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Approach to Maximize Marketing Mix Effectiveness“

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Habe nun, ach! [...]

durchaus studiert, mit heißem Bemühen.

Da steh' ich nun ich armer Tor!

und bin so klug als wie zuvor.

These famous lines prelude Goethe's Faust and are well-known among students in German-speaking countries. Although, not all the knowledge gained throughout my extensive studies may seem applicable for my future life at the first glance, the accomplishment of this Diplomarbeit marking the end of my studies helped me to learn a lot about myself, my ability to approach challenges that seem insurmountable at the first view and the joy experienced when mastering these challenges by gaining new knowledge.

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Abstract

Ignoring differences in market environments and consumer preferences generally results in a sub-optimal performance and limited profitability of companies in international markets. Thus, a careful evaluation of variations in consumer tastes and divergences in the general business environment supports the formulation of successful strategies based on an appropriate balance of standardization and adaptation. Thorough market segmentation as well as a sophisticated market selection enable a firm to pursue strategies distinguishing homogeneous subsets of costumers and to target the most promising markets. However, market segmentation and market entry are usually treated separately in literature, even though, a sound market segmentation approach may precede the selection of auspicious markets enabling a firm to enter countries within an attractive cluster consecutively. In general, the variables used in international market segmentation as well as the indices employed in market selection to guide the evaluation of countries have to assess the same market conditions shaping a country's business environment. Apart from the usual simple indices applied in international marketing assessing economic, demographic, technological, social, legal, political, infrastructural and environmental characteristics of a country, composite measures such as the Globalization Index, the Bertelsmann indices or the Corruption Perception Index may provide new insights evaluating complex country traits. Moreover, the integration of cultural frameworks, like the GLOBE project and the Hofstede or Schwartz values, add to the comprehensive evaluation of the market environment in a country.

Today a vast amount of data published by various international organizations is easily accessible via the Internet. Although, the use of secondary data for international market segmentation and market selection faces the general weaknesses regarding data availability, accuracy and comparability, secondary data represents a readily available and particularly cost-effective information tool guiding screening procedures to identify prospective countries. The selection of the 63 indices for the present study is guided by considerations of their relevancy for international marketing decisions and their ability to describe the business environment within a country. The selected variables are assigned to one of the following ten categories on a judgemental basis guided by insights from literature: general, demographic, social, political, legal, economic, infrastructural, technological, environmental and cultural. The consecutive principal component analysis revealed several sub-categories among the legal, economic,

environmental and cultural indices. The resulting 17 groups of variables are then used to assist in the selection of indices for a pre-screening step to eliminate generally unattractive and risky markets from further analysis. Two hypothetical examples, one for non-durable and one for durable goods, illustrate a possible selection of relevant indices based on the rather subjective evaluation of the specific company situation to show and explain the potential use of the proposed approach in international market segmentation and market entry. The cluster solution is derived using a combination of self-organizing maps and Ward's method provided by the software program Viscovery Profiler to overcome the usual weaknesses of hierarchical cluster methods.

A critical evaluation of the cluster solution shows that the country groupings are rather similar in the pre-screening step when using only slightly different data sets whereas the choice of mostly different variables in the actual screening stage yields rather distinct cluster solutions. The low reliability scores for the resulting categories of the principal component analysis are not considered a major drawback in the underlying study as it was not intended to use the component scores for the clustering approach. However, if component scores should be used for a clustering approach the low reliability scores have to be reconsidered. Basically, the interactive selection of indices is the main advantage of the suggested approach as variables may be selected according to the company situation, but at the same time the imprudent choice of indices may lead to sub-optimal country groupings. The introduction of composite indices assessing complex country traits proves to be rather difficult as high correlations with other indices may bias the results. The integration of cultural measures provides a more comprehensive assessment of the country environment, even though available data is generally not up-to-date as cultural characteristics are difficult to quantify. In general, the use of the proposed indices has to be validated with regards to their ability to assess the impact of specific market conditions on product acceptance. The development of a software program integrating and periodically updating the data set may represent an effective tool in guiding the initial steps of companies towards international market expansion and market segmentation.

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Abbreviations

ANN	Artificial Neural Network
BTI	Bertelsmann Transformation Index
CIA	Central Intelligence Agency
CPI	Corruption Perceptions Index
DECDG	Development Data Group
DQAF	Data Quality Assessment Framework
DSBB	Dissemination Standards Bulletin Board
GCI	Global Competitiveness Index
GCN	Global Competitiveness Network
GCR	Global Competitiveness Report
GDF	Global Development Finance
GDI	Gender-related Development Index
GDDS	General Data Dissemination System
GDP	Gross Domestic Product
GNP	Gross National Product
GITR	Global Information Technology Report
HDI	Human Development Index
IBRD	International Bank for Reconstruction and Development
ICT	Information and Telecommunications Technologies
IDA	International Development Association

IMF	International Monetary Fund
IMS	International Market Selection
JANIS	Joint Army Navy Intelligence Studies
KMO	Kaiser-Meyer-Olkin measure of sampling adequacy
KoF	Konjunkturforschungsstelle
n.a.	not available
NIS	National Intelligence Survey
NGO	Non-Governmental Organization
NRI	Networked Readiness Index
OEEC	Organisation for European Economic Co-operation
OECD	Organisation for European Co-operation and Development
PCA	Principal Component Analysis
R&D	Research and Development
ROSCs	Reports on Observance of Standards and Codes
SDDS	Special Data Dissemination Standards
SOM	Self-Organizing Maps
UN(O)	United Nations (Organisation)
UNDP	United Nations Development Programme
UNSD	United Nations Statistical Division
WDI	World Development Indicators
WEF	World Economic Forum
WWF	World Wide Fund for Nature

1. Introduction

The first chapter will provide a short overview of the background and motivations for the discussion of country evaluation based on secondary data in market segmentation and market selection. The key research questions guiding the identification of data and their analysis are pointed out. The general objectives of the study as well as major limitations afflicting the results will be highlighted. A brief description of each chapter will offer a clear outline about the structure of the underlying thesis.

1.1 Background

In his seminal article about the globalization of markets Theodore Levitt states that a general shift towards the homogenization of the world forces companies to adopt a strategy as if the world represented one large market. Therefore, since old markets become saturated and new markets have to be identified companies should ignore superficial regional and national differences and emphasize the development of standardized products to persist global competition and achieve sustainable success (Levitt 1983). However, although a general decline in trade barriers enhances international trade, variations in consumer tastes, cultural idiosyncrasies and differences in the market environment emphasize the need for adaptation of product and strategy to local requirements (Terpstra 1994). The ability to identify consumer groups sharing similar needs as well as the potential to cater for their desires are crucial requirements for international firms. Hence, a structured evaluation favours the careful identification and selection of markets to develop a successful global marketing strategy and realize long-term economic success in international markets.

In practice companies often adopt an intuitive approach to market selection and consequently, miss auspicious market opportunities, although in literature various attempts to develop structured approaches for segmenting international markets and for guiding the evaluation of auspicious markets have been discussed (Nachum 1994a). Various approaches using countries or the consumer as bases for segmentation and for the identification of promising markets have been developed. However, countries still represent the most approachable basis for segmentation and market entry. Information on the economic and legal environment, political stability, infrastructural and technological environment as well as on common cultural characteristics are easily

accessible and provide an ample overview of the general business environment in a country, although, macro-level country data may not sufficiently describe differences with regards to the attitudes towards new products. Nowadays, a vast amount of data on country characteristics is available from various international sources like the World Bank or the International Monetary Fund yielding measurable and accessible segments. Apart from conventional indices like GDP/Capita, hospital beds/1000 and energy production new indices assessing complex issues like corruption, the level of human development with regards to gender equality and the degree of global influences on society emerge and may offer new perspectives for the evaluation of countries.

1.2 Problem Discussion

By and large, a considerable number of studies in international marketing cope with the issues and challenges in evaluating the general environment in foreign markets and identifying auspicious markets. Most recent studies focus on border transcending market segmentation and consecutive market entry, as specific traits and consumer groups are perceived to exist on a global scale, e.g. teenagers. Studies focusing on country-level segmentation and market selection in international markets on the other side are often believed to disregard consumer similarities across borders and consumer differences within a country as they only evaluate inter-country differences based on country characteristics. However, information on country characteristics is generally easily available whereas information on individual consumers may be difficult and costly to get. The diffusion of the Internet led to a vast amount of macro-level data readily available from a majority of international organizations. The development of new indices accounting for complex and multilayered characteristics in countries is on the rise and would enable firms to actually evaluate diverse aspects of the country environment. Although, market segmentation and market entry generally require the same information on the business environment of a country in advance the segmentation as well as the selection of markets are usually discussed separately in literature. However, a previous segmentation of international markets enables a company to identify synergies between countries and to coordinate market entries accordingly targeting countries similar to a firm's home market and already entered markets first. Incorporating the new information accessible on the Internet and established cultural frameworks, e.g. Hofstede values, in an approach to effectively segment international

markets and identify auspicious countries for market entry would provide companies with a cost-effective approach to screen countries for further in-depth research.

1.3 Research Purpose

While several current studies in international marketing, e.g. Hassan et al. (2003), Steenkamp and Ter Hofstede (2002), deal with the border-transcending identification of consumer groups sharing similar characteristics and habits, segmentation on the country level does not receive a lot of attention in recent research. However, the broad use of the Internet and the availability of new, rather complex indices raise several questions concerning the use of country-level secondary data in the field of international market segmentation and market selection.

The vast amount of data provided by on- and offline sources does undoubtedly cater for various data needs. However, market segmentation and market selection require specific information about political risks, infrastructure requirements and legal impediments to evaluate the business environment in a country. Hence, the actual use of country information retrieved from various international data sources, including “traditional” simple indices as well as complex composite indices, in conjunction with established cultural frameworks has to be tested and discussed with regards to their adequacy for international market evaluation.

Various developments in the field of research and international cooperation have resulted in new rather complex indices that merge numerous influences to assess a general direction or attitude influencing the business environment in a country, e.g. Bertelsmann Transformation Index, Failed States Index or Global Competitiveness Index. Moreover, the integration of cultural frameworks developed in psychology, e.g. Hofstede or Schwartz values, may provide additional insights in cultural traits of a country compared to approaches only based on economic, social or political characteristics neglecting the impact of culture on consumer behaviour. Now, the question is if the use of new sources of information combined with rather established cultural frameworks actually yield significantly different country groupings to overcome the predominantly geographic orientation of previous country cluster approaches revealing inherent similarities among rather distant countries.

1.4 Research Objectives

The present Diplomarbeit should provide a sound theoretical background about country-level segmentation and market entry in international markets. It is, however, beyond the scope of the study to provide an exhaustive discussion of all scientific papers in the field of segmentation and market entry. The data sources described represent a selection of the most well-known international organizations offering a large amount of data on country characteristics. Generally, the indices discussed are selected based on their relevance for the assessment of the general business environment in a country. Industry- and product-specific indices are not included as the scope of the underlying study is the provision of a generally adaptive framework demonstrating the applicability of secondary data available on the Internet in international market evaluation. However, there are various other organizations and data sources on the international and national level that may provide precious information on macro-level country characteristics as well as on product- and industry-specific characteristics.

1.5 Scope and Limitations

The integration of either simple or composite indices from various online sources offering information on the different forces shaping the business environment and cultural frameworks may result in a new approach to building country clusters. Basically, the selection of the included indices are guided by considerations of the respective relevancy to international marketing also opting for rather unconventional indices for international market selection and market entry, e.g. Corruption Perception Index. The interactive selection of indices from a given data set enables a company to choose variables relevant for the present situation and the perspectives of the firm. The interactive selection of indices may be considered the main advantages of the suggested approach but on the other side a considerable portion of subjectivity in the selection of variables may result in sub-optimal country groupings.

In general, the present study suffers from the general limitations of secondary data concerning the comparability, accuracy and the availability of data. Especially missing data was a chief issue in the analysis requiring cautious evaluations of cluster outcomes.

1.6 Target Audience

The present study aims at providing a framework for market evaluation and segmentation for practitioners in international marketing. Principally, the suggested approach should provide marketing managers and decision makers in international companies with a structured guide to assess and select auspicious markets using readily available, cost-efficient secondary data for market evaluation. Furthermore, the selection and discussion of complex indices may offer interesting insights for academics and researchers in the field of international marketing segmentation and market selection on the integration of innovative indices. The use of new variables for international market segmentation and market selection may reveal very different country groupings compared to “traditional” country-level segmentation approaches again increasing the interest in and use of country-level characteristics for market evaluation. In particular, the integration and discussion of macro-level country data as an interim screening step to identify auspicious markets for primary market research may regain importance in the international marketing literature. Finally, the underlying study may offer valuable information about international organizations and their efforts in data collection as well as provide new insights about similarities and differences among countries for students generally interested in the topic at hand.

1.7 Research Outline

The present Diplomarbeit is structured into nine sections offering a sound discussion of the theoretical background, a thorough evaluation of the data set used for further analysis and a guiding framework for the use of the selected data in country grouping approaches.

Chapter two, following the introduction, will address the issue of standardization versus adaptation and will highlight advantages and challenges linked to both strategies in international marketing. The concept of market segmentation based on country characteristics as well as considerations regarding market selection and market expansion are discussed. Variables already used in the literature to evaluate countries are summarized to give an impression about the different influences shaping a country’s business environment. A brief introduction of present cultural country cluster frameworks will moreover, underline the importance of cultural traits in international marketing. A critical evaluation of the use of secondary data in market segmentation

and market entry decisions will highlight the advantages and disadvantages of secondary data in international marketing research. Finally, a brief summary will merge the different parts of Chapter two providing a short conclusion about theoretical findings.

Chapter three will introduce the various international data sources providing the indices selected for the purpose of this study. A brief evaluation of the comparability and accuracy of data collection and data analysis procedures will be given for each data source.

Chapter four thoroughly evaluates the indices used for the successive analysis and provides information about the calculation of the indices and the issues actually measured. Furthermore, a brief introduction about the categorization of the indices at hand will conclude Chapter four.

Chapter five discusses the selection of relevant countries for the analysis in brief explaining the exclusion of several countries due to scarce data availability.

Chapter six highlights the statistical methods employed for the analysis providing insights about the joint use of cluster analysis and self-organizing maps to form country clusters. In addition the software program Viscovery Profiler and its main use and advantages will be introduced.

Chapter seven will discuss the problems inherent in the data set and will provide first results of the principal component analysis forming sub-categories of indices within the 10 categories of indices introduced in Chapter 4 to guide the selection of indices for country grouping approaches.

Chapter eight will show the practical use of the proposed framework using two hypothetical firms with relatively similar market conditions comparing the cluster outcomes when using a slightly different set of variables or when using a very different set of variables to form country clusters.

Last but not least, **Chapter nine** evaluates the performance of the selected data set and the results of the practical application in Chapter eight with regards to the theoretical findings of Chapter two. Eventually, major limitations regarding the selection of the

data set and the actual clustering approach will be identified and directions for future research will be highlighted.

2. Literature Review

This chapter will provide the theoretical background for the later suggested country grouping approach. Several relevant studies in the literature will be presented and discussed. However, the aim of this chapter was not to provide an exhaustive essay about the appropriate literature but to give an overview about theoretical fundamentals. Figure 2.1 illustrates the structure of the literature discussion.

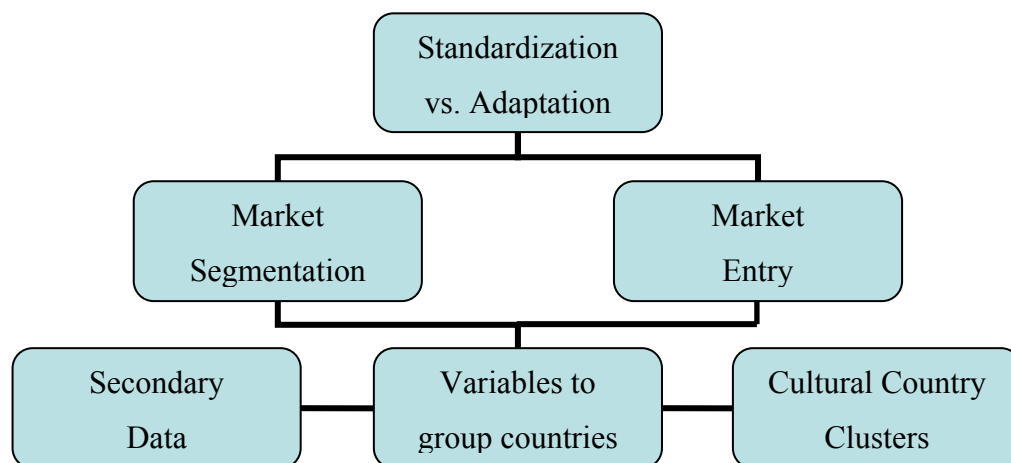


Figure 2.1 Sequence of Literature Review

First of all, the need for standardization versus adaptation and related implications will be considered. The segmentation of global markets as well as the identification and selection of markets are subsequently discussed as they generally precede the decision where to standardize and where to adapt marketing strategy. A summary about segmentation variables and related segmentation dimensions will highlight the selection of potential indices and will provide some considerations with regards to dealing with large data sets and forming country clusters. The relevance of cultural variables in international marketing will be examined separately offering a brief description of several existing cultural frameworks with implications in international marketing. Finally, the advantages and challenges related to the use of secondary data will be outlined.

2.1 Standardization versus Adaptation

In his provocative article Levitt (1983) states that as current markets become saturated firms have to find new markets for their products. The general shift toward a

homogenization of the world market induced by technology requires an emphasis on standardized products keeping production costs low and pushing quality and reliability up to persist global competition. Improvements in transportation and communication as well as a harmonization of incomes may lead to a convergence of different cultures and consumer preferences. A decline in trade barriers and, hence, increasing international competition favour centralized production of standardized products and the standardization of marketing strategies to realize cost savings (Daniels 1987).

However, do cultural diversity, national standards and tastes as well as diverging business institutions and habits actually vanish as a result of a increasingly closer and, hence, global world?

Since the very beginning the standardization debate is characterized by two quite opposing views. Generally, the concept of total standardization focuses on a supposed trend towards a homogenization of markets and consumer behaviour capitalizing on the significant benefits of standardization. In contrast, total adaptation emphasizes the need for individual approaches due to persistent differences between nations concerning the competitive and regulatory environment (Zou et al. 1997). This point of view in favour of standardization thus, argues that corporations should adopt a uniform global approach to coordinate marketing activities around the world realizing long-term planning and marketing benefits. As basic human needs are similar around the world only minor adjustments to strikingly different local circumstances are necessary. The contrary standpoint of adaptation emphasizes the difference between countries and cultures. Although, basic human needs may be similar across cultures they may be satisfied in different ways. Therefore, the worldwide standardization would reduce the diversity of products forcing consumers to choose from a small number of alternatives decreasing their level of satisfaction. Standardization, in general, may indeed be impeded by certain local characteristics, but still the standardization of several procedures and technical aspects, like product design, may result in economies of scale and cost-effective marketing activities (Sethi and Holton 1974).

Fundamentally, a worldwide standardized marketing approach may be defined as “the same products marketed in the same way everywhere” (Huszagh et al. 1986, p.32) or “using a common product, price, distribution, and promotion program on a worldwide basis” (Jain 1989, p.70). The marketing of standardized products and services on a worldwide basis taking identical strategies would result in lower costs and higher

margins for corporations (Jain 1989). Apart from cost savings standardization supports the communication of a brand's global image and eases the simultaneous introduction of new products in numerous markets (Kale and Sudharshan 1987). Yet, the concept of a truly global world regarding products and marketing strategies like Levitt (1983) projected appears rather illusory. In general, the suitability of a global marketing approach or a strategy of adaptation actually always depends on the product and may be more feasible for some product categories than for others due to certain product characteristics. Industrial products for example may be more appropriate for standardization than consumer products as the latter tend to be rather context sensitive (Day et al. 1988; Jain 1989; Samiee and Roth 1992). The demand for industrial inputs is usually driven by similar needs. Standardized buying processes are far more common in industrial markets than in consumer markets and are generally determined by the level of economic development of a country (Day et al. 1988). In consumer markets high-tech products normally attract specialized buyers like computer users, musicians or athletes that are familiar with technological aspects of the product, who share a technical language and a common understanding. High-tech products do not only comprise product categories like heavy machinery, computer hardware, photography equipment but also consumer electronics like laptops and video equipment as well as advanced sport equipment, e.g. skiing equipment, and financial services. High-touch products, on the other side, are rather image-oriented than product-features oriented. Generally, high-touch products like fragrances, fashion, jewellery as well as health food and fitness clothing are merely sold based on image and do not need highly specialized information on the product (Domzal and Unger 1987). These sensory products offer a feeling of pleasure, and are judged on the basis of the personal emotional perception and not imperatively on their functionality (Holbrook and Hirschman 1982), hence, they tend to be more appropriate for a standardized marketing approach. Additionally, if a product is perceived as having no close substitute and as being indispensable, an universal approach may probably be more successful than for other products (Huszagh et al. 1986). Zou and Cavusgil (2002) note that the performance of a firm using a global marketing strategy depends on the ability of its managers to individuate common needs among consumers worldwide to keep the adaptation of core product features and the promotional mix at the necessary minimum. Managers should carefully evaluate the attractiveness of key markets and focus marketing activities on auspicious markets considered indispensable to actually exploit global efficiency and synergies.

Jain (1989) principally identifies four key determinants of the standardization vs. adaptation decision: a *product's nature*, the *target market*, aiming at the (economic) development of regions and countries under review, the *market position*, considering the maturity of the market shaped by cultural and lifestyle differences, and the *market environment* concerning various conditions within national borders. The market environment is subdivided into physical, legal, political and marketing infrastructure. Physical conditions comprise social (concerning living conditions), climatic, geographical and other characteristics. Laws and other regulation as well as governmental interventions and political considerations shape the legal and political environment in a country. Marketing infrastructure is determined by all institutions and functions, e.g. retail network, wholesalers, transportation, warehousing, media, that are essential to establish business operations in a market. However, generally these characteristics are rather diverse in most countries and products, therefore, have to undergo more or less significant adaptations to suit economic, geographical and climatic, social, legal, political, infrastructural as well as cultural and lifestyle requirements in different countries or, to a certain degree, homogeneous groups of countries.

Although, cost savings realized by standardization enable companies to gain competitive price savings actual savings may be outweighed by lost sales due to standardized offerings lacking local adaptations and decreasing effectiveness of country level operations (Daniels 1987). Therefore, variations in consumer tastes, cultural idiosyncrasies as well as governmental regulations and diverging per capita incomes indicate the need for product and strategy adaptations (Terpstra 1994). Ignoring differences in market environments and consumer preferences adapting a globally standardized approach may lead to sub-optimization and, as a result, to limited profitability. Basically, the decision of standardization versus adaptation is mostly based on long-term economic considerations including financial performance and competitive advantage. Therefore, standardization is only considered to be expedient as long as it has a positive influence on financial performance (Daniels 1987; Jain 1989; Samiee and Roth 1992).

“Strategy in international markets begins with the market selection decision” (Hünerberg et al. 1997 p. 72). Based on a thorough identification and evaluation consumer groups sharing similar needs may be identified and the potential to satisfy

these customer requirements determined. Hence, crucial considerations determining the decision of standardization versus adaptation across countries are market segmentation and consequently, market selection. An elaborate market segmentation and a proper market selection decisively influence marketing decisions enabling a firm to pursue a strategy distinguishing homogeneous subsets of customers and to tackle particular market niches. The differentiation regarding the marketing plan between different homogeneous subsets of markets enables firms to anticipate and react to shifts in individual segments more effectively and efficiently maximizing potential profits from selected markets (Samiee and Roth 1992). Hence, structured market segmentation favours the careful identification and selection of (new) markets as well as the determination of the marketing mix integrating a reasonable balance between standardization and adaptation. Standardization across homogeneous markets realizes prospective cost saving and profits, whereas adaptation on the other hand side enables a firm to serve very different requirements in heterogeneous markets. An approach contingent on internal organizational and external market constraints may integrate various degrees of standardization or adaptation depending on the internal and conditions (Zou et al. 1997).

2.2 Market Segmentation

The markets a company operates in, consisting of either several countries or of particular types of consumers in different countries, are determined by divergent demand. The heterogeneity on the demand side may be influenced by different traditions and customs, variety-seeking, or simply by essential differences in consumer needs (Sethi 1971). Unfortunately, international companies frequently follow an intuitive approach to segmentation without consciously selecting segmentation variables (Nachum 1994a). Nevertheless, successful market segmentation and brand positioning are imperative for companies operating in the global marketplace. Segmentation plays a crucial role as dissimilarities and similarities regarding consumer needs, preferences and behaviour shape the formulation of marketing strategies and supports companies to cope successfully with consumer heterogeneity across borders (Bijmolt et al. 2004). According to Porter (1986) the identification of sound market segments is the key determinant of global marketing strategy. Hence, market segmentation may be seen as the basis for marketing strategy development. Standardized marketing mixes across a group of countries may lead to the realization of cost savings while the limited number

of product variants enables the achievement of longer production runs and the exploitation of economies of scale (Kale and Sudharshan 1987). In general, the development of a successful strategy for global marketing is generally strongly influenced by a firm's skills to segment its markets forming homogeneous groups of countries or particular consumers across borders that can be targeted with uniform marketing strategies (Sethi 1971; Smith 1956). For the international marketer it is crucial to determine whether national differences prevail over other consumer characteristics explaining product and retail preferences that may be similar across borders (Hassan and Katsanis 1994). Existent market differences have to be carefully assessed and the marketing strategy has to be adjusted accordingly to identify distinguishable market segments in order to serve a heterogeneous market (Sethi 1971; Smith 1956).

2.2.1 A definition of segmentation

Aggregating consumers that share similar needs and show similar responses to marketing stimuli into groups allows companies to develop more effective marketing strategies. The targeting of specific consumer needs sets a firm apart from competitors and leads to a satisfied consumer base in the long run (Dibb 1995). Thus, market segmentation in domestic as well as in international markets is the logical response to face and successfully target the heterogeneity of most markets. Segmentation divides the market for a certain product or service into segments of customers that vary with regards to their reaction to marketing strategies (Wind and Douglas 1972). Segmentation is supported by developments on the demand side and may characterize "a rational and more precise adjustment of product and marketing effort to consumer requirements" (Smith 1956, p.5). According to the definition of Smith (1956) market segmentation is a short-term phenomenon leading to the redefinition of market segments as individual markets consequently addressed by diverging marketing strategies. McDaniel (1979) regards segmentation as a process of splitting a heterogeneous market into rather homogeneous and identifiable segments in order to design a marketing mix addressing the needs of consumers in segments, which are attractive for the firm. Dibb and Wensley (2002) accentuate the importance of market segmentation to homogenize market heterogeneity leading to improved organizational performance by addressing specific segments of the market.

Summing up, market segmentation always views a heterogeneous market, shaped by divergent demand, as several smaller markets with homogeneous demand. Rather small or niche markets may be identified and successfully integrated in the market portfolio of a firm. Therefore, the question in international marketing is not whether to segment but rather *when* to segment (profits exceed costs of segmentation) and *how* to segment (which bases for segmentation should be used) (Sethi 1971).

