and quantitative approaches. Combining different approaches gives better results, especially in cross-cultural studies. Both surveys and interviews should be employed more frequently. Future researchers should not neglect projective techniques, especially when respondents are not willing to share their own behaviors. Yet our results provide evidence that authors of empirical studies in our corpus skipped testing for missing patterns in the course of their data analysis. In our corpus a solid proportion of empirical studies might have reported biased results because of a failure to fully adequately handle missing values.

It is evident that globalization and migration affect many countries. However, when we examine the studies written on cross-cultural consumer behavior the results show that most of the studies are inter-regionally based, while the researchers fail to pay attention to comparisons between subcultures within one country; or inter-cultural within one region. However, most countries are mixed with other cultures either due to migration or globalization. Future researchers should pay more attention to these neglected comparisons.

Cross-cultural studies' origins lie predominantly in Asia, North America and Europe. Latin America, Africa and Middle East appear to be inferior regions in terms of number of studies. However, contemporary migration is largely from African countries to the Western world. Similar concerns hold true for Middle Eastern countries. Although there are many foreign workers in Middle Eastern countries, cross-cultural studies in these countries are very few. Additionally, an interesting point can be made about trade partnerships. Although the existence of trade partnerships is very crucial for the development of manufacturing and new markets, this same increasing interest is not reflected in the studies. Future researchers should emphasize trade partnerships between countries´ businesses, which is closely related to cross-cultural consumer behavior.

Another finding is the replication of cross-cultural models in other countries. Although very few studies discuss the replications of Western models in Eastern cultures, there are almost no studies about replications of the Eastern models in Western cultures. This aspect would enrich the content of existing cross-cultural studies.

Among the factors of influence on consumer behavior in cross-cultural studies, the leading ones are cultural, social and economic factors. Marketing activities are considered the fourth leading factor in our investigation. This idea can be developed as a managerial implication for practitioners. Marketing activities should be increased, or at least practitioners should improve their knowledge about cultures and combine this insight with their marketing knowledge. Boachie-Mensah et al. (2012) gives various examples from cross-cultural variations and how these insights help practitioners with their marketing activities.

As in any study, there are a few limitations of the current research that should be understood when evaluating the results and implications. First, among the 85 articles, sample sizes varied up to 1000 respondents, but none had a sample size of more than 1000. Secondly, as discussed in our methodology, we had specific search criteria that limited our research to 85 articles. Thirdly, we focused on marketing domain in terms of B2C scope however, B2B was a lack in understanding variations in cross-cultural behavior.

Further studies might replicate the present study on a broader scale and include more studies of the literature. Finally, as discussed in the current research, we did not analyze the effect size of specific cultures. This might be evaluated by conducting a meta-analysis in future and might be used as a reference for future researchers.

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