With regards to the segmentation of international markets two basic segmentation approaches can be distinguished. In international segmentation each market is approached separately based on national borders. The emerging segments are identified within a country in order to realize potential profits by adapting the marketing strategy to local requirements and do not represent border-transcending solutions, although very similar segments may be found in other countries. The global segmentation approach attempts to identify similarities across markets regardless of national borders. The resulting segments are border-transcending and group together consumers with similar lifestyle and consumption habits. Companies shape their product, price and promotion strategies to target a global segment with uniform strategies across borders (Aurifeille et al. 2002). Hassan et al. (2003) present three different approaches for global market segmentation. The hybrid approach particularly suggested in their paper about the new bases for global market segmentation finds segments existent in many or most countries using a hybrid balance of macro-and micro-segmentation variables. One of the other two methods of global segmentation adopts an approach rather similar to international segmentation. Segments are formed on the country level focusing on behavioural and lifestyle segmentation factors, different segments within different countries are then targeted with the same product. Last but not least, the approach considered in depth in the course of this thesis due to its mere advantages regarding the availability of secondary data and the formation of stable accessible segments as well as the consideration of differences among countries is based on clusters of countries that share similar characteristics and demand similar products. As different countries have different safety and industry standards, diverse consumer responses to product design and varying consumer preferences concerning the use of products the consideration of country characteristics may assist the recognition of local conditions and the necessary adaptation of the marketing mix to these market conditions.

2.2.2 Segmentation based on countries

Frequently, the world market is segmented based on countries not on consumers. Wind and Cardozo (1974) emphasize the importance of segmentation identifying the idea of country clusters that share similar characteristics and are reachable through a particular single strategy. In international segmentation on the country-level information is aggregated across all consumers within a country and data about the country itself (e.g. regime, legal system) is integrated to form country groupings based on their commonalities regarding the segmentation bases at hand (Steenkamp and Ter Hofstede 2002). Principally, the “appropriateness and relevancy of any particular base for segmentation will depend on the specific market situation and firm constraints” (Wind and Douglas 1972, p. 20). The appropriateness of segmentation bases is evaluated according to four major criteria: measurability, accessibility, profitability and differential marketing response. When using country characteristics as bases of segmentation measurability and accessibility do not pose any problems as countries represent well-defined entities separated from each other due to geographic and political circumstances. The profitability of segments constituted by countries depends on the situation and has to be evaluated separately regarding the product, market and firm. The relationship between country characteristics and differential marketing response has to be established beforehand; otherwise a segmentation based on country-level data may not yield appropriate, profitable results (Wind and Douglas 1972).

The focus on countries as the basis of segmentation generally ignores the within country heterogeneity among consumers and may lead to deceptive national stereotyping as the results of country clusters often do not provide the relevant information for managerial decisions. Furthermore, segmentation on the country level ignores intra-country differences as well as similarities in consumer needs and tastes across national borders. Although, country groupings often share similarities regarding economic or cultural characteristics other factors affecting consumer behaviour, e.g. legal regulations, conditions of product use, may differ significantly. Segmentation variables aggregated on the country-level are rarely theoretically motivated or relevant for managerial decision-making (Kale and Sudharshan 1987; Steenkamp and Ter Hofstede 2002; Walters 1997). However, secondary data to support the segmentation process is generally easily available and accessible for countries and trade regulations as well as political issues are mostly dealt with at the country level. Country level data is not only

more accessible than behavioural and psychographic information on individuals but may also be increasingly comparable, especially if the data is gathered by international institutions (Walters 1997). Although global segmentation considers the likelihood of cross-border segments it may be applied only in the case of one or a few products and countries. Furthermore, global consumer segments may exist but consumption habits can differ among countries regarding diverse product groups (Nakip 1999). Macro-level data on various dimensions of countries is generally rather available than behavioural or psychographic information on individuals. Thus, countries still represent the most easily identifiable entities to target. As secondary data on the country-level is easy to identify country-level segmentation yields rather sizeable and stable segments. Still, the formulation of marketing strategies and the unique reaction of consumers to marketing efforts are questionable in the case of country groupings (Steenkamp and Ter Hofstede 2002).

Although, the weaknesses of segmentation approaches based solely on country-level data are obvious, such approaches are very effective as an interim step in segmentation approaches. The use of general observable segmentation variables on the country-level results in rather homogeneous country groupings regarding socio-economic and cultural characteristics. Peterson and Malhotra (2000) mention the feasibility of measures assessing the quality of life to eliminate countries deemed infeasible in the preliminary screening step. Quality of life within a country is assessed gathering information measuring either the benefits of living or the cost of living within a country regarding the economic development, demographics, freedom regarding political opinions, the allocation/misallocation of resources, infrastructure and the value of recreation, culture and entertainment. The implementation of such a “screening step” eliminates groups of countries which are generally unattractive for market entry for a certain country due to unacceptable general characteristics (e.g. low wealth, high political risk) or discrepancies regarding company objectives. The resulting country clusters are rather homogeneous regarding cultural and economic characteristics and may also lead to an enhanced stability of successively identified micro-segments within the country groupings. The general insights in the markets gained during the country screening may be successfully employed in the consecutive micro-segmentation (Steenkamp and Ter Hofstede 2002). Basically, a two-step approach in international marketing, e.g. Hünérberg et al. (1997), Kale and Sudharshan (1987), Kreutzer (1991), Wind and Douglas (1972), supports the segmentation process and reduces costs associated with

segmentation as only countries that fulfil certain essential prerequisites established beforehand are investigated into detail (for examples see Appendix A). The implementation of a screening step based on macroeconomic data selected in accordance with the challenge at hand reduces the set of countries under investigation identifying those countries offering similar parameters. Consequently, the subsequent micro-segmentation may focus on customer characterization and the identification of (cross-national) segments sharing needs and tastes within the country groups and offering comparable business environments (Kale and Sudharshan 1987; Wind and Douglas 1972).

2.2.3 Issues in segmenting the international market

The rational selection of marketing strategies integrating the minimization of total costs, production costs as well as marketing costs, is indispensable to achieve a maximum degree of functional effectiveness (Smith 1956). Market segmentation is only successful as long as the additional profits gained from a strategy based on segmentation exceed the costs caused by adapting the marketing mix to different segments or by focusing efforts on a specific segment. Therefore, apparent benefits of segmentation need to be evaluated particularly with regard to the costs incurred to achieve them. Two criteria for a cost-effective segmentation approach can be easily determined. First of all, the segmentation dimensions selected have to correspond to feasible consumer characteristics. Secondly, an interpretable relationship between the commercial benefits realized by adopting a particular segmentation approach and the costs caused by its implementation has to exist. Hence, a firm should systematically assess the costs and potential benefits of segmenting its international market and of introducing appropriate marketing strategies (Dibb and Wensley 2002). However, the effect of segmentation on actual firm performance is still hard to pin down. The most appreciated aspect of segmentation is still the ability to provide a better understanding for consumer needs, although, organizational measures like market share and profitability may lead to a better evaluation of the performance of segmentation than assessing the effect of segmentation on consumer understanding (Dibb et al. 2002).

In international markets, predominantly due to the mere size and the given diversity of markets, segmentation may prevent generalization and over-simplification of demand conditions in unfamiliar foreign environments by highlighting differences in cultural, economic and political characteristics. The explicit assessment of the importance of

differences and similarities between foreign countries and their impact on consumer behaviour facilitates the identification of accessible segments within an otherwise heterogeneous market (Wind and Douglas 1972). Segmentation supports the recognition of inherent patterns of similarities and provides guidelines for the integration of strategic and operational decisions. A firm's skills to segment the global market is very important to cope with heterogeneous challenges in international marketing (Walters 1997). Targeting one or several of the identified segments especially offer advantages regarding organizational features. Apart from price discrimination segments with differing demand elasticities may be targeted with different intensity and varying combinations of other marketing variables, e.g. distribution and advertising (Wind and Douglas 1972). Hence, the use of thorough market segmentation tends to build a strong market position enhancing consumer satisfaction and satisfying needs more adequately. The failure to accept the reality of diverse market segments and actively reacting to heterogeneous characteristics within the market by adapting marketing strategies, however, may result in the loss of market position (Smith 1956).

2.3 Market Selection and Market Expansion

Market selection and successive market entry are key strategic decisions influencing a firm's presence in international markets and determining a firm's success in the long run. International market selection decisively influences a firm's move towards internationalization. From the 1960 to the mid-1980 the topic of international market selection (IMS) attracted a lot of attention in international marketing research. However, generalizeable IMS models are difficult to develop and often suggested frameworks are too complex to actually apply them in practice (Papadopoulos et al. 2002).

By any means, every firm planning to internationalize its operations should carefully answer the question which countries to choose for market entry. The selection of the right markets to enter is the foundation on which a company's internationalization strategy will depend. Therefore, one of the most important steps to a successful market entry in foreign markets is the careful selection and evaluation of potentially attractive markets (Kumar et al. 1994). Papadopoulos and Denis (1988) summarize three major issues regarding the importance of identifying the "right" markets for expansion. First of all, entering the right markets can be a key factor of a firm's success or failure in foreign markets. Secondly, the decision about target markets precede the development

and, hence, the formulation of marketing programs. Thirdly, the nature and geographic location of the markets chosen determines the coordination of foreign operations. Last but not least according to Ayal and Zif (1979) the establishment of foreign operations in adequate markets can be an important determinant in a firm's global competitive positioning strategy.

The countries for market entry have to be selected deliberately as all companies have only a limited marketing budget that has to be allocated among target markets. Yet, research in the field of market entry and market expansion focuses prevalently on market identification with regards to market expansion strategies and modes of marketing entry. Often two opposing strategies for market expansion are evaluated. Market Penetration implies a fast penetration into a large number of countries from the very beginning. Market Concentration promotes a concentration of resources in a few markets and a gradual expansion to new markets. Beside the identification of potential markets the selection of market expansion strategy and the level of marketing efforts aimed at the new market has to be considered when deciding on an appropriate market expansion policy (Ayal and Zif 1979). Koch (2001a) notes that, although market selection and market entry mode are often treated as separate decisions, they might be seen as parts of one decision. The identification of appropriate countries and modes of market entry used for successful expansion are surely closely interlinked as modes of market entry depend on the business environment in a country. However, as the purpose of this study is the introduction of a clustering approach using secondary data to identify potential markets and country segments the subsequent discussions will focus exclusively on the issues determining the selection of countries representing attractive markets on the basis of indicators assessing the overall environment for businesses in these countries without explicitly taking into account possible expansion strategies and modes of market entry. In general, the identification of attractive country clusters commonly determines the market entry and expansion decisions of a firm by targeting one country from a cluster deemed promising and enter the other countries within the cluster successively after a successful market entry in the country targeted first (Peterson and Malhotra 2000). Competitive posture and the territorial allocation of the main competitive market may additionally play a role in market choice and mode of market entry (Ayal and Zif 1978).

However, regardless of the market expansion strategies and modes of market entry the appropriate markets have to be identified in advance. For that reason the quintessence of the international market selection (IMS) process is the development of effective methods for selecting foreign target markets (Papadopoulos and Denis 1988).

2.3.1 Issues in market selection

To assess the market opportunity in a foreign market firms have to take into account their short- and long term objectives, their market expansion strategy and possible resource constraints. Firms already operating in foreign markets furthermore have to take into consideration their operations in current markets and their influence on the selection of new markets as well as the present product-market portfolio (Kumar et al. 1994). Basically, factors influencing market selection can be classified into three large categories: internal, external and a mixed internal/external category (Koch 2001b).

Internal factors depend on individual experiences, attitudes and values of stakeholders within a company. Corporate culture and existent management systems as well as international experience of the individual managers and the companies guide the selection of criteria for a comprehensive country assessment. The strategic orientation and the internal competitiveness regarding necessary capabilities and skills for the internationalisation process of a company determine the reaction to changes in the business environment and successively the formulation of strategic objectives guiding the internationalisation process (Koch 2001a; Koch 2001b). Frequently, the limited experience of management in export research is, among others, a reason for the lack of structured approaches to international market selection (Papadopoulos and Denis 1988). Thus, the market selection heavily depends on such internal constraints based on the availability of financial, human and production resources. Especially, manufacturing firms mention that resource constraints are significantly relevant for the decision to establish market operations in foreign markets. For firms in the service sector a “focus on local market” is often stated as a main reason for not expanding operations abroad due to difficulties of adapting service standards to local requirements without violating premises of corporate culture (Westhead et al. 2001). However, successful market entry also depends on external constraints determined by government authorities and infrastructure in foreign markets (Ayal and Zif 1979). The strategic significance of as well as the competitive situation in a foreign market are of considerable importance for the IMS decision. The assessment of market potential and impending market risks plays

a major role in the choice of foreign markets (Koch 2001b). Economic characteristics similar to those in a firm's home country seem to be a crucial factor in successful market entries as it eases the knowledge transfer. Similarities in consumer demand and business institutions are expected (Mitra and Golder 2002). Several factors influencing the market selection regard internal as well as external issues. The preference for similar markets, for example, is not only guided by external considerations like the characteristics of a country but also by internal capabilities and accessible resources of the company. Firms seem to prefer culturally similar markets to keep uncertainty low as similarity is expected to facilitate the transfer of technology, managerial resources and products as well as services. With increasing experience in international markets firms tend to choose increasingly unfamiliar countries for market entry (Davidson 1983; Erramilli 1991). Mitra and Golder (2002) developed the construct of "near-market knowledge" suggesting that cultural similarity regarding a foreign market and a firm's domestic market are not significantly influencing the timing of market entry decisions. In fact the similarity between foreign markets and markets in which a firm has already established subsidiaries plays a major role in market entry decisions. Hence, these finding might explain the selection of countries exhibiting unfamiliar business environments with ongoing internationalization as not only a firm's home country serves as a reference market. Anyway, similarities regarding legal, political, economic, environmental, social and cultural characteristics as well as barriers should be carefully assessed and used to identify countries for market entry.

The topic of foreign market selection can be either approached systematically or unsystematically. Systematic approaches are characterized by a structured and formalized decision-making process based on a clear problem definition and a careful evaluation of relevant choice criteria. Unsystematic approaches suggest "rules of thumbs" for foreign market selection (Andersen and Buvik 2002; Papadopoulos and Denis 1988). Systematic approaches allow a rather structured estimation of market potential using statistical analysis of economic, political and cultural characteristics while unsystematic methods approach the issue of international market selection from a subjective point of view.

Although systematic approaches facilitate an "a priori" evaluation of countries selecting appropriate indicators, small and medium enterprises (SME) as well as large multinational companies frequently approach the issue of internationalization rather

unsystematically. In an impressive number of cases the decision to “go international” and establish operations in a foreign market is a reaction to unsolicited orders from these countries signalling a demand for a firm’s products. Firms making a proactive move tend to select markets based on unsystematic criteria like geographic or cultural distance. Nonetheless, these relatively intuitive approaches certainly limit the number of countries as predominantly immediate neighbours are taken into consideration and subjectivity decisively influences the selection process (Andersen and Buvik 2002; Papadopoulos and Denis 1988; Papadopoulos et al. 2002; Westhead et al. 2001).

Hence, a efficient method for the selection of international markets should provide a structured framework to evaluate the appropriateness of basic environmental conditions, integrate strategic considerations and render adaptation with regards to product-specific requirements possible. To design a method suitable for international firms as well as for firms debuting in the international market, simplicity of use and cost effectiveness are key issues (Papadopoulos and Denis 1988).

2.3.2 Systematic approaches to IMS

Generally, marketing literature distinguishes two different approaches to the systematic selection of international markets. The first one involves the collection and analysis of qualitative data about a limited number of countries (qualitative approach). The second approach facilitates the consideration of many countries based on the analysis of secondary statistical data (quantitative approach).

Qualitative approaches, generally, require the compilation of objectives and constraints to create a list of countries which are then evaluated with regards to their appropriateness for the firm’s internationalization process. Some of the qualitative approaches describe the decision-making process guiding the selection of target markets; others focus on the discussion of suitability and sources of qualitative information for the IMS process (Papadopoulos and Denis 1988). Qualitative approaches enable the integration of situation-specific information, but they also facilitate biased outcomes due to subjective selection of information and decision-making. The integration of various specific aspects in the selection process limits the number of countries explicitly investigated.

Quantitative approaches on the other hand side focus on the adoption of a screening procedure based on secondary data to identify which countries should be investigated in depth (Douglas et al. 1982). They reduce subjectivity and facilitate the consideration of markets beyond neighbour countries. Although, quantitative approaches permit the cost-effective investigation of a large number of countries at once they suffer from the general shortcomings of secondary data regarding the availability and comparability across countries. Furthermore, the variables used to identify auspicious markets are mainly based on macro-level general country indicators and lack product specificity as well as situation-specific variables (Kumar et al. 1994; Papadopoulos and Denis 1988). However, approaches using secondary data still represent the most transparent and cost-effective frameworks to screen a large number of countries based on a rather standardized process. Methods employing secondary data capturing characteristics of the macro-environment may be followed by micro-segmentation using the findings of the preceding investigation and introducing situation-specific variables on industries and products. Such a procedure reduces the cost of micro-segmentation and may as well refine the results as the number of countries can be limited according to market knowledge gained in a prior approach assessing adequate countries based on the macro-environment.

Basically, statistical analyses using secondary data enable the investigation of a large number of countries. Generally, there are two different types of quantitative decision making frameworks, estimation models and grouping models (Papadopoulos et al. 2002).

Market estimation methods differentiate markets on the basis of their potential demand levels to identify foreign markets according to preference. Indicators mainly account for wealth size, growth, competition within and access to a foreign market. However, methods in this category are quite diverse. Probably, the most promising market estimation method for international market selection is the shift-share approach developed by (Green and Allaway 1985). Based on the assessment of relative changes in industry-specific imports over a pre-determined time period growing or declining markets are identified. The main advantage of the method is the consideration of a country's imports and their relative growth. The use of only two decision criteria is the methods eases the application but on the other hand side this approach neglects various other aspects of the business environment in a country (Papadopoulos and Denis 1988).

Papadopoulos et al. (2002) adopted the core logic of the Green and Allaway (1985) shift-share model, capturing market potential and import barriers, to provide a reasonably sound, flexible and easy-to-use multiple-variable approach emphasizing industry-specific demand for the IMS problem. Import Barriers have largely been identified as the most important export determinant, but have not been explicitly accounted for in former market entry models, due to the difficulty in quantifying non-tariff barriers. Although, Papadopoulos et al. (2002) developed a framework employing theoretical sound measures, tested and validated in real market conditions, the evaluation is limited to 17 OECD countries as target markets, characterized by similar market environments and a rather large data availability. The assessment and quantification of the non-tariff barriers requires the calculation of a composite index for each of the target countries, which results in a rather time-consuming procedure. Obstacles rendering market entry and the establishment of business operations difficult may also be considered by referring to indices quantifying bureaucratic procedures issued by international organizations like the World Bank Doing Business Project¹.

By and large market estimation methods attempt to rank countries according to preference based on either the total potential of markets or focused on the import potential of a foreign market, but the approaches do not account for similarities in market structure, political and economical similarities and culture. Although, these characteristics may not sufficiently approach the issue of market potential, similarities with a firm's established markets may ease market entry and business operations.

Market grouping methods on the other hand side assess the similarities among countries. Principally, they cluster countries with regards to their commonalities on the basis of agreed criteria depending on the matter at hand. Often macro-indicators on social, economic and political issues like in international market segmentation are used to evaluate countries on their overall status. Frequently, grouping approaches are criticised for disregarding the actual market potential for a firm's products and services in foreign countries (Papadopoulos and Denis 1988). However, market grouping methods account for similar conditions concerning economic, political, cultural and other facts. The similarity of operating environments may positively influence market entry and the establishment of subsidiaries as it enables the management to transfer

¹ See Chapter 3.4 for detailed discussion

know-how and familiar solutions in order to deal with arising issues recently encountered in already entered markets. Moreover, market grouping approaches are relatively independent from coding procedures to rank countries according to the characteristics at hand. The individual importance of certain country characteristics for the company can be communicated by assigning different weights to the variables in the process of grouping countries. Still, the number of criteria selected for market grouping approaches are often too numerous and lead to biased outcomes due to high correlations among variables (Nachum 1994a). Hence, a method clustering countries based on similarities regarding predetermined grouping variables, which are selected carefully with regards to adequacy and interdependencies among them, may offer a rather accessible approach in a decisive number of cases, especially for companies with limited or no experience in selecting export markets.

2.3.3 Evaluation and identification of countries

In general, companies currently not operating in a certain country have to rely on secondary data to evaluate the market attractiveness in advance and to prevent costly business failures in new markets. In this respect macro-level general country indicators are oftentimes readily available whereas industry-/product- specific data is scarce. Generally, secondary data supports the selection of countries, the initial estimation of demand potential and the ongoing assessment of environmental change. The adoption of a screening procedure based on secondary data identifies the countries which are worth to be investigated in depth (Douglas et al. 1982). Basically, existent literature describes a consistent approach to the evaluation of foreign markets involving three steps: (1) screening stage, (2) identification (in-depth screening) stage and (3) selection stage. Johansson (1997) introduces a pre-screening step identifying relevant countries for the screening stage based on population statistics and GNP (growth) statistics. In the screening stage itself macro-indicators, e.g. political stability, legal environment, socio-cultural factors and geographic distance, are used to eliminate countries that do not comply with the firm's objectives. In the identification stage industry-specific information like market factors and competition analysis as well as a firm's objectives, expansion strategies and resource constraints support the assessment of the industry attractiveness for the relevant countries selected in the screening step. Eventually, the most promising markets are identified in the selection stage accounting for a firm's product portfolio and profitability (Koch 2001a; Kumar et al. 1994). However, a

comprehensive discussion of the identification stage and the selection stage, whereby markets within the selected countries are identified using predominantly qualitative information, is beyond the scope of this study.

Throughout the screening stage company objectives and industry characteristics determine the selection of secondary data. Preliminary screening criteria, e.g. sale or import restrictions on products or level of GNP, may be introduced to exclude certain countries from further consideration. Managerial considerations and objectives regarding international operations further influence the importance of relevant indicators and their eventual integration in the subjective evaluation of countries. The specific indicators for the evaluation of marketing opportunities should assess the following criteria: (1) market size and growth potential (e.g. GNP, population growth), (2) political, legal and financial risks associated with operating in a market (e.g. inflation rate, % of expropriations), (3) costs of operations in a country (e.g. labour costs, transportation network), (4) access and availability of distribution and media channels and (5) competition (Douglas et al. 1982). A vast amount of secondary data is available to satisfactorily tackle the first three criteria. The last two criteria regarding the access to distribution and media channels as well as competition are only partly covered by indicators and will need a closer assessment using qualitative information from secondary and primary sources.

2.4 Variables used to group countries

In domestic marketing customer characteristics like age, sex, social class, personality and lifestyle, brand loyalty and product usage play a major role in recognizing auspicious markets (Wind and Douglas 1972). International markets are commonly segmented using single-dimension methods, geographic location and income per capita, or multi-dimension approaches relying on large statistical sets to assess actual demand (Nachum and Ayal 1994b). However, Nachum and Ayal (1994b) tested the statistical performance of various variables generally included in international segmentation concluding that the degree of homogeneity within emerging clusters is significantly improved if more than a single variable, e.g. income per capita, is used. In international markets various environmental conditions like political and legal characteristics, cultural and social idiosyncrasies or economic and technological development determine the business environment. Therefore, several country characteristics are used

to screen and classify countries to identify attractive country groups that may be investigated in detail using customer characteristics instead of country characteristics in a further step. Countries with political or legal conditions that constitute a major barrier to market entry may be eliminated and only potentially attractive country groups may be investigated into detail. The research effort is reduced not only because the countries, unsuitable for market entry, are eliminated in a first step using relatively cheap secondary data, but also because buying patterns in the remaining countries are not investigated individually but within the country groups (Wind and Douglas 1972).

Commonly, general characteristics, like geographic or economic facts, affecting the general direction of demand account for country characteristics. Situation-specific characteristics may be additionally used to account for special features and requirements of a product or service and only relate to this particular product or purchase situation, e.g. special taxes, degree of competition a.s.o. Although, situation-specific characteristics may often be crucial in determining a feasible target segment, they could hardly be included in a general segmentation approach designed for various industries. Summing up, the identification of appropriate segmentation variables depends on the market conditions, the industry a firm operates in, the product's characteristics and the company resources and constraints (Wind and Douglas 1972).

2.4.1 Geographic proximity of markets in segmentation

In practice geographic location and proximity of markets are often used in international marketing as variables to divide the global market in smaller country groups. Geographically close countries are assumed to share political, socioeconomic and cultural characteristics as well as similar distribution and marketing networks (Sethi 1971). Apart from geographical proximity Sethi and Holton (1974) mention the level of development and bloc characteristics, like language, currency or economic agreements, as common criteria for grouping countries. As political and economic alliances among countries in regional trading blocs emerge, assimilations in surrounding conditions and a convergence in the behaviour of consumers and suppliers may favour the formulation of a marketing strategy targeting similar needs across national borders within trading blocs (Yavas et al. 1992). These politically and economically motivated aggregations of countries in trading blocs, like the European Union, the NAFTA or the ASEAN countries, however, even though further facilitating groupings of geographically close countries for export and marketing purposes, may pose significant problems with

regards to marketing activities. Generally, the elimination of entry barriers and amenities regarding tariffs among member countries enhance intra-bloc trade and support the expansion of export operations. However, groupings of countries according to geographical proximity or political systems are intricate as they do not capture important characteristics within the countries. Trading blocs commence the coordination of trade regulations and economic issues, but complex cultural differences determining lifestyle and consumption patterns in member countries do not disappear easily. Geographic proximity and comparable political systems as well as similar economic developments simplify the logistics of managing transportation and communication across borders, but cultural factors still play a key role in shaping the marketing environment. The European Union, for example, has already reached a very high level of economic and political integration, however it still represents the most complex and heterogeneous trading bloc regarding cultural characteristics of member countries (Malhotra et al. 1998). Therefore, the grouping of geographically close countries, often also closely related due to trade agreements, does not form a homogeneous market that can be addressed with a uniform marketing strategy, but requires further segmentation taking not only political and economic determinants but also cultural characteristics into account.

2.4.2 Established categories of indices

In literature indicators used to assess market potential are often grouped into the following broad categories. *Economic characteristics*, e.g. GNP and income distribution, estimate wealth and the distribution of wealth in a country. *Demographic characteristics* assess the size and the structure of a market capturing for example the population size, degree of urbanization and age structure. *Geographic characteristics* gauge the size and topological characteristics of a country as well as its climate and environmental conditions. Demographic as well as geographic characteristics give hints about additional product requirements and distribution. *Technological factors* measure the degree of technological advancement using education levels and technological skills. *Social and cultural factors* account for age, ethnic and linguistic groups as well as for values and lifestyle patterns common in a country. Social and attitudinal information capture age and language structures as well as traditional habits and traits influencing desired product characteristics and determine branding as well as marketing mix decisions. The assessment of *legal regulations* helps to determine product features

and import conditions required by national law (Cooke 1972; Douglas et al. 1982; Craig and Douglas 2002). *Political factors*, like the political regime and the grade of government intervention business enterprises may also represent an appropriate base for segmentation and may provide information about the market size and permitted marketing efforts (Wind and Douglas 1972). Kreutzer (1991) mentions the importance of *infrastructural development* not only with regards to topological and technological factors but also regarding the availability of relevant media for marketing communication whereas Samli (1991) denotes the importance of industrial infrastructure, especially regarding retailing structure. Although indicators regarding environmental issues were not included in earlier studies Nakip (1999) acknowledges the importance of an *environmental dimension* in current social marketing research.

Frequently, indices depicting the economic development are used to group countries for convenience reasons as data on economic issues are more readily available. In fact, the level of economic development reflects the degree of industrialization in a country and is an important indication of the market size for certain products, e.g. luxury goods. In industrial markets, the level of economic development particularly is a major determinant in grouping countries according to similarities regarding their industrial needs and in assessing the market size for industrial goods within country groups. However, the level of economic development may differ notably within one country leading to a significant problem of determining the actual level of economic development of a certain country (Day et al. 1988). Furthermore, the estimation of market size, actually defined as local production plus imports minus exports, commonly poses problems due to difficulties linked to the restricted availability of relevant numbers. Therefore, gross economic indicators like GNP, GNP per capita, average growth rate of GNP, per capita income or imports are integrated as proxies for the market size in various country grouping approaches (Kumar et al. 1994). However, Weber (1974) notes in his work about worldwide segmentation strategies based on GNP per capita that economic indicators should not be used exclusively as they do not lead to optimal country groupings and encourage managerial stereotyping. Due to skewed income distributions potentially attractive niche markets in seemingly unattractive country markets are not detected and marketing opportunities are not exploited (Wind and Douglas 1972; Kale and Sudharshan 1987). Generally, income per capita, income distribution, and measures of currency stability represent superior variables compared to GNP assessing economic development and explaining variations in import demand

(Nachum 1994a). In industrial markets income and expenditure data as well as information about production and transportation within a country may provide valuable additional insights into national economies for industrial marketers (Day et al. 1988). Information on trade, estimates of energy production and consumption as well as measures of the currency situation may assist in the evaluation of market size and economic development for industrial products (Nachum 1994a). Huszagh et al. (1986) on the other hand side mention that indicators like life expectancy, weekly working hours and employment may represent appropriate variables to estimate the economic well-being within a county as economic measures like GNP per capita do not reflect the actual well-being of a population due to unequally distributed income. Countries with the same level of economic development are likely to have comparable education levels and standards of living. Several social proxies like number of university students, illiteracy rate and government expenditure on education are often used to assess the level of economic development via the level of education. However, these variables are highly correlated and may affect the outcome of the country grouping process. Carr Jr. (1978) suggests to identify market size using the presence or absence of certain types of institutions or equipment, e.g. radios/TVs/telephones per capita, doctors per 1000 inhabitants, paved streets, railroads and others, especially for areas where data like GNP and population size can not be easily assessed or numbers are believed to be manipulated.

Apart from estimating the economic development of a country and seizing the influence of social and cultural traits on consumer preferences factors assessing the political situation in a country evaluate the political stability as well as the general political attitude towards the establishment of foreign business operations within the country in question. The evaluation of the legal environment may reveal legal restrictions and special prerequisites affecting the import of a company's products as well as identifying legal requirements regarding the registration of innovations and the protection of trademarks. Infrastructural characteristics and the technological development of a country have to be identified to assess the opportunities for distribution and the compatibility of technological standards. The media environment sheds light on the availability of different media and the applicability of marketing and media concepts to foreign countries (Kreutzer 1991).

In general, social indicators are often interlinked with economic development. Divergent educational levels, literacy rates standards of living and degree of urbanization may influence the economic development in a country and consequently, the demand for certain products (Wind and Douglas 1972; Kale and Sudharshan 1987). The proliferation of certain languages in a society, although effectively unfeasible to quantify, may be pertinent for the marketing of goods (Kreutzer 1991). Cultural characteristics shed light on the role of women in society, the receptivity towards change, psychological rejection of products from certain countries, the attitude regarding authority as well as on dietary laws and other traditions due to religious believes. Cultural features, thus, have an undeniable impact on products and marketing strategies (Wind and Douglas 1972). Even though, cultural characteristics are one of the determinants of differences in demand and buying behaviour they are difficult to use for the purpose of country groupings as cultural traits are generally difficult to quantify. Common proxies used to account for cultural differences, like level of education may capture general buying behaviour but fail to evaluate the specific demand for a particular product (Nachum 1994a).

2.4.3 Critical evaluation of macro-level country characteristics

Although, macro-level variables on the ten dimensions discussed in the previous section are frequently used to derive market segments they may not describe differences regarding the attitude towards new products and the diffusion of products. Macroeconomic variables tend to oversimplify the complex, heterogeneous nature of different products and services characteristically dealt with in international marketing. Therefore, segmentation frameworks based on such general macro-level data do not take into account that some consumer characteristics may not be determined by national membership, but are truly global. Hence, these approaches may not yield accurate strategic decisions (Agarwal 2003; Helsen et al. 1993).

Studies proposing other segmentation variables are on the rise, e.g. Frear et al. (1995), Helsen et al. (1993), Luqmani et al. (1994). Frear et al. (1995) for example approaches the issue of country segmentation using information on the purchasing patterns and international sourcing strategy of companies to cluster countries. The country segments may reveal a similar level of technological development offering opportunities to introduce products with a comparable level of technological sophistication within one country segment. (Luqmani et al. 1994) on the other hand side attempt to build country

clusters based on the level of convenience demanded in products and services by consumers as diverse cultures may vary in their time-saving and comfort orientation. The identification of country segments based on convenience orientation should enable the firm to cater for the desired level of convenience offering elaborated as well as scaled-down variants of products to different country segments. However, the collection of relevant data is linked to increased and costly data gathering procedures. In the case of the convenience-orientation segmentation countries are grouped on the basis of judgemental classification, thus there is no statistical evaluation of the soundness of the resulting country groupings. Several other studies, e.g. Helsen et al. (1993), Lee (1990), attempt to assess the comparability of segments based on macro-level data and those based on new segmentation variables. The comparison of country segments emerging from new segmentation approaches and macro-level segmentation may yield additional insights in the reliability of different segmentation frameworks.

In their study about country segmentation Helsen et al. (1993) actually investigate the ability of macro-level country segmentation to predict product diffusion comparing macro-level country segments with a new approach to country segmentation using multinational diffusion patterns. Thus, countries clustered in the same segments using selected macroeconomic variables should show a similar diffusion process. Based on the analyses proposed by Sethi (1971) and Gatignon et al. (1989) the authors selected the macro-level country characteristics and derived six dimensions factor analyzing the data set. *Aggregate production* depicts characteristics of mobility, like number of air passengers, air cargo and cars per capita as well as production and consumption of energy resources. *Health* groups together life expectancy, physicians per capita and political stability. *Trade* accounts for imports and exports as a percentage of GNP. The factor *Lifestyle* stands for the standard of living in a country and includes GDP per capita, phones per capita as well as electricity consumption per capita. *Cosmopolitanism* contains information about foreign visitors, tourist expenditures and receipts per capita. The last factor contains miscellaneous items that do not load highly on one of the factors. Data on the annual unit sales for three consumer durables (color TVs, VCRs and CD players) are used to assess the diffusion of product innovations. However, the segments derived by applying diffusion-based segmentation showed little correspondence with the resulting segments of the macro-level segmentation. Furthermore, Helsen et al. (1993) could not identify a systematic relationship between country characteristics and the diffusion of product innovation.

Lee (1990) on the other hand side establishes a link between macro-level country characteristics and national innovativeness. National innovativeness is identified as “the degree to which a country adopts an innovation relatively earlier than the rest of the other countries” (Lee 1990, p. 40). Countries are defined as the unit of adoption of innovation and the ownership of new products, in this case black and white and colour TV sets, per 1000 people accounts for the degree of innovativeness. The statistical analysis reveals that wealthier, more industrialized, cosmopolitan countries with high literacy rates, a less authoritarian structure of society and a positive attitude towards science and education (measured in scientists and engineers per capita) tend to be earlier adopter countries of product innovations. Moreover, GNP per capita, literacy rate, the proportion of manufacturing and services sectors as a percentage of GNP and the number of scientists and engineers yield significant results in determining national innovativeness.

Nakip (1999) introduces a country-level segmentation approach for industrial markets based on usage rate of industrial products and examines the discrimination ability of pre-specified macro-level indices among the resulting clusters. Product usage is calculated from secondary data and defined as the “per capita consumption of specific products in a certain country” (Nakip 1999, p. 178). The macro-level indicators are classified into three groups: *social variables*, e.g. population density, infant mortality rate, urban population, literacy rate, *economical variables*, e.g. consumer price index, GDP per capita, motor vehicles, export/import per capita; and *environmental variables*, e.g. forested area, irrigated land, energy consumption per capita. The analysis reveals that several of the selected macro-level indicators are actually discriminating between clusters formed based on product usage rate. Export per capita shows the most significant ability to discriminate between the country groups. The other variables varying according to the country segments are CO₂ emission, population density, energy consumption, inflation rate and economically active female population. Apart from CO₂ emission (environmental) and population density (social) all discriminating variables were assigned to the economical dimension as industrial, not consumer-oriented, products are used to group countries.

Hence, studies relating to the predictability of country groupings based on macro-level segmentation yield quite different results. Whereas the study of Helsen et al. (1993) does not show any relationship between the diffusion of product innovations and macro-

level country characteristics, Lee (1990) identifies a relationship between selected country characteristics and the speed of adoption of product innovations in a country. Generally, both studies suffer the same limitations. The diffusion of product innovation of a past period is compared to country characteristics of today. Furthermore, the integration of other marketing mix variables could yield different result as the current studies do only account for innovative product features. As the diffusion process of only a limited number of products is analyzed general conclusions for other types of products are not feasible.

The study by Nakip (1999) shows that especially in industrial market segmentation particular macro-level indicators may actually indicate cluster membership regarding the usage rate of industrial products. Thus, they may as well be suitable to specify variations in demand.

2.4.4 Forming country clusters based on macro-level data

In domestic marketing cluster analysis is often used to identify homogeneous groups of consumers in a heterogeneous market. The issue of finding homogeneous groups of countries or consumers is far more complex in international marketing as various additional social, political and economic factors, seen as exogenous variables in domestic marketing, have to enter the analysis resulting in rather large sets of multivariable, multi-country data (Sethi 1971). Dividing the large data set into various meaningful groups of variables using statistical analyses, e.g. principal components analysis, cluster analysis, may ease the use of the data set and establish a structured approach to the selection of variables for segmentation (Day et al. 1988; Sethi 1971; Sethi and Holton 1974). However, often a number of highly correlated variables are used without adding additional explanatory value to the analysis, although a smaller set of variables may yield the same results without loss of explained variance, hence simplifying and cutting the expenses for data collection (Nachum 1994a). The cluster solution for countries will depend on the criteria selected to determine the similarity of markets. The complexity of the cluster analysis is linked to the number of dimensions introduced in the grouping procedure. Frequently, markets which seem to be quite different may have more similarities regarding several dimensions than one could have guessed at first glance while showing glaring differences on other more obvious criteria (Sethi and Holton 1974). Although, the use of several dimensions may result in biased results due to high correlations among the selected criteria “the multidimensional nature

of countries precludes classification based on a unidimensional scale such as levels of economic development” (Sethi and Holton 1974, p.230). Fundamentally, the selection of variables for cluster analysis is always an issue of subjectivity as there are no universally agreed on measures to assess market potential. Hence, the critical decisions regarding the variables may in turn affect the relative homogeneity of countries within the resulting clusters (Day et al. 1988).

2.5 Cultural Country Clusters – an overview

In his seminal work about values and culture Geert Hofstede defines culture as “collective programming of the mind” (Hofstede 2001, p.1). According to this definition culture manifests itself not exclusively in the values held, but determines also rather superficial characteristics of a culture concerning symbols, heroes and rituals (Hofstede 2001). The meaning we assign to symbols and rituals is influenced by the values conveyed by family, school as well as work environment and in general society (Hofstede 1983). Culture shapes personality patterns of and relationships between members in a society transferring beliefs, values, knowledge and traditions (Herbig and Kramer 1994). In general, “culture gives the people of any society a sense of common identity [...], a common sharing within the same group but distinct from that of another culture” (Herbig and Kramer 1994, p.63).

There are several attempts to cluster countries into rather homogeneous cultural groupings to assess similarities and differences as well as to identify reasons for cultural differences and ways to deal with pre-eminent cultural characteristics (Hodgetts and Luthans 2000). The majority of studies aims at explaining the impact of culture on economic activities of individuals, organizations and countries (Sivakumar and Nakata 2001). Research on cultural country groupings, therefore, frequently focuses on values and goals related to work role, employee status and job satisfaction as well as leadership types. The evaluation of cross-cultural interdependencies and differences enhances the consideration of variables generally not included in leadership theories and considerations about corporate culture like the importance of religion, language ethnic background, history and political systems (Dorfman 1996). Assessing work and leadership values of foreign cultures generally provides valuable information about organizational issues for companies entering new markets to implement reasonable interaction between the organization and the host country and to anticipate potential

culturally contingent problems (Brodbeck et al. 2000; Ronen and Shenkar 1985). Although, cultural stereotyping may lead to misdirected assumptions and conclusions it can be quite useful to delineate the social system individuals are a part of. In several studies, e.g. Ronen and Shenkar (1985), Sirota and Greenwood (1971), the existence of country clusters sharing common attributes and characteristics was confirmed, although countries within the clusters are often geographically distant (Herbig and Kramer 1994). In general, the clustering of societies examining cultural similarities is in general useful for multinational corporations as market entry in culturally similar markets may seem less risky and more profitable for the management (Gupta et al. 2002).

Ronen and Shenkar (1985) identify four types of variables used to group countries in their integrative study on cultural country clusters: *work goal importance*, *need deficiency*, *fulfilment and job satisfaction*, *managerial and organizational variables* and *work role and interpersonal orientation*. Nine cultural clusters are derived by merging eight empirical studies assessing work values and beliefs in various areas of the world: Anglo-American, Nordic, Germanic, Latin-European, Japan, Far Eastern, Arabic, Near Eastern and Independents (India, Brazil, Israel, Pakistan). Brodbeck et al. (2000) investigate concepts of leaderships with regards to different cultural settings in 22 European countries selected from the GLOBE database (House et al. 2004) using the country clusters of Ronen and Shenkar (1985) as a criterion measure. Statistical analysis underpins the variation of leadership prototypes as a function of cultural characteristics identified in the country clusters by Ronen and Shenkar (1985).

Whereas the studies above ask respondents about their work goals and satisfaction GLOBE (Global Leadership and Organizational Behavior Effectiveness) is a worldwide project investigating the relationship between societal culture, organizational culture and organizational leadership. Respondents are asked to evaluate institutional practices as they are, assessing real conditions, and how they should actually be, reflecting values. The practices of organizations and leader attributes and behaviors generally enacted and accepted within one culture and rather distinctive from attributes accepted in other cultures are evaluated on nine cultural dimensions strongly influenced by Hofstede's work on national culture (House et al. 2002; House et al. 2004).

Hofstede's framework based on an employee attitude survey program of IBM is probably the most well-known attempt to cluster countries according to culturally inherent values. Information about the satisfaction with the current job situation,

individual perceptions of the work situation and personal beliefs and desires regarding the job situation was gathered and analysed. Countries are then classified according to the four dimensions identified, power distance, uncertainty avoidance, individualism/collectivism and masculinity/femininity (Hofstede 2001). Schwartz (1994) identifies three bipolar dimensions, conservatism versus autonomy, hierarchy versus egalitarianism and mastery versus harmony, rather similar to some of Hofstede's dimensions, e.g. conservatism/autonomy and individualism/collectivism. The Schwartz framework is based on a survey among schoolteachers and university students, including also representatives of the general adult population and adolescents, asking respondents to rate the individual importance of motivational values regarding human requirements. Steenkamp (2001) merged the two comprehensive and rigorous frameworks suggested by Hofstede (2001) and Schwartz (1994) to analyze potential communalities and derives four comprehensive dimensions of national culture: autonomy versus collectivism, egalitarianism versus hierarchy, mastery versus nurturance and uncertainty avoidance. Autonomy versus collectivism comprises the Hofstede values of conservatism/individualism as well as power distance and the Schwartz value of autonomy emphasizing rising acceptance of unequal power distribution as group-orientation increases. The second dimension of egalitarianism versus hierarchy merges the Schwartz values of egalitarianism, hierarchy and harmony and thus, is dealing with the coordination of people's interests based on hierarchical systems or voluntary commitments. Mastery (Schwartz) and Masculinity/Femininity (Hofstede) load highly on the third dimension mastery versus nurturance, accounting for the tendency to control the social environment and nature. The fourth dimension captures uncertainty avoidance. Harmony also loads highly on this dimension as maintaining harmony is a way to cope with uncertainty. Based on these dimensions countries are classified in seven "culture areas": Anglo, Western Europe, Nordic, Latin, Far East, Japan, and an area that was labelled "Others" including Brazil, Taiwan, Thailand and Turkey (Steenkamp 2001).

Trompenaars (1996) conducted a study over a ten year period surveying managers in 28 countries to assess cultural preferences of leaders and employees. The data analysis revealed five relationship orientations depicting the manner people interact and deal with each other. Trompenaar's dimensions of relationship orientation are quite similar to Hofstede's cultural dimensions. Universalism versus particularism deals with the standardization or adaptation of ideas and practices to current circumstances.

Individualism versus Communitarism refers to people perceiving themselves as an individual or as part of a group. The dimension, neutral versus emotional, accounts for the handling and expression of emotions. Specific versus diffuse societies differ according to the differentiation between an individual's private and public space. Achievement versus ascription cultures have diverse perceptions of the accomplishment of a certain status, one favouring a status based on performance the other preferring a certain status due to ascription (Trompenaars 1996). In addition, Trompenaars evaluated the manner in which people deal with time, either sequential, doing only one activity at a time, or synchronous, dealing with several activities at the same time. Another issue in the framework developed by Trompenaars is the attitude towards the environment and people's attempt to either control or just await outcomes. The country classifications derived based on the five relationship orientation dimensions yields country clusters very similar to the Ronen and Shenkar country groupings (Hodgetts and Luthans 2000; Trompenaars 1996).

Inglehart (1997) proposed a rather different approach to group countries into culturally homogeneous clusters. He analyzed the data from the World Values Survey identifying key values and beliefs to evaluate cultural change and the persistence of cultural traditions. Two major waves of change monitored in the World Values Survey suggest that economic development has a significant influence on cultural values and traditions. *Modernization* accounts for the first shift from religious authority to secular state authority with the progress of industrialization. Religious norms communicating an ascribed status and a sense of sharing are replaced by values of achievement and accumulation. Traditional authority based on religious is substituted with secular-rational authorities. In *Postmodernization* there is again a shift of authority away from both religion and state to the individual and its needs and desires. A polarization between survival values and self-expression values characterizes the change from industrial to postindustrial society. Coherent cultural patterns may be a result of shared history and traditions, but there also seem to be a considerable influence of cultural factors on economic characteristics, especially economic growth. A classification of 65 societies evaluated according to their ratings on the two dimensions Traditional/Secular-Rational and Survival/Self-Expression yields nine country groups: English-speaking, Latin America, Africa, South Asia, Catholic Europe, Protestant Europe, Orthodox, Ex-Communist and Confucian. Obviously, the clusters reveal a significant influence of religious values and traditions. Although, economic development brings about

significant changes society still maintains cultural traits historically shaped by religious beliefs (Inglehart 1997; Inglehart and Baker 2000).

Generally, there is no doubt about the influence of cultural environment on employees' work attitudes and behavior (Ronen and Shenkar 1985). However, apart from the role of culture in employee values, leadership types and intercultural business relations culture has an undeniable impact on every aspect of marketing (Jain 1989). The expansion to foreign markets and the selection of auspicious markets may be strongly influenced by cultural values, beliefs and traditions. Herbig and Kramer (1994), for example, designed a marketing strategy guiding international product roll-out and market expansion based on the cultural clusters of Ronen and Shenkar (1985). The cultural affiliation of the company has to be identified as a first step to determine the countries offering similar cultural environments. The identified clusters represent culturally similar groups of countries where cultural differences between countries within one cluster are smaller than differences between countries from separate clusters. Hence, marketing programs and advertising strategies can not be implemented without marginal changes from one country to another, although they are assigned to the same cluster. An assessment of the opportunities in the individual countries within the selected country cluster based on cultural as well as non-cultural issues guide the selection of countries and the order of market entry. The company may move further and launch the product in countries assigned to the cluster closest to the primary cluster after successfully entering the countries of its cultural cluster.

The most influential approach in international marketing to assess cultural differences and similarities is still the framework provided by Hofstede (2001). Several studies use the four Hofstede dimensions for the development of cultural country groupings, e.g. House et al. (2004), Steenkamp (2001), or the design of sound multi-country samples, e.g. Sivakumar and Nakata (2001). However, Lindridge and Dibb (2003) show in their study about the justification of culture as a variable for market segmentation, even though only based on a national sample of different ethnic groups in Great Britain, that cultural values and beliefs may not manifest themselves in diverging consumer behaviour. Therefore, culture alone may not represent a suitable variable for market segmentation. Although, cultural indices are often used exclusively; they could be linked with macroeconomic and microeconomic as well as organizational indices to provide a complete picture about the business and marketing environment within a

country. In their study about marketing operations of subsidiaries operating on a decentralised basis Diamantopoulos and Schlegelmilch (1987) for example connect Hofstede's four dimensions individualism/collectivism, power distance, uncertainty avoidance and masculinity and femininity with GNP, microeconomic information about the market and company characteristics to group the subsidiaries according to the similarities of their market operations.

2.6 Secondary data in marketing research

Companies operating in international markets increasingly face the need for complex and relevant information to compete globally. Accurate, up-to-date information is indispensable for the formulation of competitive strategies to anticipate and react to the rapid changes in the global market. Firms reach out to target geographically and culturally unfamiliar and distant markets to realize growth opportunities. However, market research in foreign markets at a different stage of development has to cope with various challenges regarding data collection, accuracy and evaluation (Craig and Douglas 2001). Thus, secondary data represents an important source of information in international marketing. Background information on a particular industry or country is readily available to assist the evaluation of business opportunities in relatively unfamiliar countries or product markets at an early stage of development, e.g. emerging markets. On- and off- web sources can be promptly consulted to gain a general overview about the business environment within a country and to determine which countries and areas of concerns should be investigated into detail using primary research. Secondary data may represent a precious tool guiding screening procedures to select countries deemed promising for further investigation saving the international marketer time and costs (Craig and Douglas 2002; Houston 2004). Generally, research based on secondary data can be very useful for environmental scanning and forecasting as well as in evaluating market potential, investment climate, potential risks and contingent costs of operating in diverse markets. Computer technology, especially the Internet, makes it possible to assess and analyze worldwide data cost-effectively. The availability of pre-screened data from international organizations like the World Bank or the UN enhances the comparability of country data across countries (Papadopoulos and Denis 1988).

However, any methodology using secondary data faces the same challenges regarding data availability, accuracy, reliability, timeliness and comparability (Kumar et al. 1994). Finding recent data often turns out to be rather difficult. Anyway, as numerous characteristics of a nation change very slowly, “old” data does not inevitably lead to invalid research results. Moreover, especially the availability of data that is comparable across countries is important to identify potential markets and sound segmentation results. However, as national practices regarding data collection and data analysis differ among countries the comparability of data is often limited. In addition, data for less developed countries are frequently missing due to government policy and/or inadequate data collection and reporting procedures (Day et al. 1988).

On the whole, the use of secondary data in identifying potential markets provides a relatively flexible and cost-effective approach (Kumar et al. 1994). Especially the high costs and difficulties of primary data collection encountered in foreign countries render the availability of secondary data even more valuable. However, the key challenges of using secondary data are still the identification, selection and analysis of the most relevant information sources among the vast amount of data sources available as well as the integration of results in management decisions (Douglas et al. 1982; Craig and Douglas 2002).

2.7 Summary

Neglecting differences in market environments and consumer preferences usually leads to a sub-optimal performance and limited profitability of companies in international markets. Hence, firms have to carefully evaluate variations in consumer tastes as well as divergences in the general business environment to formulate successful strategies based on an adjusted balance of standardization and adaptation. Thorough market segmentation and a careful market selection enable a firm to pursue strategies distinguishing homogeneous subsets of costumers and to target particular niche markets. In general, market segmentation and market selection are nevertheless, treated separately in literature.

However, a sound market segmentation approach may precede the selection of auspicious markets for market entry enabling a firm to identify attractive country clusters and to enter the countries within a cluster sharing rather similar market environments consecutively. The variables guiding the evaluation of countries in

international market segmentation and market entry decisions generally have to assess the same market conditions shaping a country's business environment. Apart from general indices assessing the economic, demographic, geographic, technological, social, legal, political, infrastructural and environmental characteristics of a country several cultural studies and frameworks, like the GLOBE project and the Hofstede or Schwartz values, provide valuable insights about cultural idiosyncrasies of countries.

The use of secondary data for international market segmentation and market selection faces the common weaknesses regarding data availability, accuracy and comparability. Nonetheless, secondary data represents a precious information tool guiding screening procedures to select countries saving the company time and costs.

3. Data Sources

The following chapter will introduce the data sources of the indices forming the data set. A closer look at the determination of relevant data and the reliability of the data sources employed will be provided.

Basically, a vast amount of information about economic, political and infrastructural circumstances is already easily accessible via the World Wide Web. Nowadays, a lot of diverse institutes and organizations as well as governments themselves issue miscellaneous indices about countries. However, the difficulty most prevalent in determining the relevant information for the problem at hand is the identification of useful and reliable key data in this information overload.

In the present case the compilation of the data is mainly based on international online sources. Generally, the indices are published by well-known international organizations, among them the CIA, the Worldbank and UNO. The extensive search for data focused on indices published by internationally operating organizations as the accuracy, applicability and comparability of data is rather guaranteed.

A few indices, all of them measuring cultural traits, are taken from journal articles and books, e.g. Hofstede (2001) and Schwartz (1994), or are developed in ongoing projects, e.g. GLOBE project (House et al. 2002).

3.1 CIA World Factbook²

The history of the World Factbook started way before the actual formation of the CIA. In 1943 the Navy and the Marines joined forces to collect, edit, coordinate and issue information to provide the government with strategic intelligence about countries and islands for planned military maneuvers. The wartime project JANIS was replaced by the peacetime National Intelligence Survey (NIS) in 1947 after the establishment of the CIA. In 1981 the NIS finally became an annual publication and was renamed *The World*

² Information in the following section is taken from: CIA (2008), "The World Factbook," Central Intelligence Agency, URL: <https://www.cia.gov/library/publications/the-world-factbook/index.html>, retrieved April 23, 2008

Factbook. Since then the World Factbook is updated periodically throughout the year and new categories were added over the years.

Today the World Factbook offers information about geographic, transnational and military issues as well as governmental, social and infrastructural standards in all countries and regions around the world.

The data is collected by several governmental departments, the National Science Foundation and several other public and private sources. The data is further edited by the Central Intelligence Agency to meet the specific information needs of governmental officials of the United States. Periodical updates guarantee the up-to-dateness of the published data.

Therefore, the CIA World Factbook represents a comprehensive source for macroeconomic indices and general information about a country. In addition the data is publicly accessible via the homepage of the CIA. However, the data still depends on different national definitions and specifications for several indices and as a result will not be exactly comparable among all countries. Furthermore, a lot of the data depends on census years, which vary considerably among countries. Recent updates are often only based on estimates. Generally, it is beyond the scope of the World Factbook to evaluate the standards guiding the assessment of the key data in diverse countries.

The Table 3.1 gives a summary of the indices selected from the CIA World Factbook, offering also a brief description of each index, its purpose and the suggested alignment in the underlying thesis.

Table 3.1 CIA World Factbook Indices

Index	Description	Use	Alignment	Last Update
Population Growth Rate	annual percent change (+/-) in population resulting from a surplus/deficit of births over deaths and the balance of migrants entering/leaving a country	assessment of overall market growth	general	2007 est.
Infant Mortality Rate	number of deaths of infants < 1 year in a given year / 1,000 live births in the same year	assessment of development & level of health in a country	demographic	2007 est.
Life Expectancy	average number of years to be lived by a group of people born in the same year (given constant mortality at each age in the future)	measure of overall quality of life in a country	demographic	2007 est.
Population 65+	% of population 65 years old and over	assessment of a country's age structure	demographic	2007 est.
Population below Poverty Line	% of population falling below poverty line	estimation of a country's wealth & development standards	demographic	most data 1992-2007
Literacy	% of population able to read and write at a specified age	measure of educational standards & development in a country	social	most data 2000-2004
Gini Index	measures the degree of inequality in the distribution of family income in a country	assessment of the distribution of wealth in a country	economic	most data 1993-2007
Religion	% of population being Christian/Hindu/Jewish/Muslim	assessment of cultural habits based on religious beliefs	cultural	n.a.

3.2 International Monetary Fund (IMF)³

The IMF is an international organization with 185 member countries established to encourage international monetary cooperation, exchange stability, economic growth and high levels of employment. Additionally, the IMF offers temporary financial assistance for countries to assist in balance of payments adjustment.

The main activities of the IMF comprise surveillance, financial assistance and technical assistance. *Surveillance* includes the mandate of overseeing the international monetary system and observing the economic and financial policies of its member countries as well as providing expert assessment of economic and financial developments and identifying risks to stability and growth. The provision of loans to countries with balance of payment difficulties is the core responsibility of the IMF. This *financial assistance* helps countries to stabilize their currency and to re-establish conditions for economic growth and international trade. However, unlike the World Bank or other

³ Information in the following section is taken from: International Monetary Fund (2008),

URL: www.imf.org, retrieved April 23, 2008

developing banks the IMF does not lend for specific projects. The IMF *technical assistance* promotes the enhancement of the productive sources of member countries by supporting them in effectively managing their economic and structural policies and financial issues.

As the IMF publishes a variety of time series data on lending, exchange rates and other financial and economic issues, typically based on the statistics of its member countries, the organization developed several standards and codes regarding data collection and dissemination. The Dissemination Standards Bulletin Board (DSBB) guides countries in their publication of financial and economic data. The Special Data Dissemination Standards (SDDS) support IMF member countries that aim to access international capital markets in the provision of economic and financial data to the public. The SDDS guidelines are only available for subscribers. In cooperation with the World Bank the IMF established two frameworks to assure the quality of the provided data: the General Data Dissemination System (GDDS) and the Data Quality Assessment Framework (DQAF). For further details on these two frameworks see Chapter 3.3. The Reports on Observance of Standards and Codes (ROSCs) capture the extent to which countries adhere to certain internationally recognized standards.

The publication of the IMF, the World Economic Outlook Report is usually published twice a year, in April and September. The report offers a detailed analysis of the world economy, discusses issues affecting industrialized countries and other topics of current interest. A comprehensive statistical appendix complements the report. Selected macroeconomic statistics from the World Economic Outlook Report are also published in the World Outlook (WEO) database⁴. All IMF indices used for the analysis in the underlying thesis are taken from the WEO database. Basically the WEO database provides data on national accounts, balance of payments, monetary issues, fiscal indicators, trade, and commodity prices. Information is available from 1980 to the present with projections for the next two years. Medium-term projections are also available for a number of indices. However, for some countries statistics may be incomplete or unavailable for certain years as the data is provided by member countries.

⁴ World Economic Outlook Database (2008),

URL: <http://www.imf.org/external/pubs/ft/weo/2008/01/weodata/index.aspx>, retrieved April 23, 2008

The Table 3.2 provides a summary of the indices taken from the International Monetary Fund with a short explanation of each index, its purpose and the suggested alignment in the underlying thesis.

Table 3.2 International Monetary Fund Indices

Index	Description	Use	Alignment	Last Update
Consumer Price Inflation	annual percent change of average consumer prices (inflation)	assessment of economic stability (potential risks of currency devaluation); information for pricing policy	economic	2008
GDP/Capita	cost of all goods and services completed within a country divided by total population & expressed in U.S dollars	measure to assess wealth and general well-being within an economy	economic	2008

3.3 World Bank⁵

The World Bank is an institution owned by 185 member countries supplying financial and technical support for developing countries all over the world. In fact not a bank in the common sense, the World Bank consists of two different institutions: the International Bank for Reconstruction and Development (IBRD) and the International Development Association (IDA). Both organizations focus on the reduction of poverty and the enhancement of living standards by providing low-interest loans, interest-free credits and grants to improve education, health standards, infrastructure, communications and other issues. However, the IBRD assists middle income and creditworthy poor countries whereas the IDA supports the poorest countries in the world.

The Data Development Group (DECG) is responsible for statistical and data work at the World Bank. They work with the World Bank's regions and sectors guided by high professional standards regarding the data collection and dissemination to guarantee the integrity and quality of the data provided.

The principal mission of the DECG is the provision of sound, high quality national and international statistics to clients within and outside the World Bank. In collaboration with other international organizations the DECG is constantly working on the

⁵ Information in the following section is taken from: World Bank (2008), URL: www.worldbank.org, retrieved April 25, 2008

development of new statistical methods and data gathering and dissemination standards. The principles guiding the improvement of data and statistics are consistent with the Fundamental Principles of Official Statistics and the Principles Governing International Statistical Activities of the United Nations Statistical Division (UNSD).

However, as most of the data is provided by member countries the quality of the data depends on how well the national statistical systems work. Therefore, the Data Group of the World Bank supports member countries to improve the preparation as well as the use of statistical information. The enhancement of the quality standards in national statistical systems lead to more effective policies and poverty reduction strategies.

Together with the IMF, the World Bank developed two frameworks to amend the quality of statistical data: the General Data Dissemination System (GDDS) and the Data Quality Assessment Framework (DQAF). The GDDS offers guidelines to evaluate national statistical systems and to promote the need for data improvement and publication. The DQAF proposes a methodology to judge data quality based on best practices of several internationally accredited concepts and definitions.

Generally the World Bank offers a reliable data source for international issues. The comprehensive publications World Development Indicators and Global Development Finance both rely on data provided by official sources.

The World Development Indicators (WDI) is a compilation of more than 900 indicators about development. The data is available for 152 economies with populations exceeding one million and for Taiwan, China. In addition a separate table compiles statistics for 56 smaller members of the World Bank with populations between 30,000 and one million. The Global Development Finance (GDF) provides statistics on external debt of developing countries on a loan-by-loan basis. All indices used in this thesis are taken from the WDI database.

The Data Development Group makes minor adjustments in the balance of payments to account for fiscal or calendar-year differences to ensure the consistency of definitions, time frames and methods. Nevertheless, periodical updates and revisions may lead to inconsistencies over time. Furthermore, diverging census years lead to discrepancies in the accessibility and the timeliness of the data. As a result there are considerable fluctuations in the availability of numbers leading to data ranges of up to two decades.

The Table 3.3 provides an overview of the indices selected from World Development Indicators database, including a short introduction of each index.

Table 3.3 World Bank Indices

Index	Description	Use	Alignment	Last Update
Urban Population	% of total population living in largest cities	assessment of the population distribution	demographic	most data 2004
Household Size	number of people living in one urban household nationwide	assessment of the size of families/households	social	most data 1980-2002
Paved Roads	% of total roads paved	information about the quality of the road network and general infrastructure	infrastructural	most data 1999-2004
Internet Users	number of internet users / 1,000 people	assessment of standards in technology & communication infrastructure	infrastructural	most data 2004-2005
Phone Subscribers	Fixed line&mobile phone subscribers / 1000 people	assessment of general development standards and (technology & communication) infrastructure	infrastructural	most data 2003-2005
Labor Costs	yearly labor costs in manufacturing / worker (in \$)	estimation of production costs	economic	most data 1990-1999
Exports/Imports of Goods and Services	value of all goods/services provided to/received from the rest of the world as % of GDP	assessment of the situation of industry, economy & trade;	economic	most data 1999-2006
R&D Spending	R&D expenditures as % of GDP	measure for the importance of & progress in research	technological	most data 1996-2003
Access to Water	% of population with sustainable access to improved water source	assessment of the quality of sanitary & development standards	environmental	most data 2000-2004
Energy Use	use of primary energy in kg of oil equivalent / capita	measure for industrial infrastructure & living standards	environmental	most data 2003
Motor Vehicles	number of motor vehicles / 1,000 people	assessment of motorization & mobility of population	environmental	most data 1990-2003
International Migration Stock	% of population born in a country other than that in which they live (including refugees)	assessment of cultural influences due to immigrants	cultural	most data 2000-2005

3.4 Doing Business⁶

Doing Business is a project of the World Bank to provide measures of business regulations and their enforcement for 178 countries and selected cities. The Doing Business project is the most ambitious and influential research to investigate the interrelation between law and business outcomes. The venture aims at capturing various issues of law and progress, analyzing their interaction, developing benchmarks for the

⁶ Information in the following section is taken from: Doing Business Project (2008),

URL: <http://www.doingbusiness.org/>, retrieved April 25, 2008

evaluation of legal systems and proposing legal reforms. As a result the research should individuate “the scope and manner of regulations that enhance business activity and those that constrain it” (Davis and Kruse 2007, p. 1096).

The annual publication of the Doing Business project in 2006 contains information regarding ten different types of business activity: (1) starting a business, (2) hiring and firing workers, (3) enforcing contracts, (4) getting credit, (5) closing a business, (6) registering property, (7) protecting investors, (8) paying taxes, (9) trading across borders and (10) dealing with licenses. The catalogue was expanded over the years starting with the first five business activities in 2004 and remaining stable at ten categories for the last two reports in 2006 (Davis and Kruse 2007).

Conventional data collection regarding legal issues is inadequate for the Doing Business survey as it is characterized by three main shortcomings. Firstly, international experts polled may often not have direct experience with the business conditions they evaluate. Secondly, the assessment of business conditions may be biased by the assumptions of business managers and thirdly, the approaches to quantify business conditions are inappropriate for promoting the theory of, and consequently, guiding regulatory reforms. Hence, the Doing Business project applies new methods of data collection to overcome these shortcomings.

Before designing a questionnaire the content of laws and regulations is analyzed by the Doing Business staff and academic advisors. The final questionnaire is developed for local experts, e.g. attorneys, judges, consultants, to evaluate laws and regulations as well as the time and cost incurred to comply with them. A hypothetical set of circumstances is defined to assist the local experts in answering the questionnaire. After completing the survey the results are discussed among Doing Business staff and local experts. A review by the staff and academic advisors may lead to further data collection with a refined version of the questionnaire. Additionally, the robustness of data is tested by varying the hypothetical conditions in subsequent data gathering procedures.

However, notwithstanding these steps to enhance data reliability, the Doing Business database cannot capture all legal norms influencing business activities. The quality of the provided data depends on the selection of all the right legal norms and practices and the appropriate measurement of these norms. The use of stylized cases may represent a

further shortcoming of the project as it only partly reflects actual legal practices (Davis and Kruse 2007).

The Table 3.4 provides an overview of the Doing Business indices complemented by a brief description of each index and its intended purpose for market segmentation.

Table 3.4 Doing Business Indices

Index	Description	Use	Alignment	Last Update
Enforcing contracts	measure for the efficiency of contract enforcement by following the evolution of a payment dispute (in days)	evaluation of the development of national contract law and potential legal risks going along with contracting local partners	legal	2008
Dealing with licenses	days to build a warehouse, obtaining necessary licenses and permits, completing required notifications and inspections	assessment of the difficulties to establish storage facilities and to get (building) permits	legal	2008
Strength of Legal Rights Index	degree to which collateral and bankruptcy laws facilitate lending	determination of legal protection in the case of a bankruptcy of a subsidiary or a local partner;	legal	2008
Rigidity of Employment Index	measure for the flexibility of labor regulations	evaluation of the difficulty to hire and fire employees and the flexibility of working hours	legal	2007-2008
Registering property	all payments to the property registry, notaries, public agencies or lawyers to register property (% of property value)	assessment of the possibility to buy land or edifices or business purposes	legal	2008
Days to start a business	time to complete all bureaucratic and legal requirements to start a business (in days)	evaluation of the bureaucratic and legal hurdles to establish a business	legal	2008
Total tax payable	amount of taxes a medium-sized company has to pay or withhold in a given year (% of gross profit)	measure for the tax burden reducing profit and increasing costs of production in a country	economic	2008

3.5 World Economic Forum⁷

The World Economic Forum (WEF) is an independent international non-profit foundation incorporated in Switzerland. The world's 1,000 leading companies are members of the World Economic Forum. They are characterized by ranking among the most successful companies within their industry or country, playing a decisive role in the future of this particular industry and managing their activities on a global scale.

⁷ Information in the following section is taken from: World Economic Forum (2008),

URL: www.weforum.org, retrieved April 17, 2008

Each year 100 of the most powerful companies join forces with the World Economic Forum and engage in projects, communities and events.

Guided by the motto “entrepreneurship in the global public interest” the World Economic Forum promotes a world-class corporate governance system, based on values aside from rules, as economic progress without social development is believed to be not sustainable. To face the complexity and fragility in the world today the WEF encourages the interaction among world leaders and experts in the field to shape the global, regional and industry environment.

The Global Competitiveness Network (GCN) of the World Economic Forum joins forces with international leading academics to assure that the latest methods of research are used to identify obstacles to growth and to develop appropriate strategies for persistent economic progress.

GCN Reports either have a global reach (The Global Competitiveness Report) or a rather regional (Arab World Competitiveness Report) and topical (The Gender Gap Study, The Global Information Technology Report) coverage. The two indices proposed for the analysis, the *Global Competitiveness Index* and the *Networked Readiness Index*, are taken from The Global Competitiveness Report (GCR) and The Global Information Technology Report (GITR) respectively. Hence, these reports are further described in the subsequent section.

The Global Competitiveness Report (GCR)⁸ is the most outstanding publication of the GCN offering a comprehensive evaluation of the comparative strength and weaknesses of countries. The GCR was first published in 1979 and provides data about the economic environment and growth for 125 major and emerging economies in 2006 and 131 countries in 2007. The key component of the GCR is the *Executive Opinion Survey* conveying information on variables, for which data sources are limited or nonexistent.

⁸ World Economic Forum Competitiveness Reports (2008),

URL: www.weforum.org/en/media/publications/CompetitivenessReports/index.htm, retrieved April 17, 2008

More than 11,000 business executives participated in the Executive Opinion Surveys in 2006 and 2007⁹.

The Global Information Technology Report (GITR)¹⁰ is the yearly publication of a research partnership between WEF and INSEAD and was first launched in 2001-2002. The research project copes predominantly with the capacity of countries to absorb information and telecommunications technologies (ICT) for progress and growth. The *Networked Readiness Index (NRI)* is the major methodological framework employed to measure a country's predisposition and preparation to take part in and benefit from ICT advances. The NRI is built on quantitative data, collected by international institutions, like the International Telecommunication Unit and the World Bank, and on qualitative data from the Executive Opinion Survey. The GITR provides data for the NRI of 122 economies in the 2006-2007 and 127 in the current 2007-2008 edition.

The independence from national definitions and limitations in the national statistic systems as well as the large number of international respondents lead to a reliable source for information. In the analysis of the underlying thesis data from 2006 was used as the 2007 report was not available at the time of data entry.

The Table 3.5 shows the indices chosen from the GCR and the GITR and gives a short description about each index and its use.

⁹ Mia, Irene and Soumitra Dutta (2007), "Information Technology Report 2006-2007," World Economic Forum, URL: <http://www.insead.edu/v1/gitr/wef/main/previous/chapters/GITR2006-2007.pdf>, retrieved April 17, 2008.

¹⁰ Mia, Irene and Soumitra Dutta (2007), "Information Technology Report 2006-2007," World Economic Forum, URL: <http://www.insead.edu/v1/gitr/wef/main/previous/chapters/GITR2006-2007.pdf>, retrieved April 17, 2008.

Table 3.5 World Economic Forum Indices

Index	Description	Use	Alignment	Last Update
Global Competitiveness Index	composite index assessing productivity & competitiveness accounting for infrastructure, education, readiness for innovation, macroeconomic & technological issues	measure to gauge the ability of the world's economies to achieve sustained economic growth over the medium to long term.	economic	2006
Networked Readiness Index	composite index to assess the readiness for the usage of ICT distinguishing environmental issues, the level of readiness of the community's key stakeholders and the intensity of usage	assessment of the degree of industrialization, technological advancement & the spread and integration of information technologies (especially Internet) in a country	technological	2005

3.6 Organisation for Economic Co-operation and Development (OECD)¹¹

The forerunner of the OECD, the Organisation for European Economic Co-operation (OEEC) was founded in 1947 in Paris to allot American and Canadian help under the Marshall Plan for the reconstruction of Europe after World War II. The Organisation for Economic Co-operation and Development (OECD) emerged in 1961 from the OEEC. Nowadays, 30 countries are members of the OECD. The OECD is funded by contributions of its member countries based on the size of each member's economy. The budget for 2008 amounts up to EUR 342.9 million.¹²

The OECD main aim is bringing together countries all over the world devoted to democracy as well as market economy to enhance economic growth, increase employment, improve living standards and sustain financial stability. Furthermore, the exchange of views and expertise with more than 100 other countries and economies assists the economic development of countries and contributes to a substantial growth in world trade.

Generally, the OECD is one of the most reliable sources of statistics on economic and social data. Besides collecting data, the OECD monitors and analyses trends, social

¹¹ Information in the following section is taken from: OECD (2008), URL: www.oecd.org, retrieved April 22, 2008

¹² OECD Budget (2008),
URL: www.oecd.org/pages/0,3417,en_36734052_36761854_1_1_1_1_1,00.html, retrieved April 22, 2008

changes and evolving patterns in the economic, technological or legal environment. Moreover, the OECD provides a platform where governments can exchange policy experiences and coordinate national and international policies. The intellectual output of the OECD is disseminated by various OECD publications either available as a print version through the OECD Online Bookshop or online through Source OECD, the online library of statistical databases, books and periodicals. The OECD Economic Outlook evaluates future prospects for member and large non-member economies. The OECD Factbook offers valuable information about economic and policy issues and the OECD Economic Surveys deal with individual national analyses and policy recommendations. Last but not least, Going for Growth gives evaluations of national performance and comparative indicators.

Additionally, the Directorate for Science Technology and Industry¹³ issues the 15 OECD Key ICT Indicators on an annual basis. Annual Updates depend on the availability of the relevant data. The publications should assist governments in policy-making concerning scientific, technological and industrial issues and analyze the link between the topics in question and growth, employment and standard of life.

Although the OECD provides reliable high quality data for various social and economic matters, the OECD statistics are quite limited in their use as most of them are only available for a small number of countries, typically for member states. However, they prove very useful and provide valuable insights when most of the countries investigated are OECD members as data on various topics interesting for marketing purposes, e.g. Expenditure on Recreation and Culture, is hardly available from other sources.

The Table 3.6 displays the selected OECD indices and additionally provides a short description of the intended purpose of the indices.

¹³ OECD Directorate for Science, Technology and Industry (2008),

URL: http://www.oecd.org/departement/0,3355,en_2649_33703_1_1_1_1_1,00.html, retrieved April 23, 2008

Table 3.6 OECD Indices

Index	Description	Use	Alignment	Last Update
Household Expenditure for Recreation and Culture	purchase of leisure time products as % of GDP	estimation of the value of leisuretime in a country and the willingness to spend money on activities and products not deemed necessary	social	2006
Internet Selling	% of enterprises with 10 or more employees, which actively engage in online sales	assessment of the diffusion and feasibility of online retailing facilities in B2B and B2C markets	technological	2007
Internet Purchasing	% of enterprises with 10 or more employees, which actively engage in online purchases	estimation of the existence and feasibility of an online procurement network in B2B markets	technological	2007

3.7 United Nations Development Programme (UNDP)¹⁴

The United Nations Organisation (UNO)¹⁵ was founded in 1945 by the representatives of 50 countries. Today, the UNO has 192 member countries. The United Nations Charter, ratified by a majority of large economies on the 24th of October 1945 (United Nations Day), is the constituting instrument of the United Nations describing the rights and responsibilities of member states, setting up the functional organs and pointing out the purposes of the UN. The main aims mentioned comprise the preservation of international peace and security, the fortification of prosperous relations among states to improve the cooperation regarding social, cultural and humanitarian challenges. The promotion of human rights and elementary freedoms is a further concern of the United Nations. A major part of the financial funds of the international organisation derives from the contributions of member states. The amount each country has to contribute is assessed on a scale taking into consideration the costs of peacekeeping operations and a country's ability to pay, determined by an adjusted total gross national product to account for several influences including a country's income per capita.

The United Nations consists of six principal organs, which are General Assembly, Security Council, Economic and Social Council, Trusteeship Council, International Court of Justice and Secretariat, 15 agencies and various other programs.

¹⁴ Information in the following section is taken from: United Nations Development Programme (2008), URL: <http://www.undp.org/about>, retrieved May5, 2008

¹⁵ United Nations (2008), URL: <http://www.un.org/aboutun>, retrieved May 5, 2008

The United Nations Development Programme (UNDP) is a network to enhance global development and to promote an efficient use of knowledge, experience and resources to improve living standards in about 166 countries. Moreover, the UNDP works on the ambitious objectives of world leaders to cut poverty in half until 2015 by sharing know-how concerning democratic governance, poverty reduction, crisis prevention and recovery, environment and energy as well as combating HIV and Aids. UNDP support should assist countries in attracting and efficiently using international aid and should guarantee the protection of human rights and the empowerment of women.

The UNDP and its subsidiary funds, the UN Development Fund for Women (UNIFEM), the UN capital Development Fund (UNCDF) and UN Volunteers (UNV) issue several publications which are available online free of charge. The most comprehensive publication of the UNDP is the Human Development Report. This annual report points out important development issues, innovative policy suggestions and new assessment and analysis tools. In addition to the global Human Development Report also national and local versions adhering to the analytical framework of the global publication are issued.

The information summarized in the numerous reports by the UN and the UNDP offer precious insights in social and political matters of a country. Elaborated, complex indices represent important information on current topics and links between various aspects for over 190 countries. However, the comparability and accuracy of the complex indices depends on the reliability of the national data sources of member states, which provide data on the basic indicators chosen. Especially data on income and employment is not always exactly comparable as it depends on definitions and the availability of data for all sectors, including the informal sector.

The Table 3.7 depicts the index selected from the UNDP providing also a brief description and a short outline of its use.

Table 3.7 UNDP Index

Index	Description	Use	Alignment	Last Update
Gender-related development index (GDI)	index assessing the gender differences for life expectancy, education and living standards	assessment of the level of economic and social development with regards to equal opportunities for men and women	social	2007-2008

3.8 Bertelsmann Stiftung¹⁶

The Bertelsmann Stiftung is a trust supporting various projects and workshops concerning the transformation and development of countries and their economies. As the transformation process is hampered by stagnation, the failure of governments and other disputes, political assistance and use of expertise should successfully direct countries towards democracy and a market economy considering also sociopolitical issues. The project “Den Wandel Gestalten – Strategien der Entwicklung und Transformation” focuses on the enhancement of political efficiency guiding transformation processes and the successful integration of well-established strategies. The workshop “Transformation Thinkers” facilitates the exchange of experiences and know-how among decision makers of developing and emerging countries. The interaction of leaders and academics of countries on diverse stages of transformation enables international comparison and the exchange of useful or abortive experiences. Furthermore, Bertelsmann Stiftung takes part in the “International Advisory Committee”, an advisory panel formed by politicians, experts and former presidents, to guarantee a transparent selection process for the “Community of Democracies”, a consortium of democratic states to further promote best-practice transformation policies and to improve the worldwide cooperation for the expansion of democracy.

Detailed country profiles provide information about progress, challenges and political efforts in the country under investigations. External country specialists work on the issues published and additionally, experts from the countries investigated further comment on the topics. To assess the stage of political and economic development analytically the Bertelsmann Stiftung has developed several indices describing general transformation, a shift to democracy in politics and the management abilities of current governments. In 2006 data on 119 developing and emerging countries in the world was available; in 2007 the number was raised up to 125 countries. Principally, all countries considered developing or emerging markets at the beginning of the project with more than two million inhabitants are included in the analysis.

The Bertelmann Stiftung provides a sound and highly qualitative data source for a majority of countries in the world. The indices capture important economic and political

¹⁶ Information in the following section is taken from: Bertelsmann Stiftung (2008),

URL: www.bertelsmann-transformation-index.de, retrieved April 18,2008

issues and help to assess risks and opportunities of countries. It enables comparison and grouping of countries according to their stage of democracy and market economy, both important issues for companies in a foreign market. However, the availability of data for a country depends on the development stage of the country as data is prevalently available for countries in transformation. Moreover, the computation of the index relies on several other indices taken from different data sources to measure social and political trends.

The indices selected from the Bertelsmann Stiftung are listed in the Table 3.8 with a short description and an outline of their intended use.

Table 3.8 Bertelsmann Stiftung Indices

Index	Description	Use	Alignment	Last Update
Bertelsmann Economic Transformation Index	measure for the political and economic progress of a country including initiatives directed towards democracy and market economy by politicians	assessment of the level of development of democracy and economy within a country; proxy for the political stability in a country	economic	2008
Bertelsmann Management Index	quantitative measure to gauge the ability of politicians to manage transformation successfully	evaluation of future stability and perspectives of a country determined by transformation policy; proxy for the level of economic development in transition markets	political	2008
Bertelsmann Political Transformation Index	quantitative measure for the stability of democratic institutions, the condition of the state, political participation and constitutional legality	estimation of the sustainability of a democratic government and democratic institutions as well as the actual constitutional legality of a country	political	2008

3.9 Konjunkturforschungsstelle (KoF)¹⁷

Konjunkturforschungsstelle (KoF) is an organization of the ETH Eidgenössische Technische Hochschule Zürich (Swiss Federal Institute of Technology Zurich). An emphasis is put on research objectives like the development of the Swiss economy, monetary and fiscal policy, the Swiss labor market, the success of different sectors in the domestic and in overseas markets as well as on the computation of composite indicators predicting changes in the economic situation. Three main research fields,

¹⁷ Information in the following section is taken from: Konjunkturforschungsstelle (2008),
URL: www.kof.ethz.ch, May 5, 2008

namely the economic cycle, the international economy and the structural change- all with regards to Switzerland, are defined.

The structural change is assessed via activities regarding innovations and investments by surveying a panel of 6500 firms. Every year or every third year the results are published on the KoF website. International forecasts based on national accounts are published in the field of international economy. It is a quarterly service only available for a fee aimed at financial institutions and exporting companies.

The economic cycle is evaluated by economic surveys and several indices concerning the economic situation. The surveys focusing on the economic cycle are carried out among companies in different industries to assess the development of the economic situation for specific sectors or regions. The *Konjunkturbarometer* is calculated by merging all sectors except the credit business and the construction sector into a modified GDP assessed by three sub-indicators regarding Swiss industry, Swiss consumption and Swiss exports to the European Union. As a result the *Konjunkturbarometer* allows prediction about the growth tendency of GDP. The *Monetary Policy Communicator* represents a quantitative measure of the future monetary policy of the European Central Bank. It is issued monthly based on forward-looking statements regarding price stability and the refinancing rate for the next two to three months. The *Index of Globalization* merges several dimensions of globalization and is published once a year.

Basically, the Konjunkturforschungsstelle provides valuable economic data updated on a regular basis, monthly, yearly, trimestrial or every third year. The availability of data depends on the research field. Data on structural change and on *Konjunkturbarometer* are only available for Switzerland. The *Monetary Policy Communicator* is given for the Euro area. The international forecasts are issued for Switzerland, the EU and the OECD and for several main economies in the World like USA, Japan, Germany, France, Great Britain, and Italy. The KoF Index of Globalization is available for 122 countries in the World over the period 1970 to 2008.

Generally, the Switzerland is the country of reference and its role in the international economy is emphasized. In fact this focus on Switzerland and the large economic areas like the EU hampers the applicability of the indicators in international research. The only index available for a reasonable number of countries is the Globalization Index.

Therefore, it is the only index of KoF selected for the subsequent analysis to capture the globalization and progress of economies in the World.

The KoF Index of Globalization is a complex index. The data for the various sub-indices is taken from different sources, including the aforementioned World Bank and IMF. Therefore, the resulting overall index of globalization depends on the quality of the national statistics systems and the methodologies and standards set by numerous organizations. As a result, the values for the Globalization Index might vary slightly due to the diverse data sources the computation of the index is based on. Summing up, the quality of the indicator in questions rises and falls with the accuracy of data collection and calculation definitions of the sub-indices. Still, the Globalization Index provides very useful information for international firms on the market openness for foreign companies and their products.

Table 3.9 KoF Index

Index	Description	Use	Alignment	Last Update
Globalization Index	measure for economic (foreign trade and investments), social (foreign cultural influences) and political (international dissemination of government policies) globalization	evaluation of the readiness of a country for foreign companies, products and other influences	general	2008

3.10 Freedom House¹⁸

Freedom House was founded in 1941 by several well-known Americans like Eleanor Roosevelt and Wendell Willkie. The main aim was to create a non-profit, nonpartisan organization to promote democratic values and to oppose dictatorships and religiously motivated totalitarian regimes. The worldwide advancement of economic and political freedom is guiding the work of Freedom House. Cooperations with US policymakers, international institutions and governments of stable democracies are formed to enhance human rights and democracy all around the world. Additionally, Freedom House partners with individuals working in young democracies to surmount the legacies of dictatorships and political repression, as well as with activists working in authoritarian societies to enhance freedom.

¹⁸ Information in the following section is taken from: Freedom House (2008),

URL: www.freedomhouse.org, May 5, 2008

The data on the status quo of freedom in the countries all over the world is gathered by overseas correspondents, staff and consultant travel, international visitors, specialists in geographic and geopolitical areas. Furthermore, reports of governments and multilateral bodies as well as domestic and international news media support the data collection. Especially the International Freedom of Expression Exchange network is a precious source for the analysis of press freedom violations worldwide.

The use of various data sources suggests a rather extensive coverage of freedom issues and considerable objectivity on the topic. Data is fairly comparable across the 194 countries and territories accounted for as the data collection does not depend on national definitions and calculations. Expansions of the methodology since 1980 should improve the representation of the information without derogating the comparability of indices over time.

The two indices published, World Freedom and Press Freedom, quantitatively express the information collected. World Freedom evaluates of the state of global freedom as perceived by individuals. Not the performance of the government but social freedom and actual rights of the individual are subject of the rating. Press Freedom evaluates the freedom of information flows and broadcasting. As several other indices used in the subsequent analysis cover diverse aspects encompassed by the index of World Freedom, only the Press Freedom Index is used for further discussion.

Table 3.10 Freedom House Index

Index	Description	Use	Alignment	Last Update
Press Freedom	measure of political and legal influences as well as economic pressures on the media environment	assessment of the freedom of expression and the oppression of the media	political	2005

3.11 Transparency International¹⁹

Transparency International was formed in 1993 as a non-partisan body to lead the fight against corruption and bribery. The organization sees itself as “the global coalition against corruption”, bringing together people all over the world to enforce the anti-corruption movement. The main ambition driving the action of Transparency

¹⁹ Information in the following section is taken from: Transparency International (2008),
URL: www.transparency.org, retrieved May 5, 2008

International is the diminishment of apathy and tolerance towards corruption and the sensitization for the topic of corruption. To spread the ideas of Transparency International 90 local offices organized in a global network are established to fight corruption on the national level. Campaigns lobby governments to realize anti-corruption reforms and promote transparency in elections, public administration, procurement and administration by bringing together agents from government, civil society, business and media. Transparency International does not undertake investigations of suspected corruption in individual cases, but works together with organizations that engage in the clarification of corruption cases.

Corruption itself is defined as the abuse of power for private gains. Generally, corruption harms everyone who depends on the integrity of authorities and people in position of power. The values of democracy and the human rights are undermined where corruption is common. The wise use of natural resources and national and international trade built on fair agreements are hampered by bribery and corrupt behavior. Where government and elections are based on corrupt actions general poverty and discrimination of people with little power increases. As a result, the progress and international competitiveness of countries with an elevated level of corruption are severely endangered.

Transparency International conducts two surveys on a yearly basis to measure the acceptance of corruption and the actual willingness to bribe authorities. The Bribe Payers Index estimates the propensity of firms from developed countries to bribe abroad while the Global Corruption Barometer evaluates the general public attitude towards and the familiarity with corruption in countries around the World. The Corruption Perceptions Index is the best known tool released by Transparency International. It is issued annually and ranks 180 countries based on the perceived levels of corruption.

In general, Transparency International provides data for a reasonable number of countries on a topic that is complex to measure. There are no official numbers for bribery or corruption cases and unbiased data is difficult to get. Taking the number of successful prosecutions does not reflect the actual level of corruption, but the efficiency of prosecutors, and would only capture a small percentage of all corruption cases. Transparency International approaches the difficult task to assess the level of corruption by using 12 diverse sources from nine different organizations providing surveys among business people and assessments by country analysts for the calculation of the

Corruption Perceptions Index 2006. The sources include various independent, international institutions like the World Bank, Freedom House and the World Economic Forum. The different sample frames and methodologies employed by each of the data sources should overcome the complexity of the matter at hand by approaching the issue of corruption from diverse angles, e.g. corruption perception, corruption control, anti-corruption efforts and bribery in governments and economy. Only those information sources are included that use the same methodology for their survey in all countries investigated. Therefore, Transparency International does not only offer valuable information on the issue of corruption, but the data is also fairly comparable across countries, which enables the evaluation of countries according to the perceived integrity of authorities and business practice. Although, the index itself only captures the perceived and not the true level of corruption, it could be assumed that it is the most reasonable way to approach actual levels of corruption as people interviewed are business executives and country experts experiencing everyday business life.

Table 3.11 Transparency International Index

Index	Description	Use	Alignment	Last Update
Corruption Perception Index (CPI)	degree to which corruption is perceived to exist among public officials and politicians	evaluation of potential risks inherent in corrupt public institutions for business operations	political	2007

3.12 The Fund for Peace²⁰

The Fund for Peace was founded by Dorothy D. Compton and Randolph D. Compton in memory of their son John Parker Compton, who was killed in action during the World War II. The chief mission of the Fund for Peace is the prevention of war and the attenuation of conditions that may cause war. Basically, the balance between the nations in the world is jeopardized by four conditions: overpopulation, disproportionate distribution of resources, environmental pollution and the confusing status quo of human rights. These four circumstances guide the actions of the Fund for Peace. The projects conducted by the organization should confront issues endangering the cooperation among countries and inform the American public about arising international crises. Principally, the work of the fund is based on research and public

²⁰ Information in the following section is taken from: Fund for Peace (2008),

URL: www.fundforpeace.org, May 5, 2008

engagement. In various partnerships and efforts peace and sustainable stability are promoted. Research should define the problems and find proficient answers. The knowledge gained is crucial for the participation in debates to inform the public.

In the sector of peace and stability operations a major research focus is put on new challenges facing regional and international organizations like the UN to maintain peace and to advance stability operations. In collaborations with peacekeeping organizations, leading international experts and journalists in troubled regions in the World capacities to contribute to stability operations and the protection of civilians in operational zones are analyzed.

The efforts of the Fund for Peace regarding sustainable development should ensure the establishment of societies promoting transparency based on the rule of law and economic growth in conflict zones. The Globalization and Human Rights Series provides information about the main issues linked to sustainable security and stability for finance institutions, development and aid organizations and non-governmental agencies promoting peace through dialogue.

Diverse other projects and partnerships work on the identification of specific threats for peace and stability. The project on Threat Convergence for example examines the global security risks of terrorism while the NATO Partnership for Peace works on collaborations and solutions to meet the challenges imposed by threat convergence.

To successfully work on the prevention of war and the preservation of stability the Fund for Peace applies its Conflict Assessment System Tool (CAST) to calculate the Failed States Index, to create country profiles, to issue country alerts highlighting previous trouble spots and to prepare country assessments on demand.

Among the most prevalent publications are the Annual Report, Country Profiles, the Failed States Index, the Globalization and Human Rights Series as well as the Iraq Reports. The *Failed States Index* is a comprehensive indicator on social, economic and political pressures within a country. First introduced in 2005 the Failed States Index nowadays conveys information about 177 countries and is published annually.

The Failed States Index is a valuable source to assess the risk of instability for a country. By taking into account a comprehensive list of factors influencing the stability and legitimacy of legislative, executive and judicial institutions the risk of violent

outbreaks and coup d'états is quantified. Even though, the Failed States Index captures a complex topic the elaborated CAST tool and the vast amount of sources incorporated in the computation of the index guarantee a relative significant representativeness for a country's situation regarding peace and stability. Inconsistencies, however, may derive from the fact that diverse, individual events are included for each country.

Table 3.12 The Fund for Peace Index

Index	Description	Use	Alignment	Last Update
Failed States Index	12 political, economic, military, and social indicators of instability	assessment of the stability of the current government; evaluation of the probability of rapid political changes and expropriation of businesses	political	2008

3.13 World Wide Fund for Nature (WWF)²¹

Founded in 1961 as a non-partisan organization in Switzerland the World Wide Fund for Nature (WWF) became one of the World's leading and most influential association for the preservation of nature over the last five decades.²² Since 1985 the WWF has invested more than one billion US dollars in about 12.000 projects for nature and wildlife conservation. The WWF is mainly funded by about five million supporters around the World and governed by a Board of Trustees presided by an International President, currently Emeka Anyaoku. The 90 offices of the WWF with more than 3800 employees in 40 countries are coordinated from the headquarters of WWF International in Gland, Switzerland. Basically, the offices are categorized into two categories: fund-raising, autonomous offices and dependent offices working under the direction of an independent WWF subsidiary. However, all WWF offices carry out the same tasks concerning field projects, scientific research, environmental education and awareness arousal as well as collaborations with local and national governments on environmental policy. The specialist offices in Brussels and Washington D.C. work to influence the policies and activities of the European Union and of global organizations like the World Bank respectively. Four associated organizations of the WWF collaborate with the WWF in countries where the WWF has not yet established an independent office. They

²¹ Information in the following section is taken from: WWF (2008), URL: www.wwf.org, May 18, 2008

²² WWF Switzerland (2008),

URL: <http://www.wwf.ch/de/derwwf/ueberwwf/organisation/geschichte/index.cfm>, May 18, 2008

work on joint conservation projects but do not contribute financially to the WWF. International campaigns and global partnerships are coordinated by WWF International in Switzerland. Essentially, all projects supported by the WWF are part of the campaign to promote the preservation of the Earth's natural environment and a life in harmony with nature.

The Living Planet Report is the yearly publication of the WWF on "the changing state of global biodiversity and the pressure on the biosphere arising from human consumption of natural resources" (WWF 2006, p. 2). Principally, the report is based on two core concepts. The *Living Planet Index* captures the health of the Earth's ecosystems while the *Ecological Footprint* illustrates the extent of human demand on these ecosystems. Trends over the last decades are analyzed to create three potential future scenarios. The calculation of the two indices is based on diverse data sources. Data for the Living Planet Index is gathered from various scientific journals, NGO publications and the Internet. Country-level calculations for the Ecological Footprint are taken from the National Footprint Accounts regularly updated by the Global Footprint Network and its over 70 partner organizations²³. The calculations of the National Footprint Accounts are predominantly based on data sets issued by the Food and Agriculture Organization (FAO), the International Energy Agency (IEA), UN Statistical Division and the Intergovernmental Panel on Climate Change (IPCC). The Ecological Footprint was included in the data set for further analysis as it captures the industrialization and exploitation of resources in a country.

The WWF has a long history in promoting the preservation of nature and wildlife and offers two sound indices and several sub-indices assessing environmental issues. While the Living Planet Index measures the level of biodiversity, the Ecological Footprint captures the actual impact of human civilization on the Earth's ecosystem. The computation of the Ecological Footprint employs data from fairly reliable international organizations offering data for nearly all countries in the World. The concept of the Ecological Footprint is easily comprehensible since it expresses the amount of resources the average person consumes within a year in terms of hectares.

²³ Ecological Footprint (2008), URL: www.footprintnetwork.org/2006technote, May 18, 2008

Still, the final Ecological Footprint is always only as good as the indices used for the calculations. Therefore, feasible inconsistencies in the data might occur due to diverging definitions in countries and organizations.

Table 3.13 WWF Index

Index	Description	Use	Alignment	Last Update
Ecological Footprint	area of biologically productive land and water needed to provide ecological resources and services – food, fibre, and timber, land on which to build, and land to absorb carbon dioxide (CO ₂) released by burning fossil fuels	assessment of environmental policies and issues in a country	environmental	2006

3.14 SEDAC – The Socioeconomic Data and Applications Center²⁴

SEDAC is a NASA-funded sub-organization of the Center for International Earth Science Information Network (CIESIN) at Columbia University in New York. The chief mission of SEDAC is the integration of Earth Science and social sciences to account for the social dimension of environmental change. The provision of an “information gateway” should combine the two research fields to provide valuable information for decision makers and researchers. SEDAC initiatives are designed to support decision makers to synthesize and use Earth and social sciences in research, educational activities and decision making by offering data products and applications for interdisciplinary data integration.

SEDAC is a valuable information source gathering data about environmental policies, emissions and climate change, the supply of resources, human development and on a vast amount of geographical issues for more than 190 countries. Data is mostly collected from international organizations like the UN, the OECD, and the World Health Organisation (WHO) or from scientific associations and research centers like the Convention on Biological Diversity or CIESIN itself. All 76 indices collected in the 2005 Environmental Sustainability Index Report are used to compute an overall index on environmental sustainability to benchmark a country’s ability to protect the environment over the next decades (Esty et al. 2005).

²⁴ Information in the following section is taken from: Socioeconomic Data and Applications Center (2008), URL: <http://sedac.ciesin.columbia.edu/>, May 19, 2008

Even though, the Environmental Sustainability Index provides extensive information about countries and the conservation of the environment, the level of aggregation may be too high to use the overall index in an analysis for marketing purposes. Numerous indices entering the calculation for the Environmental Sustainability Index have no direct impact on marketing decisions. Consequently, only several single indices used for the computation may be interesting for the problem at hand. Beside diverse indices on pollution, environmental hazards and environmental politics the report publishes data edited by CIESIN on the anthropogenic impact on the nature in a country. The percentage of areas with very low anthropogenic impact permits inferences about the distribution and density of the population which in fact is a major issue for infrastructure and logistics.

Table 3.14 SEDAC Index

Index	Description	Use	Alignment	Last Update
Wildness	Percentage of land area having very low anthropogenic impact (population, land use, roads, railways,...)	evaluation of the development of infrastructure influencing distribution decisions	environmental	2005

3.15 Nationmaster²⁵

Nationmaster offers data from various international sources like the CIA World Factbook, the United Nations, OECD and World Bank. It supports the user in navigating the vast amount of data sources in the Internet providing a large compilation of information, from soldiers to wall plug voltages. Beside more than 2800 statistics, the website of Nationmaster provides country profiles and interactive correlation reports and maps. Data sets that are not any longer available from the original source may still be accessible on the Nationmaster homepage. The two indices taken from Nationmaster, Radios per capita and Televisions per capita, were no longer listed in the country profiles of the CIA World Factbook, but data for 2003, the last year available, is still retrievable on Nationmaster.com.

In general, Nationmaster represents a good website to get an overview about the numerous statistics and various data sources on the Internet. Data is clearly presented and easily accessible. Data for the last obtainable year for indices discontinued by the

²⁵ Information in the following section is taken from: Nationmaster (2008),

URL: www.nationmaster.com, retrieved May 19, 2008

original source are available as well as limited parts of data sets generally only available for a fee (e.g. BigMac Index) are accessible free of charge. However, for detailed definitions and full data set one should use the original source.

The table below depicts the two indices selected from the Nationmaster database providing also a short description.

Table 3.15 Nationmaster Indices

Index	Description	Use	Alignment	Last Update
Televisions/capita	number of televisions per 1,000 people	estimation of the coverage and impact of TV spots; assessment of economic well-being and infrastructure	infrastructural	2003
Radios/capita	number of radios per 1,000 people	estimation of the coverage and impact of radio commercials	infrastructural	2003

3.16 The Hofstede Framework

Hofstede's framework is perhaps the most known and influential cultural framework. Using the data of the employee attitude survey program of IBM Hofstede identified four country culture dimensions: power distance, depicting the level of social inequality, uncertainty avoidance, capturing the handling of uncertainty in economic and social contexts, individualism/collectivism, describing the relationship between the individual person and the group, and masculinity/femininity, accounting for social connotation of gender. In a subsequent study a fifth dimension of long-term versus short-term orientation, based on Chinese philosophy, was added (Hofstede 2001; Steenkamp 2001).

The multinational corporation IBM served as the research setting for the employee attitude surveys since it had subsidiaries in a reasonable number of countries around the World. The surveys took place between 1967 and 1973 in two survey rounds. After two pioneer surveys between 1966 and 1967 with over 180 items and eight different language versions in several European, Asian, Latin American and Pacific countries a revised survey with 160 items and 18 language versions was administered in all European and Middle Eastern administrative and marketing subsidiaries and manufacturing plants from 1968 to 1970. The first survey round included about 60.000 respondents in over 53 countries. The second survey round started in 1970. The questionnaire was further reduced to a core set of 60 questions and 66 additional

recommended questions. Furthermore, managers and researchers in local subsidiary were allowed to add supplementary questions. Again the survey was available in 18 different languages. In the end the second survey was completed by 30.000 respondents, who had already participated in the first round and 30.000 new respondents (Hofstede 2001).

The original versions of the questionnaire were in English using plain formulations without culturally loaded expressions. Bi- and multilingual IBM personnel made the translation into other languages and checked the translated versions. As the surveys were designed to be a useful managerial tool but not a scientific instrument back-translation was only used in exceptions. The distribution of the surveys was organized according to IBM's infrastructure in the countries. In larger subsidiaries separate research staff administered the survey whereas in smaller subsidiaries "survey coordinators" were appointed. For very small subsidiaries or branch offices in remote locations the questionnaire was administered via mail. Mostly middle-class respondents were included in the surveys due to the selection of administrative and marketing departments which participated. Working-class respondents existed only in the 1970 survey among employees of manufacturing plants (Hofstede 2001).

Most of the questions used in the IBM surveys could be rated on 5-point answer scales and were classified in the following four categories: satisfactions, providing a personal evaluation of a certain work situation, perceptions, eliciting subjective descriptions of a specific work situation, personal goals and beliefs, asking for personal beliefs and desirable job situations, and eventually demographics. The initial four culture dimensions were derived using a combination of eclectic analysis of data and country-level factor analysis. In the initial analysis the number of countries was limited to 40 countries with more than 50 respondents each. Later on 10 more countries were included as well. Nowadays, scores for the four basic dimensions are available for 65 countries (Hofstede 2001).

The fifth dimension long-term versus short-term orientation was identified in the Chinese Value Survey (CVS) developed by Michael Harris Bond of the Chinese University of Hong Kong in the 1980s. This fifth dimensions is independent from the four dimensions identified in the IBM studies. The Chinese Value Survey is the Eastern correspondent to the IBM studies based on a value set influenced by Eastern scholars not by Western value sets. The CVS was conceived to deliberately introduce an Eastern

bias in a value survey as has happened in surveys developed by Western minds (Hofstede 2001).

The questionnaire for the Chinese Value Survey includes 40 items inspired by Chinese philosophers and social scientists. The original Chinese version was translated into English and repeatedly checked by bilingual persons. In an initial survey round the questionnaire was administered in 22 Asian and non-Asian countries drawing samples of 100 students (50% female, 50% male) in each country. In a later survey round eight additional translations of the questionnaire, if possible directly from the Chinese version, were used and mainland China was added to the number of countries surveyed. The respondents were asked to rate their individual importance of each of the 40 items on a scale from 1, no importance at all, to 9, supreme importance. The factor analysis of the standardized mean scores for the initial 22 countries yielded 4 dimensions. The three dimensions Power Distance, Individualism and Masculinity extracted in the IBM studies were replicated, while the new dimension of long-term versus short-term orientation arose instead of uncertainty avoidance. This new dimension is attributed to the difference in the value attributed to the search for stability and absolute truth in Eastern and Western cultures. Currently values for the fifth dimension of long term/short term orientation are available for 36 countries (Hofstede 2001).

A number of different studies in international marketing used Hofstede's cultural framework. Especially for the investigation of the different consumer responses to marketing stimuli the framework was used rather often. However, the Hofstede items refer to work-related values which might not perfectly describe a person's priorities in other situations. Essentially, the correspondence between the definitions of the cultural dimensions and the items used to measure them is questionable. Moreover, the consistency of the items' meaning across countries is not verified (Steenkamp 2001). The samples may not be representative for the population as most respondents were members of the middle class working for an international corporation. The loose organization of the data collection regarding the size of the questionnaire, the translation process and the administering of the survey further lessen the validity of the resulting cultural dimensions. Hofstede itself noted that the editing and coding of the data was a difficult task due to inconsistencies in the questionnaires of different countries and in the data collection in general (Hofstede 2001).

Like the IBM studies the Chinese Value Survey does not ensure the consistency of items in all countries surveyed. The respondents were exclusively students completing a wide range of undergraduate majors and not a representative sample including respondents from different backgrounds. The resulting new dimension of long-term versus short-term orientation could be seen as the counterpart of uncertainty avoidance when Eastern values are introduced. As the two dimensions depend on the cultural background of the researcher designing the survey one could assume that the items building the two dimensions capture to a large extent value concepts only common in the culture of reference for the questionnaire design.

Although, the data was collected three decades ago, Hofstede's dimensions may still reflect prevalent values among employees as national culture is believed to change rather slowly. Hence, Hofstede's extended framework still represents the largest and most comprehensive work on cultural dimensions covering an impressive number of diverse cultures (Sivakumar and Nakata 2001).

Table 3.16 Hofstede Indices

Index	Description	Use	Alignment
Power Distance	extent to which power is distributed unequally as perceived by the less powerful	assessment of the importance of and respect for hierarchical orders	cultural
Masculinity/Femininity	degree to which social gender roles differ	evaluation of the distinction between gender roles in society; assessment of who makes purchase decisions	cultural
Individualism/Collectivism	measure for the relationship between the individual and society	assessment of the importance of family or friends; assessment of key sources for product information	cultural
Uncertainty Avoidance	extent to which uncertain and unknown situations are perceived as threatening	evaluation of the openness of society for innovations and new products; indicator for a preference of regulations and laws in a country	cultural
Long/Short Term Orientation	measure for the orientation of society towards the future or the past	measure for the attitude toward long term success and the sensitivity to social trends in consumption	cultural

3.17 The Schwartz Framework

Apart from Hofstede's framework Schwartz's work on cultural value dimensions deals also with the development of a national cultural framework. (Schwartz 1994) suggests three bipolar dimensions with seven cultural domains. The three dimensions comprise conservatism versus autonomy, depicting if a person is seen as a part of collectivity or as a unique, autonomous entity, hierarchy versus egalitarianism, describing the importance of ascribed roles or voluntary agreements, and mastery versus harmony, capturing the relations of humans to nature and society (Steenkamp 2001). The seven national cultural domains conservatism, intellectual and affective autonomy, hierarchy and egalitarian commitment as well as mastery and harmony will be discussed into more detail in the chapter about indices.

Data was collected in a value survey between 1988 and 1992. 86 samples from 41 cultural groups in 38 countries were surveyed. The smallest sample comprised 76 respondents the largest sample included 1868, but in most cases sample size ranged between 150 and 300 respondents. 38 samples were drawn from schoolteachers, 35 samples included only university students, 12 samples reflected the general adult population and two samples adolescents. The survey was mostly administered in groups, in some cases to individuals and in a few exceptions via mail. The respondents could rate the individual importance of 56 values selected for the questionnaire on a scale from 0 (not important) to 7 (supreme importance) (Schwartz 1994). The values were drawn from the following eleven dimensions of value types: Self Direction, regarding independent thought and action, Stimulation, focusing on the need for variety and stimulation, Hedonism concerning pleasure experienced when satisfying needs, Achievement, accounting for personal success and competence, Power depicting the issue of status differentiation, Security, defining the need for harmony, safety and stability, Conformity, assessing the prevention of socially disruptive actions and behavior, Tradition, capturing information about typical symbols and common experiences, Spirituality, describing the importance of supernatural explanations to transcend everyday life, Benevolence, emphasizing the well-being of close others in everyday life, and last but not least Universalism, referring to appreciation and tolerance for nature and all people (Schwartz 1992). As the survey was conducted in the native

languages of respondents the questionnaire was back-translated²⁶ and further refined by native speakers (Schwartz 1994).

To derive the cultural dimensions a mean importance rating of the 45 values included in the final analysis due to their consistent meaning for individuals across cultures is calculated. A multidimensional scaling technique²⁷ is used to identify the national cultural dimensions (Schwartz 1994).

The Schwartz framework is designed to overcome several weaknesses of the Hofstede concept like the questioned exhaustiveness of the four value dimensions, the arguable equivalence of meanings across nations, constraints regarding the sample of the countries and the lopsidedness of the Hofstede sample as well as historical change in values over the last three decades. Furthermore, the Schwartz framework is based on individual values that are partly a result of shared culture and to a degree a product of individual experiences while Hofstede assesses culture-level dimensions of cultural variations although they are not observable directly and have to be inferred from diverse cultural expressions, e.g. folktales (Schwartz 1994).

The Schwartz framework has not yet been widely applied in marketing but due to its sound theoretical foundation may have considerable potential for international marketing research. It shows notable advantages compared to the Hofstede framework, which is already well established in marketing research. In a previous study by Schwartz (1992) the similar meanings of the items selected across cultures were verified. Moreover, the Schwartz values are more comprehensive compared to Hofstede's work-related items in terms of the constructs they are intended to measure.

²⁶ The questionnaire is translated from the original language by a bilingual translator, who is a native speaker of the target language. The resulting version is then translated back into the source language and the original and the back-translated questionnaire are compared

Craig, Samuel C. and Susan P. Douglas (2002), *International Marketing Research*. Chichester: John Wiley & Sons Ltd..

²⁷ Multidimensional Scaling is a statistical mean supporting the determination of the perceived relative image of a set of objects

Hair, J.F., R.E. Anderson, R.L. Tatham, and W.C. Black (1998), "Multidimensional Scaling," in *Multivariate Data Analysis*. Englewood Cliffs, NJ: Prentice Hall.

However, the Schwartz items are designed to capture the importance of values at the individual level not at the national culture level (Steenkamp 2001).

Table 3.17 Schwartz Index

Index	Description	Use	Alignment
Conservatism	importance of traditions and participation in/identification with society	assessment of the relative importance of traditions and traditional orders	cultural
Intellectual Autonomy	measure for the degree of self determination	assessment of desired product features	cultural
Affective Autonomy	measure for the importance of hedonism and variety in life among members of society	assessment of desired product features	cultural
Hierarchy	legitimacy of ascribed, hierarchical roles and resource allocation	evaluation of hierarchical orders	cultural
Mastery	intent to actively change and control one's surroundings	assessment of the attitude towards nature and the environment for product decisions	cultural
Egalitarian Commitment	voluntary commitment to support others	evaluation of relationships among society members and the prioritization of other's welfare	cultural
Harmony	acceptance and conservation of the world as it is and a life in harmony with nature	assessment of the importance of nature and the propensity to buy biological and social responsible products	cultural

3.18 The GLOBE Project

GLOBE (Global Leadership and Organizational Behavior Effectiveness) is a worldwide, multiphase project using various methods to investigate the link between societal culture, organizational culture and organizational leadership. The GLOBE study was initiated in 1993 after an intensive research period and the development of a pool of 735 questionnaire items. Nowadays the GLOBE community consists of several principal investigators, basically the founders of project GLOBE, 170 country co-investigators, mostly social scientists, and management scholars from the GLOBE societies, and research associates.

The data collection took place in 62 selected societies, coordinated by native country co-investigators. Respondents were exclusively sampled among middle managers in the two pilot studies. The responses were analyzed using conventional psychometric procedures, e.g. factor analysis or cluster analysis. Nine core cultural dimensions were identified and scales capturing actual practices as well as desired values within

organizations for each of these dimensions were developed. The first six culture dimensions reflect the cultural dimensions identified by Hofstede in the 1970s. Uncertainty Avoidance, capturing a culture's ability to cope with uncertain situations and Power Distance, measuring the acceptance of unequal power distribution among members of society, are actually congruent with Hofstede's definition of the cultural dimensions. Societal Collectivism and In-Group Collectivism originated from Hofstede's Individualism/Collectivism dimension but hold slightly different definitions. The first describes the degree to which "organizational and societal institutional practices encourage and reward collective distribution of resources and collective action" (House et al. 2002, p. 5) while the latter captures the degree to which individuals "express pride, loyalty and cohesiveness in their organizations or families" (House et al. 2002, p. 5). Gender Egalitarianism and Assertiveness reflect the two antipoles of Femininity and Masculinity respectively. Gender Egalitarianism stands for a minimization of gender role differences in society and organizations. Assertiveness expresses the degree to which individuals in society and organizations are "assertive, confrontational and aggressive in social relationships" (House et al. 2002, p.6). The remaining three dimensions are Future Orientation, Performance Orientation and Humane Orientation. Future Orientation reflects the level of individual engagement in society and organization regarding planning, investing in future and renouncing immediate gratification. Performance Orientation captures the degree to which organizations or society "encourages and rewards group members for performance improvement and excellence" (House et al. 2002, p.6). Humane Orientation refers to the encouragement of and reward for individuals in organizations or society for acting fair, altruistic, generous, caring and friendly. The nine resulting variables are further analyzed to detect relationships between culture and leadership theories as well as between culture and various welfare and development measures (House et al. 2002; House et al. 2004).

Although, project GLOBE offers a wide array of different indices only two, namely Performance Orientation and Humane Orientation were selected to illustrate the applicability of GLOBE measures in conjunction with indices capturing various other issues. These two dimensions were included in the data set as they are considered to capture cultural traits diverse from the ones described by the aforementioned cultural frameworks of Hofstede and Schwartz.

The GLOBE project represents a comprehensive collection of various measures capturing cultural traits focusing on leadership types. It focuses prevalently on the interaction between individuals, society and organizations. A major drawback is, as for all cultural frameworks, the limited number of countries included in the project.

Table 3.18 GLOBE project Indices

Index	Description	Use	Alignment
Human Orientation Practices	measure for the relations between family/society members determining family/society life as they are	assessment of the actual rewards for altruistic individuals caring for and helping others (for advertising themes)	cultural
Human Orientation Values	measure for the relations between family/society members determining family/society life as they should be	assessment of the value of rewards for altruistic individuals caring for and helping others (for advertising themes)	cultural
Performance Orientation Practices	measure for the importance of achievements and assertiveness or personal relations and harmony as they are	evaluation of the actual rewards for innovation and performance improvement; assessment of the value of time	cultural
Performance Orientation Values	measure for the importance of achievements and assertiveness or personal relations and harmony as they should be	evaluation of the value of rewards for innovation and performance improvement; assessment of the value of time	cultural

4. Data Set

This chapter will shed light on the selection of indices and will introduce the structure and categorization of the indices forming the data set for subsequent analysis and cluster solution of the countries.

Fundamentally, the indices included are determined on a subjective basis after thorough research and analysis of numerous data sources and their various indices. The final data set selected for further analysis is composed of indices with diverse backgrounds from international organizations operating in different areas. The main aim of the underlying work is the identification of a sound data set providing ample information on various issues within a country. The miscellaneous indices included in the data set should provide sufficient information on political, cultural, social, economic and infrastructural matters to support marketing decisions. Although, the indices discussed here are not an exhaustive list of indicators available on the Internet they are a representative sample for indices that could be used in international market segmentation and market entry. The availability of indices depends on the issue they measure. There is a vast amount of economic indices, for example, while cultural or environmental indices are scarce. The selection of the indices in the underlying thesis should ensure a relatively balanced availability of data on all relevant topics to assess a country's business environment. Moreover, the data set should illustrate the application of carefully selected secondary data in marketing research.

On the one hand side, indices will be classified according to the complexity and the number of different measures influencing the calculation of an index. Some key data provide a straight-forward look at a particular characteristic without offering an insight into the multifaceted situation in a country, the stability of the current government for example. More complex indicators on the other side may provide an ample look at a specific situation in a country taking into account the synergy of different forces. Nevertheless, complex indices often depend on several simple indices. Therefore the composite and simple indices may correlate.

On the other hand side the indices will be grouped into categories according to the type of information they provide (e.g. general, political and economic). However, the classification presented in this chapter is not definitive as some of the indicators would fit into more than one category.

4.1 Simple vs. Composite Indices

In general two types of indices regarding complexity are distinguished in the underlying work, simple and composite indices.

Simple indices are usually calculated rather straightforward resulting in an average value or a percentage capturing the size of a certain feature in a country. GDP/capita for example gauges the average market value of all final goods and services produced in a country within a given year providing information about the size of economy and wealth. Percentages and numbers per 1000 people give an impression about the proportion of the population actually belonging to a group showing a certain characteristic. A comprehensive list of simple indices included in the subsequent data set is given in Table B.9.1.

Composite Indices, on the other hand, assess more complex constructs. A composite index is frequently calculated on the basis of a number of measures describing different forces (e.g. economic, political, and legal) in a country's environment. Basically, the different criteria are rated and an overall score for the phenomenon under investigation is computed. The composite indices integrated in the data set are summarized in Table B.9.2.

4.2 Indices

In the course of this chapter a closer look at the indices selected is provided. However, only indicators that require further explanations due to their complex structure or specific definitions are exhaustively discussed. For a comprehensive compilation of all indices see Appendix B.

4.2.1 Population below Poverty Line

Basically, the percentage of the population falling below the poverty line is calculated by weighting survey results from sub-groups by the number of people in the respective groups. However, the definition of poverty may differ significantly among countries. Generally, rich countries tend to use more generous parameters for poverty than poor countries. Hence, figures regarding the population below the poverty line may not be perfectly comparable (CIA 2008).

4.2.2 Literacy

The standards for literacy are not universally defined. Principally, all rates adhere to the most common definition, namely “the ability to read and write at a specified age”. The age limit employed for the calculations varies decisively among countries. Still, the literacy rate is the most accessible measure for the international evaluation of educational results. Furthermore, the literacy rate may give a hint about the pace of development in a country, as low levels of literacy may hamper the economic and technological progress (CIA 2008).

4.2.3 Gini Index²⁸

The degree of inequality of the distribution of family income in a country is derived from the Lorenz curve. The Lorenz curve plots cumulative family income against the number of families starting with the poorest.

The Gini Index depicts the area between a country’s Lorenz curve and the 45 degree line, which represents the hypothetical line of perfect equality, as a percentage of the total triangular area below the 45 degree line. Therefore, the Gini Index is calculated as follows:

$$\text{Gini Index} = \frac{\text{area below Lorenz Curve}}{\text{total area below line of perfect equality}}$$

As a country’s income distribution approaches equality the Lorenz Curve moves toward the 45 degree line. Consequently, a country with an income distribution close to equality would show a rather low Gini Index. At a perfectly equal distribution the index would equal 0. As inequality of family income distribution augments the Lorenz curve moves farther away from the 45 degree line and the value of the Gini Index increases. In the case of perfect inequality, the Lorenz curve would correspond to the horizontal axis and the right vertical axis and the index would take a value of 100.

²⁸ Information in the following section is taken from: CIA (2008), "The World Factbook," Central Intelligence Agency, URL: <https://www.cia.gov/library/publications/the-world-factbook/index.html>, retrieved April 23, 2008.

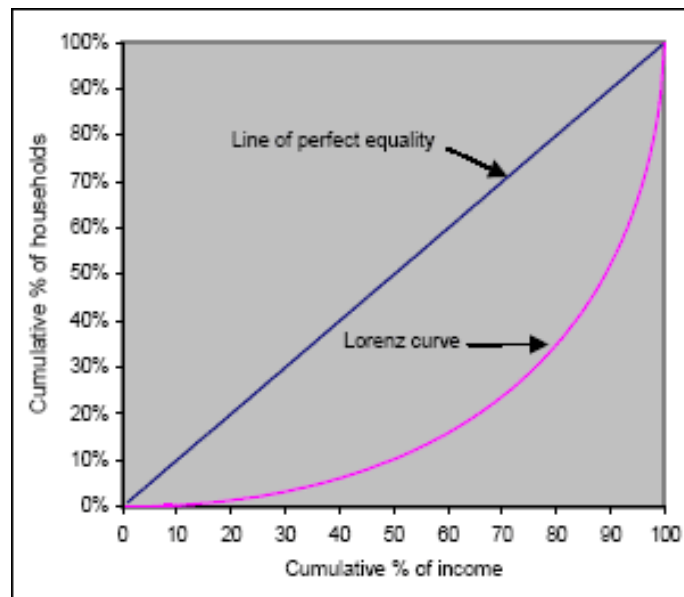


Figure 4.1 Lorenz Curve²⁹

4.2.4 Religion³⁰

This index is divided into several sub-indices representing diverse religious groups. For reasons of feasibility, however, only the five world religions are included in the underlying study: Christianity, Islam, Judaism, Hinduism and Buddhism. Almost all of these five sub-indices comprise a number of large sub-groupings, sharing common beliefs, but varying slightly in habits, traditions and history. Christianity includes Roman Catholicism, Mormonism, Orthodox Christianity with regional forms (e.g. Greek Orthodox, Russian Orthodox, Serbian Orthodox and Ukrainian Orthodox) and Protestant Christianity with variants (e.g. Baptism, Methodism, Jehovah's Witnesses, Anglican Church and Pentecostal Church). Moreover, there are several region- or country-specific religious groups like the Coptic Church in North Africa and the Middle East or the Reykjavik Free Church and the Hafnarfjörður Free Church in Iceland. Muslims are split into two major branches, Sunni and Shia, which differ in the historical understanding of Muhammad's legitimate successor. The first known monotheistic religion Judaism is nowadays divided into three categories of faith depending on the

²⁹ Schwabe, Craig (2004), "Fact Sheet: Poverty in South Africa," Vol. 2008: Southern African Regional Poverty Network, URL: <http://www.sarpn.org.za/documents/d0000990/>, retrieved February 29, 2008.

³⁰ Information in the following section is taken from: CIA (2008), "The World Factbook," Central Intelligence Agency, URL: <https://www.cia.gov/library/publications/the-world-factbook/index.html>, retrieved April 23, 2008.

interpretation of Jewish law: Orthodox, Conservative and Liberal. Hinduism is the only polytheistic belief among the world religions. Hindus worship one or several deities, usually with prayer rituals in their private homes; hence, there are various sub-groups. Buddhism could be seen either as a religion or a philosophy. Theravada Buddhism is predominantly practiced in Southern and Southeastern Asia whereas Mahayana Buddhism, including Zen and Tibetan Buddhism is common in East Asia and Tibet.

However, in several countries, e.g. Albania, Azerbaijan, China, Cuba and Russia, there are only estimations about the nominal affiliation to religions due to the current regime. In Albania religion can only be practiced in private whereas in North Korea only government-sponsored religious groups are tolerated to create the illusion of religious freedom.

If percentages of affiliates are given as a range, e.g. 83% - 88% Roman Catholic in France, an average value is calculated for the analysis. Percentages depicting a specific religion and further small religious groupings of minor importance called “other” are included as if the value is given for the specific religion exclusively, e.g. “Jewish and other” represent 1% of the population in Tunisia. The 1% enters the analysis as the percentage of Jewish in Tunisia to account for their existence. The same approach is employed if one of the world religions is mentioned with another indigenous religion, e.g. the 6% of Shamanists and Christians in Mongolia or the 93% for Buddhists and Taoist in Taiwan are used as percentages for Christians/Buddhists respectively since more accurate numbers are not available. Some sects are only included in the analysis if they are included in the percentage for one of the other religious groupings, e.g. Druze as part of the Muslims in Lebanon. If there are significant differences regarding religious beliefs between distinct parts of a country, e.g. mainland Tanzania and the island Zanzibar, the percentage for the mainland population is used.

4.2.5 Exports/Imports of Goods and Services

Exports of goods and services include the value of all goods and market services provided to the rest of the world. In addition to the value of merchandise they comprise freight, insurance, transport and travel costs as well as royalties, license fees and various services ranging from communication and construction to financial, information, business and government services. Labor and property income as well as transfer payment are excluded (World Bank 2008).

Imports of goods and services account for all goods and services (for definition see above) received by the rest of the world (World Bank 2008).

4.2.6 R&D Spending

All current and capital expenditures on innovative work aimed at the advancement of knowledge and the use of existent knowledge for new applications. R&D comprises basic research, applied research and experimental development (World Bank 2008).

4.2.7 Access to water

This index refers to the percentage of population having access to a reasonable amount of water (at least 20 liters a person a day) from an improved source within one kilometer distance from the dwelling. Household connections, public standpipe, borehole, rainwater collection and protected well or spring are classified as improved water resources whereas vendors, tanker trucks and unprotected wells or springs represent unimproved sources (World Bank 2008).

4.2.8 Energy Use

This index captures the use of primary energy before the transformation to other end-use fuels and can also be expressed as the local production plus imports and stock changes, minus exports and fuels used for international transport (World Bank 2008).

4.2.9 Motor Vehicles

Cars, buses and freight vehicles are classified as motor vehicles. Two-wheelers are excluded from the calculation, which may be a major drawback of this index. Besides the assessment of motorization in a country the number of motor vehicles per 1000 people may give a hint about ecological issues like pollution of the air and the environment (World Bank 2008).

4.2.10 Enforcing Contracts³¹

This index reflects the efficiency of the judicial system regarding the solution of a commercial dispute. It represents the gradual evolution of a commercial sale dispute at local courts and is expressed in number of procedures (number of legal interactions), time or cost (as a percentage of the claim). Time is the unit employed in the underlying thesis and is recorded in calendar days counted from filing the lawsuit until payment.

The essential data is gathered by studying the national codes of civil procedure and court regulations as well as by polling local litigation lawyers and judges. Respondents estimate the average duration of different stages in the dispute resolution including waiting periods for a hypothetical case.

4.2.11 Dealing with Licenses³²

All procedures required for a firm in the construction industry to build a standardized warehouse are captured in the index Dealing with Licenses. The procedures counted range from submitting of project-relevant documents (e.g. building plans, site maps), obtaining all essential clearances, licenses, certificates and permits, completing all obligatory notifications to receiving all compulsory inspections. The procedures to obtain utility connections and to register the property are also included. The process of constructing a warehouse is structured into various distinct procedures and the time and cost for completing each procedure under usual circumstances is computed separately. Generally, the index is provided in three units of measurement, either number of procedures (all interactions between company insiders and external parties), time or cost (percentage of the country's income per capita). Time, the unit chosen for the subsequent analysis, is expressed in calendar days. It reflects the average duration required to complete a procedure in practice presuming that the minimum time spent on one procedure is one day. Furthermore, the hypothetical case assumes that the firm is aware of all building requirements from the beginning and does not waste time, incurring additional costs for accelerating the procedure.

³¹ Information in the following section is taken from: Enforcing Contracts Index (2008),
URL: www.doingbusiness.org/MethodologySurveys/EnforcingContracts.aspx, retrieved May 7, 2008

³² Information in the following section is taken from: Dealing with Licenses Index (2008),
URL: www.doingbusiness.org/MethodologySurveys/DealingLicenses.aspx, May 7, 2008

Information on the topic is collected from experts in construction, e.g. architects, construction lawyers and construction firms, as well as from utility providers and public officials dealing with building regulations. To improve the data comparability across countries several assumptions about the business, the warehouse project and the procedures are made.

4.2.12 Strength of Legal Rights Index³³

The Legal Rights Index is part of the Getting Credit framework of the Doing Business project, which captures the legal rights of borrowers and lenders as well as the sharing of credit information. This particular index measures the extent to which collateral and bankruptcy laws protect the rights of debtors and creditors to facilitate lending. Seven aspects for collateral law and three aspects for bankruptcy law are included: (1) permission of general descriptions for assets in collateral agreements; (2) permission of general descriptions of debt in collateral agreements; (3) capability a legal or natural person to grant or take security in the property; (4) operation of a unified registry including charges over movable property; (5) priority of secured creditors outside of bankruptcy; (6) priority of secured creditors in case of bankruptcy; (7) ability of secured creditors to confiscate collateral in case of reorganization; (8) implementation of reorganization by an administrator not by the management; (9) contractual agreement on out-of-court enforcement by parties; and (10) ability of creditor to seize and sell collateral without restriction by law. For each of the characteristics above covered in national laws a score of one is assigned. Therefore, the Strength of Legal Rights Index may range from 0 to 10 with higher scores standing for well designed bankruptcy laws and expanded access to credit.

The data on legal rights of debtors and creditors is collected with the help of a survey of financial lawyers and validated through a careful analysis of laws and regulations as well as public information sources concerning collateral and bankruptcy law.

³³ Information in the following section is taken from: Strength of Legal Rights Index (2008),
URL: www.doingbusiness.org/ExploreTopics/GettingCredit, May 7, 2008

4.2.13 Rigidity of Employment Index³⁴

The Rigidity of Employment Index measures the regulation of employment and is the average of three sub-indices, which themselves feature several components. Each of the sub-indices takes a value between 0 and 100, with higher values indicating stricter regulations.

The first sub-index *Difficulty of Hiring* captures (1) the maximum cumulative duration of fixed-term contracts, (2) the ratio of the minimum wage for a first-time employee to the average value added per worker and (3) whether fixed-term contracts are disallowed for permanent tasks. The three components are evaluated and scores are assigned to the different characteristics (See Table 4.1).

Table 4.1 Assignment of Difficulty of Hiring Scores

	Characteristic	Score
Maximum Duration	< 3 years	1
	$3 \leq x < 5$ years	0.5
	≥ 5 years	0
Minimum Wage Ratio	≥ 0.75	1
	$0.5 \leq x < 0.75$	0.67
	$0.25 \leq x < 0.5$	0.33
	< 0.25	0
Prohibition Fixed-Term	yes	1
	no	0

To get the value for the *Difficulty of Hiring* index an average of the obtained scores is calculated and scaled to 100.

The second sub-index, *Rigidity of Hours*, consists of five components: (1) whether night work is unrestricted, (2) whether weekend work is unrestricted, (3) whether the workweek can amount up to 5.5 days, (4) whether the workweek can have 50 hours (overtime inclusive) for 2 month a year to respond to seasonal requirements and (5) whether remunerated annual vacation is 21 working days or less. If a question is answered with “no” a score of 1 is assigned, if not a score of 0 is allotted. The sum of the scores is averaged and scaled to 100 to obtain the final *Rigidity of Hours* index.

³⁴ Information in the following section is taken from: Rigidity of Employment Index (2008),
URL: www.doingbusiness.org/MethodologySurveys/EmployingWorkers.aspx

The third sub-index is *Difficulty of Firing*. The eight components making up this particular index are: (1) whether redundancy is disallowed as a motive for firing workers; (2) whether a notification of a third party (e.g. government agency) by the employer is required to terminate one redundant worker; (3) whether the notification of a third party by the employer is mandatory to terminate 25 redundant employees; (4) whether the employer needs the consent of a third party to fire one redundant worker; (5) whether the employer has to ask for approval from a third party to dismiss a group of 25 redundant employees; (6) whether the employer has to consider retraining options or reassignment before firing redundant workers; (7) whether priority rules apply for redundancies and (8) whether priority rules are relevant for reemployment. If the answer to question (1) is “yes” a score of 10 is assigned and all other questions become obsolete. If the reply to question (4) is “yes” a score of 2 is allotted. For all other questions the answer “yes” generates a score of 1 and a score of 0 for “no”. As Question (1) and (4) stand for the most restrictive regulations they have greater weight in the index calculation. The final score represents the *Difficulty of Firing* index, which is again scaled to 100.

Eventually, the Rigidity of Employment index is calculated as the average of the three sub-indices. Values close to 100 are an indicator for a highly regulated employment environment.

The information on the issue of employment is collected through a comprehensive survey completed by local lawyers and public officials. To validate the outcomes employment laws and regulations as well as other secondary sources are assessed.

4.2.14 Registering Property³⁵

All procedures required to transfer a property title in the case a business purchases land or a building from another business are captured in the index Registering Property. The procedures include all steps required by law or necessary in praxis, whether the buyer, the seller or a third party is responsible for the initiation of the procedure. After completing all selected procedures the buyer should be able to use the property for business purposes, as collateral for new loans or sell it to another business. The index is

³⁵ Information in the following section is taken from: Registering Property Index (2008),

URL: www.doingbusiness.org/MethodologySurveys/RegisteringProperty.aspx, retrieved Mai 12, 2008

either expressed in number of procedures (interactions of buyer, seller, their agents or the property with external parties), time (median duration to complete a procedure in calendar days) or cost, which is the unit selected for the subsequent analysis. Basically, cost is recorded as a percentage of property value, which is presumed to be equivalent to 50 times the income per capita. However, only the costs imposed by law are considered, including fees, transfer taxes, stamp duties and other payments to the property registry, notaries, public agencies and lawyers. Costs incurred by the buyer and by the seller are included likewise. If different sources give diverging cost estimates the median reported value is used. Several taxes, like capital gains tax or value added tax, are entirely excluded from the index calculation.

The information about property registration is provided by local property lawyers, notaries and property registries. Several suppositions about the parties to the transaction, the property and the procedures help making the data comparable across countries.

4.2.15 Starting a Business³⁶

All procedures mandatory for an entrepreneur to start up and officially operate an industrial or commercial business are part of the index Starting a Business. Essentially, all steps to obtain obligatory licenses and permits as well as completing required notifications, verifications or inscriptions for the company and employees with relevant authorities are included. The index is available in three different kinds of units: number of procedures (all interactions between company founders with external parties), time and cost (percentage of the country's income per capita). Time, the unit used in the underlying thesis, represents the median duration indicated to finalize a procedure without extra payments accounting for a minimum follow-up with government agencies. The minimum time required for completing a procedure is set at one day. Procedures may take place simultaneously, but as they cannot start on the same day, they are launched on consecutive days. Principally, a procedure is considered concluded when the company has received the final document (e.g. company registration certificate, tax number). The entrepreneur is assumed to be committed to complete all procedures without delay, accelerating the progress by further payments if possible. The

³⁶ Information in the following section is taken from: Starting a Business Index (2008),

URL: www.doingbusiness.org/MethodologySurveys/StartingBusiness.aspx, retrieved Mai 12, 2008

information gathering process is ignored as the entrepreneur is assumed to be aware of the sequence of all entry regulations a priori.

To develop an exhaustive list of necessary procedures laws, regulations and other publicly available information on business entry are studied. In addition time and costs, including minimum capital requirements, going along with each procedure under normal circumstances are recorded. Consequently, local incorporation lawyers and government officials complete and validate the data. Further information on the sequence and the possibility of simultaneous procedures is gathered. All information is supposed to be readily available and corruption is no issue among agencies involved in the start-up process. If answers of local experts differ from written sources inquiries are iterated until the data is reconciled. Various assumptions about the business and the procedures enhance the comparability of the data across countries.

4.2.16 Total Tax Payable³⁷

The index Total Tax Payable captures the tax burden and compulsory contributions of a medium-sized company within a given year as well as the administrative burden in actually paying taxes and contributions. The term “tax” has a broader definition than the traditional understanding. Principally, Doing Business does not account for mandatory, unreturned payments to the government affecting government national accounts but for every impost influencing business accounts. Generally, all taxes and contributions that are imposed by the government on federal, state or local level and have an impact on the income statement of a firm are included. Therefore, the profit or corporate income tax, social contributions and labor taxes paid by the employer, waste collection taxes and vehicle and road taxes as well as property (transfer) taxes, dividend tax, capital gains tax and financial transactions tax are taken into consideration for the index calculation. Consumption taxes, withheld on behalf of the consumer by the company, are included in the calculation as well, although they do not affect the income statement of the firm. However, the compliance with the tax system concerning the withholding of the respective taxes imposes an administrative burden on the company. The index captures the properties of fiscal law concerning tax payments either as the number of payments

³⁷ Information in the following section is taken from: Total Tax Payable Index (2008),

URL: www.doingbusiness.org/MethodologySurveys/PayingTaxes.aspx, retrieved Mai 12, 2008

(captures the number of electronic filings within one year counting frequent tax payments deducted via a third party only once), time (recorded in hours per day considering preparation, filing and payment of major taxes) or as total tax rate. The total tax rate, the unit selected for the subsequent analysis, expresses the sum of taxes and compulsory contributions payable by a business in the second year of operation as a percentage of commercial profits. The total amount of taxes includes all considered taxes and contributions after deductions. All taxes withheld by the company but not paid by the company itself, like personal income tax or value added tax, are excluded. The definition of commercial profit comprises the revenues minus the costs of goods sold, minus gross salaries, provisions, administrative and other expenses, plus capital gains and interest income minus interest expense and commercial depreciation. The commercial depreciation is assumed to follow a straight line with rates of 0% for land, 5 % for buildings, 10% for machinery and business development costs, 20% for office equipment and trucks and 33% for computers.

To gather data for the computation of the index a survey was developed and implemented in cooperation with PricewaterhouseCoopers. The taxes actually imposed on a standardized business and the complexity of a country's tax system are assessed by means of a case study with hypothetical transactions and financial statements within a year. Local experts then conduct the calculations of accumulated taxes based on the fiscal law of the respective country. Additionally, information about bureaucratic requirements, like audits, regularity of filings and other occurring costs, is collected. To guarantee the comparability of data across countries several assumptions about the business, the taxes and the contributions have to be made.

4.2.17 Global Competitiveness Index³⁸

Several factors influencing productivity and competitiveness grouped into nine pillars make up the GCI. The nine categories in 2006 were: institutions, infrastructure, macro economy, health and primary education, higher education and training, market efficiency, technological readiness, business sophistication and innovation. For the GCR 2007-2008 market efficiency was divided into goods market efficiency and labor

³⁸ Information in the following section is taken from: World Economic Forum Competitiveness Reports (2008), URL: www.weforum.org/en/media/publications/CompetitivenessReports/index.htm, retrieved April 17, 2008

market efficiency. Furthermore, financial market sophistication and market size were added. In general the number of factors and pillars shaping the index is open-ended and updated on a yearly basis. The interaction between the factors within the pillars can ensure competitiveness and sustained economic growth. Beyond the comprehensive set of growth factors the GCI accounts for the different stages of economic development in countries around the world. Therefore, the Global Competitiveness Index adopts Michael Porter's definition of stages of development and divides countries into factor-driven, efficiency-driven and innovation-driven societies according to the underlying complexity in the operation of economy. Furthermore, the nine categories are grouped into three sub-indices. The basic requirements sub-index groups all pillars essential for countries in the factor-driven stage (institutions, infrastructure, macro economy, health and primary education). Categories important for countries in the efficiency-driven stage are merged in the efficiency enhancers sub-index: higher education and training, market efficiency (goods market efficiency, labor market efficiency), financial market sophistication, technological readiness and market size. The innovation and sophistication factors sub-index accounts for all pillars critical to countries in the innovation-driven stage (business sophistication, innovation).

The specific weights attributed to the three sub-indexes depend on the stage of development and are derived on the basis of a maximum likelihood regression of GDP/capita against each sub-index for several years.

Table 4.2 GCI (Weighting the pillars)³⁹

Pillar group	Factor-driven stage (%)	Efficiency-driven stage (%)	Innovation-driven stage (%)
Basic requirements	60	40	20
Efficiency enhancers	35	50	50
Innovation and sophistication factors	5	10	30

Countries are assigned to the stages of development based on two criteria: GDP/capita at market exchange rates as a proxy for wages and the share of exports of primary goods

³⁹ Global Competitiveness Report 2007-2008 (2008), Chapter 1.1, URL: www.gcr.weforum.org, retrieved April 15, 2008

in total exports (goods and services) as a proxy for the degree to which a country is factor-driven. Basically, countries exporting more than 70% of primary goods are to a large extent factor-driven.

Table 4.3 GCI (Income thresholds for stages of development)⁴⁰

Stage of Development	GDP per capita (in US\$)
Stage 1: Factor driven	< 2,000
<i>Transition from stage 1 to stage 2</i>	<i>2,000–3,000</i>
Stage 2: Efficiency driven	3,000–9,000
<i>Transition from stage 2 to stage 3</i>	<i>9,000–17,000</i>
Stage 3: Innovation driven	> 17,000

4.2.18 Networked Readiness Index⁴¹

Basically, NRI is based on nine pillars offering information about three distinct dimensions: environment, readiness and usage.

⁴⁰ Global Competitiveness Report 2007-2008 (2008), Chapter 1.1, URL: www.gcr.weforum.org, retrieved April 15, 2008

⁴¹ Information in the following section is taken from: Mia, Irene and Soumitra Dutta (2007), "Information Technology Report 2006-2007," World Economic Forum, URL: <http://www.insead.edu/v1/gitr/wef/main/previous/chapters/GITR2006-2007.pdf>, retrieved April 17, 2008

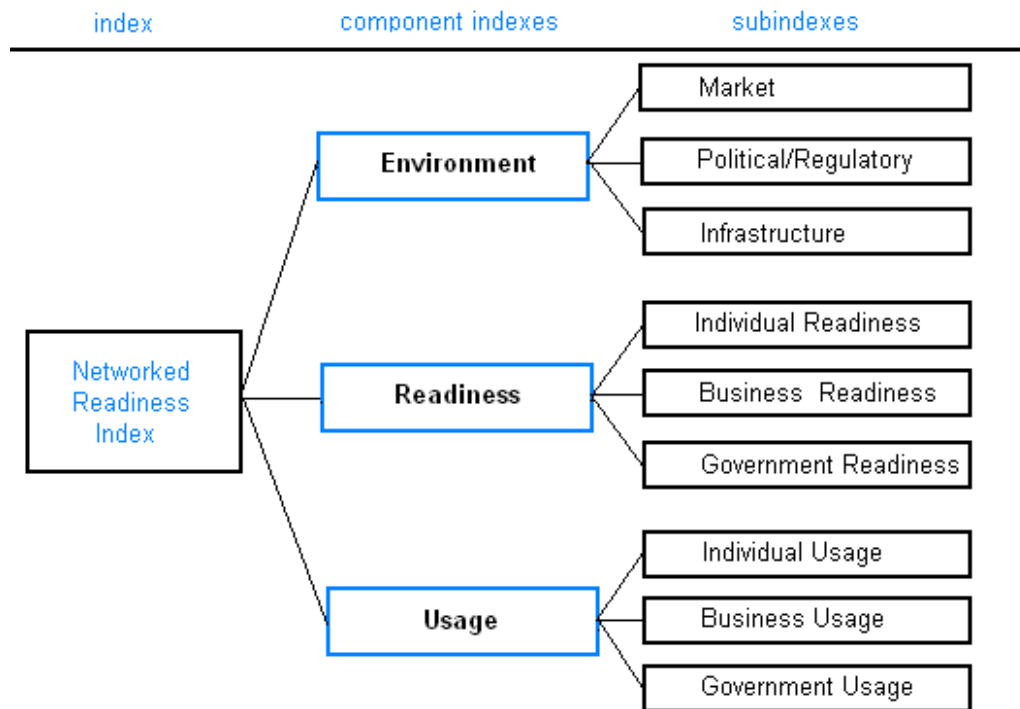


Figure 4.2 Networked Readiness Index Framework⁴²

The sub-index Environment captures the contribution of a country to the development and use of information and telecommunication technologies. The *market environment* pillar depicts the propensity in benefiting from Information and Communications Technology (ICT) development in the general business environment taking into account capital sources, business sophistication, innovation potential, press freedom and local competition. The *regulatory and political environment* describes the general efficiency and fairness of public and legal institutions and the protection of (intellectual) property. The *infrastructure environment* accounts for the availability of ICT- conducive soft infrastructure (tertiary enrollment, quality of scientific research institutions, number of scientists and engineers) and the development of ICT hard infrastructure (number of telephone lines, secure internet servers, electricity production).

The Readiness dimension stands for the capacity of principal agents in a national economy (citizens, businesses and government) to leverage ICT progress. *Individual readiness* portrays the preparedness and capability of individuals in a country to use ICT taking into consideration the existence of appropriate human skills as well as the

⁴² Global Information Technology Report 2007-2008 (2008); Framework,

URL: <http://www.insead.edu/v1/gitr/wef/main/explore/framework.cfm>, retrieved April 17, 2008

affordability of telecommunication and internet. The *business readiness* pillar assesses the ability of companies to incorporate ICT in their business operations taking into account suitably trained labor force, R&D expenditures, R&D collaborations between firms and universities and the affordability of ICT. *Government readiness* examines the promotion of ICT use and penetration by the government and the extent of e-government and e-democracy.

The Usage component looks at the actual degree of ICT use by principal actors (citizens, businesses and government) in a country. As the specific impact of ICT on the key actors is not measurable, the usage dimension mainly indicates potential gains in efficiency and productivity linked to the adoption of ICT. The *individual usage* pillar copes with the ICT penetration in society focusing on telephone, personal computer and Internet penetration. *Business usage* deals with the absorption of technology and innovation in the business sector, the availability of fixed lines and mobile telephones for business and Internet use within firms. The *government usage* pillar measures the extent of ICT introduction and use in government services to enhance government productivity (Mia and Dutta 2006).

The Networked Readiness Index is evaluated on 67 variables grouped in the nine pillars described above. The same weight is assigned to all pillars to derive the three sub-indices environment, readiness and usage. The NRI is an unweighted average of the three sub-indices.

Linking GCI and NRI

One of the nine pillars of the Global Competitiveness Index, namely technological readiness addresses a country's capacity to absorb technological advances from abroad and to leverage ICT. Therefore, countries that are highly competitive on a global scale also show an elevated ability to leverage a networked economy or expressed in other terms, networked readiness is fundamental for global competitiveness. The figure below represents a graphical illustration of the correlation between GCI and NRI referring to Michael Porter's stages of development as discussed above.

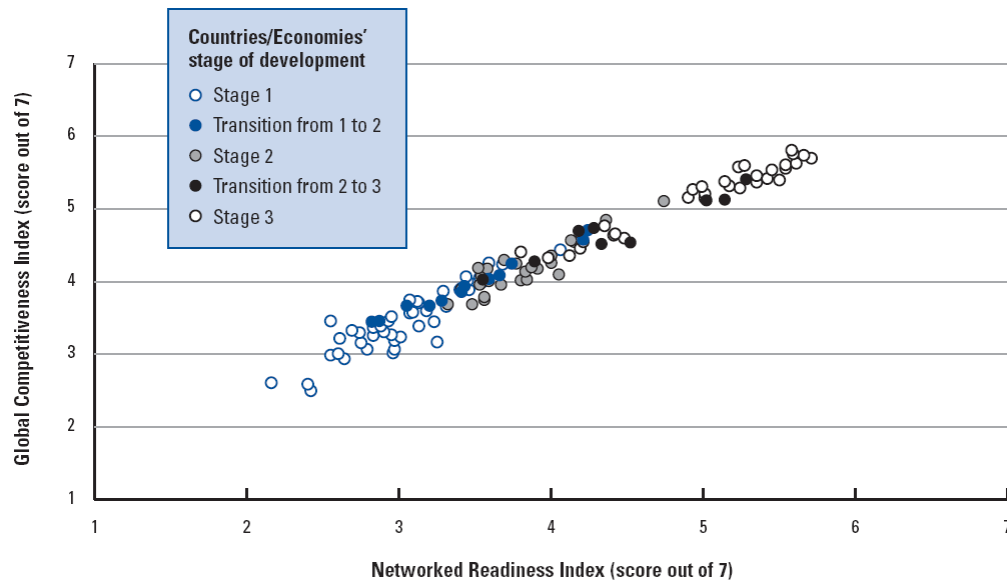


Figure 4.3 The GCI and the NRI for 2006-2007⁴³

4.2.19 Household Expenditure on Recreation and Culture⁴⁴

The index Household Expenditure on Recreation and Culture comprises several expenses concerning leisure time activities. Purchases of technical entertainment equipment like audio-visual, photographic and computer devices, CDs and DVDs, instruments, sports equipment, camper vans, toys, domestic pets and related products, gardening tools and plants, tickets for cultural and sportive events and costs of gambling are included as well as package holidays. All other expenses for restaurants, hotels, journeys and holiday homes are excluded. The index captures the amount of money spent on average for the aforementioned activities and equipment as a percentage of GDP. Usually, Household Expenditure on Recreation and Culture is positively correlated with the income per capita, therefore, in a nutshell, the richer the country the higher the expenses for leisure time activities.

⁴³ Mia, Irene and Soumitra Dutta (2006), Ch. 1.1 Connecting the World to the Networked Economy " (p. 4) in Information Technology Report 2007-2008, , World Economic Forum,
URL: <http://www.insead.edu/v1/gitr/wef/main/previous/chapters/GITR2006-2007.pdf>, retrieved April 17, 2008

⁴⁴ Information in the following section is taken from: OECD. StatExtracts (2008),
URL: <http://stats.oecd.org/WBOS/Index.aspx?DatasetCode=CSP2007>, retrieved April 22, 2008

4.2.20 Internet Selling and Purchasing⁴⁵

The two indices Internet Selling and Internet Purchasing are part of the 15 OECD Key ICT Indicators issued by the Directorate for Science Technology and Industry. The definition of these particular indices differs between countries. The majority of the countries adhere to the OECD definition of Internet commerce, which includes all orders of goods or services placed online but possibly paid and/or delivered offline. However, some of the countries explicitly exclude orders by conventional e-mail, e.g. UK and Ireland, whereas others clearly include orders of this kind, e.g. Canada and Australia. The industries accounted for by the index are prevalently Manufacturing, Construction, Wholesale and Retail, Hotels and Restaurants, Transport Storage and Communication, Real estate, Renting and Business activities as well as other community, social and personal service activities in European Countries. Several countries in Asia, like Korea, take in Agriculture, Forestry, Fishery, Mining and special industrial sectors, e.g. Petrochemicals, Light Industry, and Heavy Industry. In general percentages for the indices are available for each industry specifically or as one single value for Internet selling and purchasing across all industries.

Principally, the values provided for Internet Purchasing and Selling capture the percentage of enterprises with 10 or more employees, which actively engage in online purchases and sales. Various countries only include enterprises of a certain size, like for example Japan (all enterprises with 100 or more employees), Mexico (all enterprises with 50 or more employees), while others consider smaller enterprises than originally required as well, e.g. New Zealand (businesses with 6 or more employees) or Switzerland (enterprises with 5 or more employees).

Due to diverging definitions of included industries and enterprises the values for the index might not always capture the same circumstances for different countries. Nonetheless, for the purpose of this study the value representing Internet use for purchasing and selling across all included industries is used as there is no particular preference for a special industry. Therefore, the two indices provide a good guidance for

⁴⁵ Information in the following section is taken from: OECD Directorate for Science, Technology and Industry – ICT Indicators (2008),
URL: http://www.oecd.org/document/23/0,3343,en_2649_34449_33987543_1_1_1_1,00.html,
retrieved April 22, 2008

the grade of technical adoption in business activities, but should not be used for accurate comparisons.

4.2.21 Gender-related Development Index (GDI)⁴⁶

The Gender-related Development Index was first introduced by the Human Development Report 1995⁴⁷. Fundamentally, it is an development index underlining the status of women, but it does not represent a measure for gender inequality. Like the Human Development Index (HDI) the GDI captures social and economic progress in a single statistic by combining several different indicators. In general, the GDI is based on the calculations of the Human Development Index (HDI) adjusted for gender inequality. Whenever the achievement levels of men or women in a country increase or decrease and therefore, the gender disparity augments, a penalty on inequality is imposed and lowers the GDI value. In simple terms the GDI is the dicounted version of the HDI. Due to close link to the HDI the GDI can only be assessed for the 136 countries and areas the HDI is available for.

Like the HDI, the GDI accounts for development by merging indicators of life expectancy, educational levels and living standards. Principally, a minimum and a maximum value for men and women are defined for each of the three dimensions. The value of the composite index GDI depicts the situation of a country in comparison to these extreme values, ranging between 0 and 1.

⁴⁶ Information in the following section is taken from: Human Development Reports – Statistics on Gender Equality (2008), URL: <http://hdr.undp.org/en/statistics/indices/hdi>, retrieved Mai 5, 2008
http://hdr.undp.org/en/statistics/indices/gdi_gem, retrieved Mai 5, 2008

⁴⁷ Human Development Report 1995 (1995), URL: http://hdr.undp.org/en/media/hdr_1995_en.pdf,
retrieved Mai 5, 2008

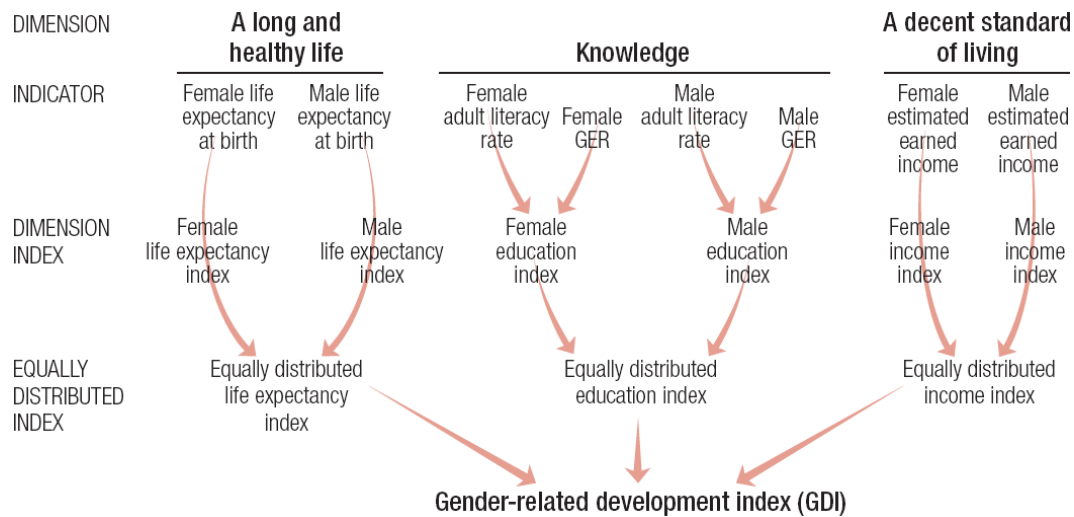


Figure 4.4 Composition of the Gender-related Development Index (GDI)⁴⁸

The life expectancy component is computed by setting 27.5 to 87.5 as minimum and maximum for female life expectancy and 22.5 and 82.5 as the extreme values for male life expectancy to account for the biological fact that women live longer than men independent from the country they live in⁴⁹. To adjust for the gender inequality the actual female life expectancy and the actual male life expectancy in a specific country relative to the previously identified extreme values are calculated and then compared. With $x_{\max}$ and $x_{\min}$ denoting the predefined minimum and maximum values for men and women and y_{fem} and y_{male} capturing the actual life expectancy in a country, z_{fem} and z_{male} , standing for the resulting relative life expectancy, are calculated as follows:

$$z_{\text{male}} = \frac{(y_{\text{male}} - x_{\min_male})}{(x_{\max_male} - x_{\min_male})} \quad z_{\text{fem}} = \frac{(y_{\text{fem}} - x_{\min_fem})}{(x_{\max_fem} - x_{\min_fem})}$$

Consequently, differences in life expectancy can be classified into those actually depending on gender inequality and those resulting from simple biological differences.

The education component of the GDI comprises adult literacy and the combined gross enrolment ratio for primary, secondary and tertiary education. For both indicators the minimum and maximum for women and men are given as 0% and 100%, respectively. A

⁴⁸ Human Development Report 2007/2008 – Technical Note (2008),

URL: http://hdr.undp.org/en/media/hdr_20072008_tech_note_1.pdf; p. 355, Mai 5, 2008

⁴⁹ Human Development Report 1995 (1995), URL: http://hdr.undp.org/en/media/hdr_1995_en.pdf, p.34, retrieved May 5, 2008

weight of two-thirds is assigned to adult literacy and one-third to the combined enrolment ratio.

In the third component living standards are accounted for by income. Basically, a minimum income of \$100 and a maximum income of \$40000 is set for Human Development Index calculation⁵⁰. The Gender-related Development Index further considers the disparity between the income of men and the income of women. While the gaps regarding life expectancy and education have diminished over the last years the differences in income have remained the same or even increased. However, the availability of sensible data accounting for gender gaps in income is limited. The values for the share of earned income for men and women are expressed as a ratio of their corresponding wages and the average national wage multiplying this term by their shares of labor force. The resulting shares of earned income are then divided by the respective population shares for men and women. With I_{fem} and I_{male} standing for the share of earned income, w_{fem} and w_{male} accounting for the corresponding wages, w being an average national wage, l_{fem} and l_{male} denoting the share of labor force and p_{fem} and p_{male} describing the population share the shares of earned income are computed as follows:

$$I_{\text{male}} = \frac{w_{\text{male}}/w}{p_{\text{male}}} * l_{\text{male}} \qquad I_{\text{fem}} = \frac{w_{\text{fem}}/w}{p_{\text{fem}}} * l_{\text{fem}}$$

If there is a considerable difference between men and women concerning the share of earned income average real GDP is discounted to account for gender disparity. However, the income variable represents the earning power of a family member but not the actual distribution and consumption of income in a family.

The overall GDI is then calculated by averaging and summing up the values for the three components:

$$GDI = \frac{1}{3} LifeExpectIndex + \frac{1}{3} EducationIndex + \frac{1}{3} IncomeIndex$$

⁵⁰ Human Development Index (2008), URL: <http://hdr.undp.org/en/statistics/indices/hdi>, retrieved Mai 5, 2008

Nonetheless, the GDI is a useful measure for human development with respect to gender equality, it is not really appropriate to monitor human development in the short-term as life expectancy and education standards only change in the long run. The introduction of variables capturing short-term changes, e.g. employment rate, or describing country-specific development issues would enhance the surveillance of changes in gender-related development but would also reduce the comparability of the index across countries.

4.2.22 The Bertelsmann Transformation Index (BTI)⁵¹

The direct confrontation of successful and failed transformation strategies identifies the actual democratic progress and the effectiveness of political actions in a country, eventually expressed in the BTI. Therefore, the Bertelsmann Transformation Index measures the political and economic progress of a country as well as initiatives by politicians directed towards democracy and market economy. However, the term “democracy” does not only denote the common understanding of democratic issues, like civil liberty and fair elections, but also includes constitutional legality and the representativeness of national politics.

52 questions assigned to 17 different criteria should help in assessing the development of a country in three different categories, namely democracy, free market economy and political management. Basically, the Bertelsmann Transformation Index is assessed via two other indicators: the Status Index and the Management Index. The Status Index captures the status quo of a country on its way towards a solid democracy and market economy. The Management Index represents the quality of political actions and the ability of decision makers to guide the country in its development process. The last two years are used for the calculation of the Management Index.

The Bertelsmann Transformation Index describes the overall advancement of democracy and economy, whereas Status Index and Management Index depict specific issues. For that reason not only the overall index BTI but also two of the sub-indices are considered for subsequent analysis: the Status Index on Political Transformation and the

⁵¹ Information in the following section is taken from: Bertelsmann Transformation Index (2008),
URL: www.bertelsmann-transformation-index.de/fileadmin/pdf/BTI_2006_Ranking_GB.pdf, retrieved
April 18, 2008

Management Index. Both of these indicators are considered particularly important for considerations on market entry and the assessment of political risks in a country. The values of all indices range between 0 and 10, the higher the score the better is a country's performance regarding transformation management.

4.2.23 Status Index⁵²

As mentioned above the Status Index is the numerical representation of the current stage of transformation a country is in. Two dimensions, *Political Transformation* and *Transformation toward a free Market Economy* are averaged to build the Status Index. The values for the political and the economic transformation are derived by evaluating seven economic criteria (deduced from 14 single indicators) and five political criteria (measured by 18 indicators).

The seven criteria employed to gauge the transformation towards a free market economy comprise: (1) socioeconomic development, (2) market regulations, (3) monetary and price stability, (4) private property, (5) welfare regime, (6) competitiveness of the national economy and (6) sustainability. All of these issues should ensure an enduring change to a well-established democracy and competitive market environment. However, the indicator capturing the progress towards a free market economy is only included as part of the overall Bertelsmann Transformation Index in the subsequent analysis, but will not be applied separately. Although this particular index captures chief issues concerning economics and socioeconomics it is not used on its own, as most issues are also accounted for by other economic and social as well as several legal indices.

Political Transformation Index

The Political Transformation Index, on the other hand side, is considered rather influential on market entry decisions as political stability and the validity of existing law may decisively influence entry decisions of firms. Information on political environment and development is rarely expressed in quantitative terms; thus, this particular political

⁵² Information in the following section is taken from: Bertelsmann Transformation Index (2008),
URL: www.bertelsmann-transformation-index.de/fileadmin/pdf/BTI_2006_Ranking_GB.pdf, retrieved
April 18, 2008

index provides interesting insights for the purposes of the subsequent study. The value for the Political Transformation Index is derived by averaging the ratings on (1) condition of the state, (2) political participation, (3) constitutional legality, (4) stability of democratic organizations and (5) integration on the political and social level.

4.2.24 Management Index⁵³

The unique feature of the Bertelsmann Transformation Index is the focus on the implementation and management of transformation processes. The index evaluates the activities of policy makers with respect to transformation strategies. As the consistency of political actions, the efficient use of resources and the cooperation with neighboring states is indispensable. The Management Index is worldwide the only index evaluating the ability of politicians to manage transformation successfully. The data for the Management Index is collected by the Bertelsmann Stiftung itself and is considered a major part of the BTI analysis.

Fundamentally, the Management Index is calculated by multiplying the value for the success of political management by a factor capturing the level of difficulty regarding the general conditions in a country. Successful Transformation Management is assessed by rating and averaging (1) the creativity guiding the transformation procedure, (2) the efficient use of resources, (3) the ability to find solutions and (4) international cooperation. The degree of difficulty to actually boost the transformation process is computed by merging six indicators: (1) the structural framework, (2) societal traditions, (3) intensity of sociopolitical conflicts, (4) the average level of education, (4) the economic performance and (5) the institutional functionality.

Consequently, the Management Index not only accounts for the status quo of political initiatives and transformation processes, but also captures the ability of the politicians to successfully guide their country towards a sustainable democracy and market economy and therefore, leads to estimation about future developments. This outlook may help companies in their decision to enter a market and set up operations.

⁵³ Information in the following section is taken from: Bertelsmann Transformation Index (2008),
URL: www.bertelsmann-transformation-index.de/fileadmin/pdf/BTI_2006_Ranking_GB.pdf, retrieved
April 18, 2008

4.2.25 KoF Index of Globalization⁵⁴

The Globalization Index merges the three key dimensions of globalization: economic, social and political globalization. In total 23 variables, aggregated into three sub-indices, are used to measure the most important aspects of globalization.

The dimension of economic globalization is captured by long distance flows of goods, capital and services and information on and perceptions of market exchanges. Two indices are constructed to measure the traits of economic globalization. One index captures actual flows, like trade, foreign direct and portfolio investment, as a percentage of GDP. Furthermore, remunerations to foreign nationals and foreign capital employed, expressed as a percentage of GDP, are included to proxy the degree of foreign human resources and capital employment in the production processes of a country. The second index gauges the restrictions on trade and capital using hidden import barriers, taxes on international trade, captured as a percentage of current revenues, and a special index of capital controls. Political globalization is characterized by a dissemination of government policies and is measured by taking the number of embassies in a country, the number of international organizations a country is a member of and the number of UN peace missions a country participated in. Social globalization is the aspect of globalization most difficult to capture. Basically, social globalization stands for the spread of ideas, information, images and the interaction of people from different countries and cultures. Three indices are used to account for the construct of social globalization. First, *personal contacts* are gauged using amongst others international tourism, international telephone traffic, foreign population in percent of total population and average costs for phone calls to the USA as proxies. Secondly, telephone mainlines, cable television, daily newsletters and radios per 1000 people as well as Internet hosts per capita and Internet users as a share of population are used to capture the facet of *information flows*. Thirdly, *cultural proximity* is measured by the McDonald restaurants per capita, the trade of books in percentage of GDP and the number of IKEA stores per country. There would be several more adequate proxies to measure the cultural proximity like the number of English songs in the national hit list or the number of

⁵⁴ Information in the following section is taken from: KoF Index of Globalization (2008),

URL: <http://globalization.kof.ethz.ch>, retrieved May 5, 2008

Hollywood movies shown in national cinemas, however, information on these aspects is scarce in most countries.

For the calculation all of the indices are transformed to range between a minimum value of 0 and a maximum value of 100. The three sub-indices economic, political and social globalization are computed using principal components analysis to group the variables and assign the respective weights. The year 2000 is used as the base year for the computation of the weights. The same approach is applied to merge the three sub-indices into the overall index of globalization. Economic globalization enters the calculation of the overall index with approximately 35%, political globalization with 25% and social globalization with a rounded weight of 38%. The overall index is reported to be missing if more than one third of the data is not available. The final Index of Globalization ranges between 0 and a 100, with values closer to 100 indicating a higher level of globalization (Dreher 2006).

Although, the KoF Index of Globalization represents a sound quantitative measure for an aspect which is actually hard to quantify, social globalization in particular is predominantly seen as a spread of English language and American culture, not as an interaction and convergence of different cultures. Consequently, one should be aware of the use of “Americanization” as a proxy for globalization in general when looking at this specific index.

4.2.26 Press Freedom⁵⁵

23 questions divided into three large categories are employed to assess the level of press freedom in a country. The legal environment assesses the laws and regulations regarding media content and broadcasting as well as the government’s ability to use these legal institutions to limit the media’s activities. Legal regulations reassuring the freedom of expression are included in the examination as well as negative aspects of security legislation, diverse criminal statutes and penalties for libel and defamation. Moreover, the independence of legal and official media regulatory bodies and the registration requirements for journalists are investigated thoroughly. The political environment captures the extent of political control over the content of news media. The

⁵⁵ Information in the following section is taken from: Press Freedom Index (2005),

URL: www.freedomhouse.org/template.cfm?page=204&year=2005, retrieved May 5, 2008

independent news coverage of state-owned and privately-owned media as well as the degree of censorship, the access of information sources and the possibility of free commentatorship are scrutinized. Methods of intimidation used by the state towards journalists are also included in the evaluation. Last but not least the economic environment takes a look at the structure of the media landscape, the transparency and concentration of media ownership, the costs of creating a media network and the expenses for the production and distribution of media contributions. Additionally, the selective allocation of governmental subsidies, the influence of corruption and bribery on the content and the dependency of media development on the economic situation is included.

For each of the 23 methodology questions a low score is assigned for a rather unrestricted media environment whereas a high rating stands for an extremely regulated situation. The questions are fairly distinctive to capture several different ways in which pressure can be placed on the media and media representatives. The score on the questions are added up within one of the three categories they are assigned to. The final score on press freedom is derived by adding up the scores for the legal, political and economic environment. Countries with an overall score between 0 and 30 are classified as “free”, countries between 31 and 60 points are seen as “partly free” and ratings between 61 and 100 indicate a very restrictive media environment, labeled as “not free”.

The index Freedom of the Press does only account for the interventions and restrictions of the government to control the media and the information flow, but it does not assess the degree to which the media reflects an high ethical standard and responsibility in a country although ethical standards of the media often are used as an argument for the restriction of information flows.

4.2.27 Corruption Perception Index⁵⁶

Twelve different data sources are used to compute the Corruption Perceptions Index (CPI) 2006 for 180 countries. Generally, all countries which are ranked in at least three sources are considered in the index. This basic requirement should balance out the

⁵⁶ Information in the following section is taken from: Corruption Perception Index (2006),

URL: http://www.transparency.org/policy_research/surveys_indices/cpi/2006, retrieved May 5, 2008

potential non-performance of one of the sources to guarantee the correct assessment of the level of perceived corruption.

The sources have to provide rankings of the investigated countries to be included in the calculation of the CPI. The ranks are the only information used for the index calculation; the country scores do not influence the computation procedure. Since the scaling systems employed differ among the sources, the data has to be standardized before determining a country's mean value. Old sources have already been standardized in earlier years. For the standardization of new sources a master list, usually the CPI of the previous year, is determined. Countries have to appear in the new source as well as in the master list; countries listed in only one of the two lists are excluded. In the next step the largest value in the master list is assumed to be the standardized value for the country ranked highest by the new source, the second-largest value is assigned to the country ranked second and so on. Although, this standardization technique causes the loss of information provided by the sources as only the ranking and not the scoring of the new source are processed, it is able to keep the resulting values in the desired range between 0 and 10. However, a country has to score highest in every source to repeat the score from the previous year. If it scored lower in one of the sources its standardized mean value would be lower than the score from the year before. To prevent the deterioration of scores over time beta-transformation is applied. In fact every value x is transformed according to the following formula:

$$10 \times \int_0^1 \left(\frac{x}{10} \right)^{\alpha-1} \left(\frac{x-1}{10} \right)^{\beta-1} dx$$

The parameters α and β have to be determined in a way that the resulting values for the overall index equal the values of the master list for the countries included. The beta-transformation is applied to all standardized values and then the mean is computed by taking all the standardized, transformed values of the old and the new sources to obtain the overall index with values ranging between 0 and 10. The higher the value for the overall index the lower is the level of perceived corruption.

4.2.28 Failed States Index⁵⁷

The calculation of the Failed States Index is accomplished in five steps and relies mostly on the Conflict Assessment Tool (CAST) of the Fund for Peace. Principally, CAST is used to assess the risk of state failure and violent national conflicts. The risk calculation is based on the evaluation of numerous articles and reports from over 12.000 sources processed and analyzed by the CAST Software.

Relevant data on conflict zones and events in a country is gathered and ordered chronologically in the *first step*. The key dates are identified for the following Trend Point Assessment.

In the *second step* twelve selected indicators grouped in three sub-categories (social, economic and political) are rated on a scale from 0 to 10 for each country, with 0 indicating low intensity and 10 standing for high intensity. The social indices measure mounting demographic pressures, massive movements of refugees creating humanitarian emergencies, legacy of vengeance-seeking groups or group paranoia and sustained human flight. Economic indicators capture uneven economic development along group lines and abrupt economic decline. Last but not least political variables account for the delegitimization of the state, crucial deterioration of public services, arbitrary use of law and violations of human rights, misuse of power by the security apparatus, rise of factionalized elites and the intervention of other states. The ratings for the twelve indicators are summed up to get the total rating expressed in trend points in a timeline for each country.

⁵⁷ Information in the following section is taken from: Failed States Index,

URL: http://www.fundforpeace.org/web/index.php?option=com_content&task=view&id=229&Itemid=366, retrieved May 5, 2008

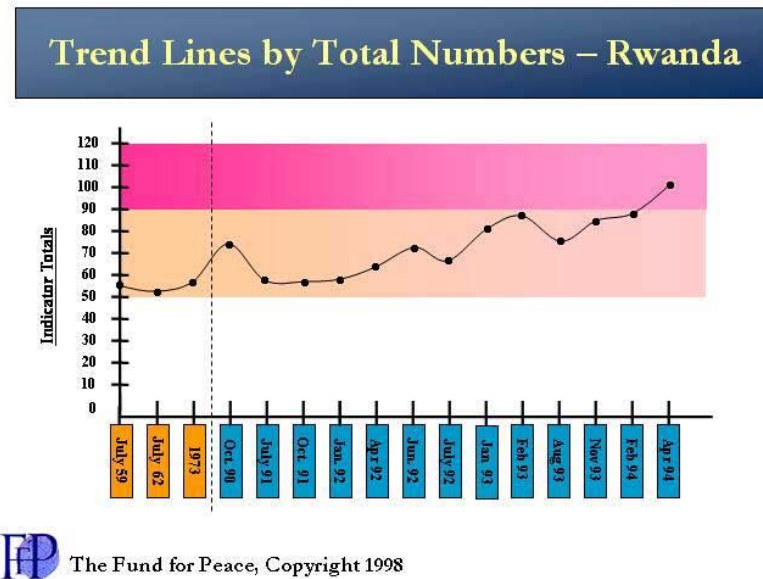


Figure 4.5 Illustration of trend line for the Failed States Index⁵⁸

The *third step* assesses the ability of a country's core institutions to cope with the current situation. The core five for sustainable stability are defined as a capable domestic police, an efficient civil service or bureaucracy, an independent judicial system working according to the rule of law, a military accountable to a legitimate government and a strong executive/legislative force capable of national leadership.

In the *fourth step* unexpected factors accelerating or decelerating conflict escalation are identified employing the STINGS framework. STINGS is an acronym for surprises (e.g. currency collapse), triggers (e.g. assassinations, coup d'état), idiosyncrasies, (e.g. non-coherent territory), national temperaments (e.g. cultural or religious motivations) and spoilers (e.g. displeased followers, expelled parties).

Eventually, in the *fifth step* the Failed States Index is calculated using the country assessment of the previous steps and including the specific investment risk factor in a country. All countries with risk ratings above 90 are in acute danger for violent conflicts. Countries with ratings exceeding 60 bear an elevated disposition to solve conflicts using violence. Countries with scores ranging between 30 and 59 bear a

⁵⁸ Fund for Peace - Calculation Of Failed States Index using CAST (2008),

URL: http://www.fundforpeace.org/web/index.php?option=com_content&task=view&id=107&Itemid=145, retrieved May 5, 2008

moderate risk for violent outbreaks and countries with ratings below 30 are characterized by sustainable security.

Conflict maps are created to visualize the probability of a conflict to turn violent. The total risk ratings enter the graph as trend points.

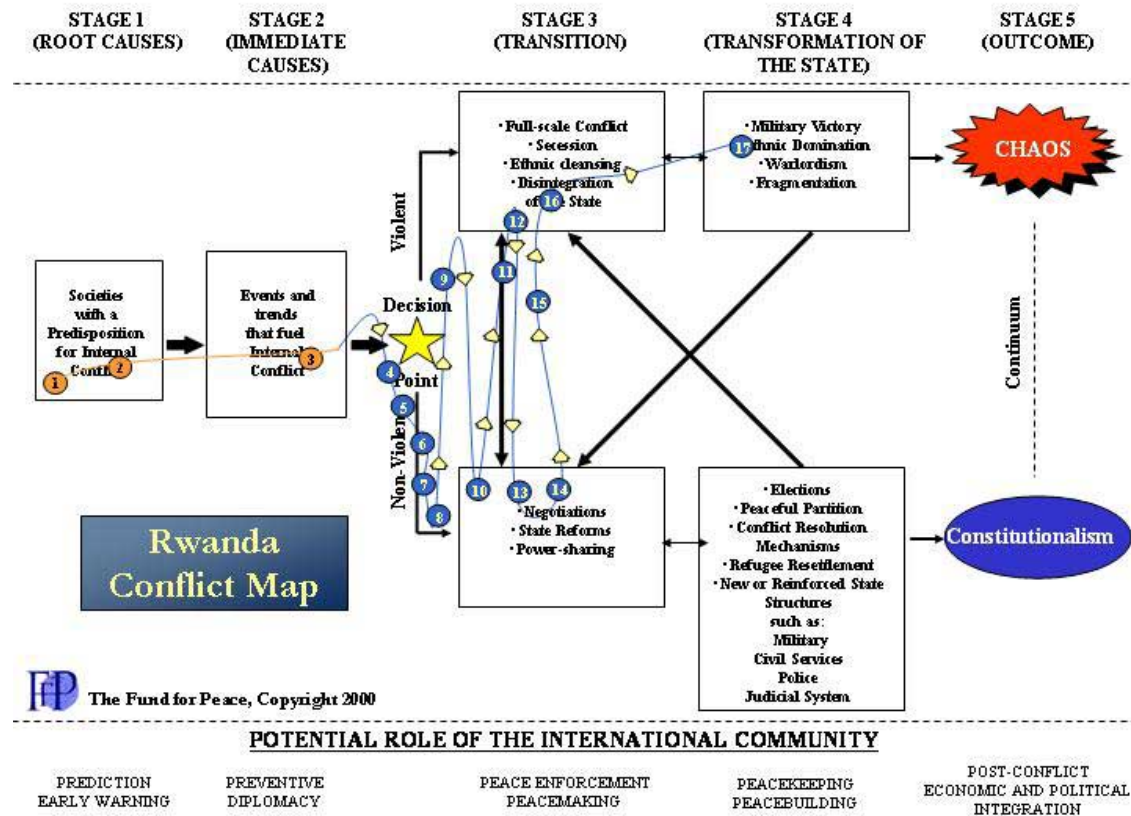


Figure 4.6 Conflict map for the CAST assessment of failed states⁵⁹

4.2.29 Ecological Footprint⁶⁰

The Ecological Footprint gauges the demand of human beings on the biosphere measured in terms of the area of biologically reproductive land and sea needed to supply the necessary resources and to absorb the waste produced. Most frequently the Ecological Footprint is expressed in global hectares per capita.

⁵⁹ Fund for Peace - Calculation Of Failed States Index using CAST,

URL: http://www.fundforpeace.org/web/index.php?option=com_content&task=view&id=107&Itemid=145; retrieved May 5, 2008

⁶⁰ Information in the following section is taken from: WWF (2006), "Living Planet Report 2006" (pp. 14),

URL: www.panda.org/news_facts/publications/living_planet_report/lp_2006/index.cfm, May 18, 2008

Generally, the footprint of a country comprises all cropland, grazing land, forests and fishing grounds to produce food, fibre and timber as well as to provide the space for infrastructure and to absorb the waste of energy generation for that country. The Ecological Footprint is split in seven components to account for the diverse impacts humanity has on the ecological system: (1) built-up land for infrastructure, (2) nuclear energy, (3) CO₂ from fossil fuels, the largest growing component in the last 50 years, (4) fishing grounds, (5) forests, (6) grazing land and (7) cropland. The Ecological Footprint is determined by a country's population and the consumption of resources by an average resident. The consumption of fossil fuels is estimated by taking the area required for the absorption of CO₂ generated by the combustion of fossil fuels. The impact of nuclear power is expressed in the footprint that would have been created to produce the same amount of energy by burning fossil fuels.

Nowadays, people consume resources from all over the world, therefore the sum of the areas adds up to their footprint. Countries with an ecological deficit, requiring more resources than production area available, may maintain their consumption level by either boosting the productivity of their resources or by importing from other countries.

Since the 1980 the Ecological Footprint exceeds the Earth's biocapacity. Biocapacity is the total amount of biologically productive area that is available to meet the human demand. If the Ecological Footprint is larger than the biocapacity the Earth's regenerative capacity can no longer keep up with the consumption of resources. Figure 4.7 below portrays National Footprints as a percentage of the global Ecological Footprint indicated by the country size while per capita Ecological Footprint in a country is depicted by the colours of the countries. Countries with extraordinary high Ecological Footprint are shown in red.

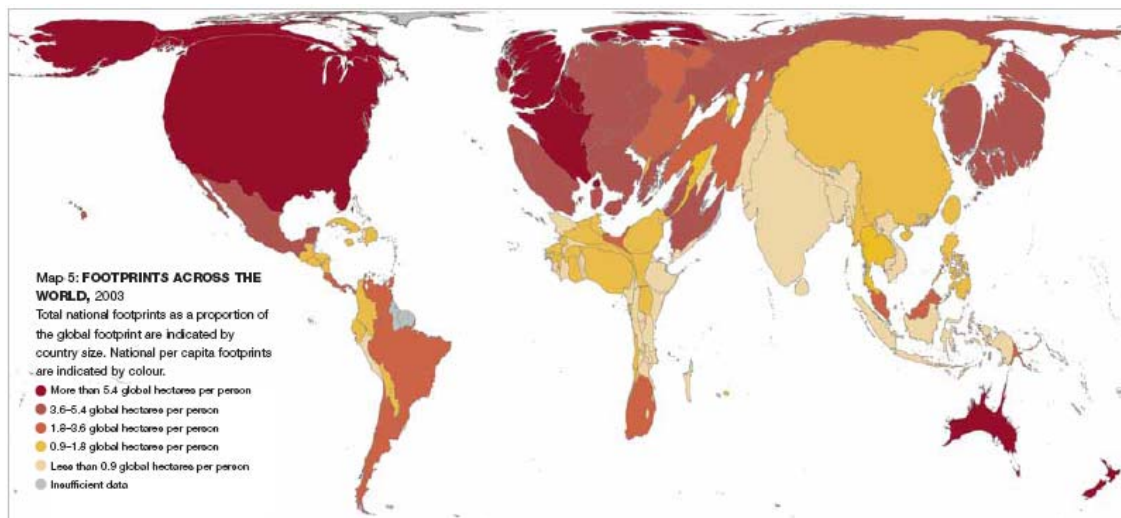


Figure 4.7 Ecological Footprints across the World⁶¹

4.2.30 Wildness

The index Wildness captures the percentage of total land including inland waters with very low anthropogenic impact. Low impact is defined by a “wildness”-score of 9 or less on the 58-point scale of the Human Influence Index (HII) of CIESIN. The Human Influence Index measures anthropogenic impact of land according to human land use, human access to railways, roads, major rivers and electricity. Population density is a further aspect included in the scale to assess human impact in a region. All areas with a total score lower than 9 points is considered in the calculation of the index Wildness and are expressed as a percentage of total area of a country. Agriculture and infrastructure have a high impact on the nature in a country. Therefore, the level of anthropogenic impact provides information about population density, urban agglomerations and the intensity of land use (Esty et al. 2005, p.267).

4.2.31 Hofstede Values⁶²

Hofstede identified the four cultural dimensions of Power Distance, Uncertainty Avoidance, Individualism/Collectivism and Masculinity/Femininity in his analysis of

⁶¹ WWF (2006), “Living Planet Report 2006” (p. 26),

URL: www.panda.org/news_facts/publications/living_planet_report/lp_2006/index.cfm, May 18, 2008

⁶² Information in the following section is taken from: Hofstede, Gert H. (2001), *Culture's Consequences: Comparing values, behaviors, institutions, and organizations across nations*. Thousand Oaks, California: Sage Publications.

the IBM employee attitude survey. The fifth dimension long-term versus short-term orientation was added in a later survey. The cultural dimensions mainly reflect work-oriented values.

Power Distance

Power Distance may be defined as “the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally” (Hofstede 2001, p. 98). Fundamentally, power distance captures interpersonal power or inequality as perceived by the less powerful. Inequality may manifest itself in a number of different ways: (1) in physical and mental characteristics as a fact of human existence, (2) in social status and prestige, (3) in wealth and/or power and in (4) laws, rights and rules (privileges). Inequality is a fundamental fact in every society; however, some societies are more unequal than others. The exercise of power and the level of inequality strongly depend on the values and norms that are inherent in a country’s culture. The mental programming regarding equality/inequality takes place in the early childhood. The importance of obedience and respect for elders within the family and in school shapes unequal relationships like the boss-subordinate relationship in future life (Hofstede 2001).

Hofstede’s Power Distance index accounts for the need of dependency versus the striving for independency. In countries scoring low on Power Distance inequality is perceived to be a necessary evil that should be minimized whereas inequality in countries with a high power distance rating is considered the foundation for social order. Privileges for supervisors are normal in high Power Distance countries and visible signs of status enhance the authority of superiors. Generally, less legitimisation for the use of power is required in high Power Distance countries (Hofstede 2001).

The index was drawn from three questions dealing with the superior-subordinate relationship and desired decision-making styles.

Uncertainty Avoidance

Uncertainty Avoidance may be described as “the extent to which members of a culture feel threatened by uncertain or unknown situations” (Hofstede 2001, p. 161). Uncertainty about future is a given fact in life which should be minimized by technology, law and religion. Technology includes all man-made instruments to cope

with uncertainties caused by nature. Law includes all formal and informal rules guiding social behaviour and religion helps to accept the uncertainties that are not manipulable by human actions postulating the absolute truth. The way societies deal with uncertainty depends on cultural heritages transferred and enforced through education and state (Hofstede 2001).

Basically, the Uncertainty Avoidance Index indicates how comfortable members of a culture feel in unstructured, surprising or unusual situations. High Uncertainty Avoidance societies try to reduce the probability of such a situation by introducing a number of strict rules and safety regulations. An elevated level of anxiety leads to more stress and a hurried social life but also to a drive to be busy. Things unknown and foreign are considered dangerous and the showing of emotions serves to release accumulated anxiety. Countries with low Uncertainty Avoidance cope with anxiety through passive relaxations and emotions are expected to be controlled. Low Uncertainty Avoidance cultures demonstrate more tolerance of diversity and more openness to change and new ideas. Gender roles within families are more likely to deviate from traditional roles in countries scoring low on Uncertainty Avoidance. Fundamentally, high Uncertainty Avoidance cultures prefer clarity, structure and purity whereas low uncertainty avoidance societies are comfortable with ambiguity, novelty and convenience (Hofstede 2001).

The index of Uncertainty Avoidance was derived from countries mean scores on three items dealing with rule orientation, employment stability and stress.

Individualism/Collectivism

Individualism stands for “a society in which the ties between individuals are loose” (Hofstede 2001, p. 225) whereas Collectivism⁶³ represents “a society in which people from birth onwards are integrated into strong cohesive in-groups [...]” (Hofstede 2001, p. 225). Fundamentally, societies differ considerably on the relationship between the individual and society. In individualistic societies the individual itself and the immediate family is important whereas in collectivist cultures the focus is on unquestioning lifetime loyalty towards one’s in-group (Hofstede 2001).

⁶³ The word “collectivism” in this sense has no political meaning whatsoever as it refers to the group and not to the state.

In countries scoring high on Individualism people mainly live together in nuclear families consisting of parents and one or more children. The individual is considered to be the smallest unit in society and therefore the interests of the individual prevail over the interests of the group. Speaking one's mind, expressing own opinions and coping with conflicts are essential for social life in individualistic cultures. In collectivist societies people grow up in extended families including grandparents, uncles, aunts, cousins and others apart from the nuclear family. The family is the smallest unit in collectivist cultures and the most imperative issue is an individual's loyalty towards its in-group including ritual and financial obligations to the family. Harmony with the social environment is considered a virtue while direct confrontations are judged rude and unwanted. Due to the loyalty towards one's in-group an employee in a company always acts as a member of his/her in-group although this might not always reflect the interest of the employee himself/herself. Friendships play no major role in countries scoring high on Collectivism as friends are determined by one's in-group. Consumption habits and product purchases are predominantly influenced by members of the in-group. In individualistic societies on the contrary friendships are the prevalent relationship type and have to be thoroughly fostered. However, the main source of information regarding products, innovations and consumption habits are still advertisements and the media. In business life people are expected to make rational decisions on their own coordinating their self-interest and the employer's interest (Hofstede 2001).

Masculinity/Femininity

Masculinity describes "a society in which social gender roles are clearly distinct" (Hofstede 2001, p. 297) while femininity represents "a society in which social gender roles overlap" (Hofstede 2001, p. 297). Therefore, masculinity promotes an assertive, tough role model focused on material success for men and a modest, tender role model concerned about quality of life for women. Femininity on the contrary upholds a modest and tender role model focusing on the quality of life for both, women and men. The issue in the context of Masculinity/Femininity is what implications gender has on social roles and values. Women usually emphasize goals like relationships and supporting others whereas men focus on so-called ego goals including career and money. The importance attached to feminine compared to masculine work goals differs remarkably among cultures and occupations. In countries scoring high on masculinity the gap between men's and women's values regarding the same job is considerable. The gender

role socialization, responsible for different value sets of men and women, takes place prevalently in the family due to traditional role differences between boys and girls.

In general, in countries ranking high on Masculinity both men and women adhere to values, considered rather masculine like ambition and competitiveness, although the ambition of women may be directed towards achievements of male loved ones. Competitive sports, awards and public praise are quite popular to enhance one's reputation. In feminine cultures both genders hold fairly tender, "feminine" values like compassion and modesty. Strong, successful characters are admired in masculine societies while in feminine cultures sympathy for underdogs is valued. In masculine countries the attractiveness of a job is determined by remuneration, security and job content. Feminine countries stress relationships, physical conditions and mutual solidarity. In countries scoring high on femininity most buying decisions are shared between family partners. Owning foreign goods, however, is considered to be a way to show off and is therefore rather attributed to "masculine" consumption behaviour.

Long-Term versus Short-Term Orientation

Long-Term Orientation stands for "fostering of virtues oriented towards future rewards, in particular, perseverance and thrift" (Hofstede 2001, p. 359). Its counterpart Short-Term Orientation represents "fostering of virtues related to the past and present, in particular, respect for tradition, preservation of face and fulfilling social obligations" (Hofstede 2001, p. 359). Long-term orientation, hence, pools the future-oriented items of persistence, observance of the order of relationships according to status, thrift and a sense of shame. Short-Term Orientation on the other hand side values the past- and present-oriented items of personal steadiness and stability, protection of "face", respect for tradition and reciprocation of favours and gifts. Both directions of orientation contain Confucian values, emphasizing virtue rather than absolute truth (Hofstede 2001).

In countries scoring high on Long-Term Orientation families tend to keep to themselves and marriage as well as family life is mainly considered a pragmatic arrangement based on affection, especially towards small children. Education focuses on thrift, tenacity in the pursuit of goals and humility. Businesses in countries with high Long-Term Orientation focus on the establishment of a strong position within their markets and the strategic use of resources without expecting immediate results. In short-term oriented

countries immediate need gratification, spending and sensitivity to social trends in consumption as well as enjoying leisure time shape the cultural environment. On the other hand side a tradition, face-saving, social codes of family life and respect for others have to be a crucial part of life in a short term oriented country. Managers in countries scoring high on Short-Term Orientation are judged by control systems and current successes or failures even though they might be results of decisions of the manager's predecessor (Hofstede 2001).

4.2.32 Schwartz Values

The analysis of Schwartz results in three dimensions further subdivided into seven cultural domains, namely conservatism, intellectual autonomy, affective autonomy, hierarchy, egalitarian commitment, mastery, and harmony (Schwartz 1994).

Conservatism

This culture-level value type comprises predominantly values that play an important role in societies shaped by harmonious relations. The interest of the person and the interests of the groups are assumed to be congruent. The significance of a person derives from his/her participation in and identification with society. Modesty and harmonious interpersonal relations are favored. The avoidance of individual actions disturbing the traditional order or activities jeopardizing the status quo is emphasized. Conservatism values mainly promote security, conformity and tradition as well as self-discipline, obedient behaviour and the reciprocation of favors (Schwartz 1994).

Intellectual/Affective Autonomy

The antipole to conservatism, autonomy encompasses values that refer to a person as an autonomous entity with individual rights, interests and desires. Interpersonal relations are defined in terms of self-interests and optional agreements. Individual thoughts and actions determining a person's life are promoted. The two different types of autonomy either refer to a rather intellectual emphasis of self-determination or to a rather affective focus on hedonism. *Intellectual autonomy* emphasizes the disposition of a person to follow his/her own rational thoughts and ideas. *Affective autonomy* on the other hand side focuses on the right of an individual to experience its own feelings and emotions linked to positive affective experiences. Values defining intellectual autonomy are

curiosity, generosity and creativity. Typical values assigned to affective autonomy are pleasure, excitement, enjoyment and variety in life (Schwartz 1994; Steenkamp 2001).

Hierarchy

A part of the dimension hierarchy versus egalitarianism the cultural-level value hierarchy promotes the legitimacy of ascribed, hierarchical roles and resource allocation to ensure social responsible behaviour. Hierarchical values comprise authority, social and influential power and wealth (Schwartz 1994; Steenkamp 2001).

Egalitarian Commitment

Voluntary commitment to help and support other people characterizes the aspect of egalitarian commitment. The prioritization of other people's welfare compared to selfish interests is emphasized. The social commitment among equals is important to assure responsible social behaviour promoted by shared interests and voluntary cooperations among individuals. Values characterizing egalitarian societies include loyalty, equality, honesty, responsibility and social justice (Schwartz 1994; Steenkamp 2001).

Mastery

Mastery describes the attempt to actively change and control the world through self-assertion. The focus lies on the modification of one's surroundings and self-actualization. Representative values for mastery are success, ambition, audacity, efficiency and independency (Schwartz 1994; Steenkamp 2001).

Harmony

Harmony is the opposite of mastery and emphasizes a life in harmony with nature. The acceptance and conservation of the world as it is and the refusal of resource exploitation are characteristic for society. The protection of the environment, unity with nature and admiration of the World's beauty best depict the domain of harmony (Schwartz 1994; Steenkamp 2001).

4.2.33 GLOBE Indices

Two of the nine identified dimensions were included in the underlying framework: Performance Orientation and Humane Orientation. The two dimensions were selected in particular because they capture cultural patterns diverging from the other cultural

frameworks used in the subsequent analysis. For both measures the “as is” score, denoting the actual standard of institutional practices, and the “should be” score, reflecting the values guiding leadership actions, are included (House et al. 2004).

Performance Orientation

Performance Orientation captures the extent to which a community “encourages and rewards innovation, high standards and performance improvement” (Javidan 2004, p. 239). Different societies may use different ways for measuring accomplishment. In some societies ascribed characteristics of individuals such as age, gender, social and family connections can as well be considered achievement indicators as actual performance in other societies. Therefore, each society has a consistent set of practices and values concerning external adaptation and internal integration that influence a society’s definition of success regarding challenges and the way a society manages interpersonal relationships among its members (Javidan 2004).

In high performance oriented societies, individuals are seen to be responsible for what happens to them and the way they master challenges. Ambition, high standards of performance, ambitious expectations and harsh competition as well as continuous learning are linked to high Performance Orientation cultures. Time is seen to be scarce and decisions are urged. Societies scoring low on Performance Orientation take several facts as given and try not to change and dominate them. Feedback, either positive or negative, is considered judgemental and discomforting. Time is seen as a perpetual resource and decisions are not rushed. Regarding internal integration individuals producing results and accomplishing assignments are valued more than others. Consequently, tasks and performance may be rated higher than social relationships. In low performance oriented societies individuals are not only judged on the basis of their achievements. Social relationships and family ties are very important (Javidan 2004).

Four scales, two measuring actual practices in society and organizations and two capturing values and expectations of respondents, were developed to assess the construct of Performance Orientation. The GLOBE scales gauge the extent to which a society promotes rewards for performance improvement and ambitious goals of individuals and the extent to which members of society cherish these practices (Javidan 2004).

Humane Orientation

The GLOBE concept of Humane Orientation stands for the extent to which individuals are encouraged and rewarded by society and organizations for “being fair, altruistic, friendly, generous, caring and kind to others” (Kabasakal and Bodur 2004, p. 569). Basically, this dimension describes the way people interact with each other and how they treat society members. Social support and interaction generally have an impact on the individual well-being as instrumental and mental help contribute to physical and psychological health. Therefore, the GLOBE study links social relations to well-being and quality of life (Kabasakal and Bodur 2004).

In high Human Orientation societies people care for others and nature, members of society are responsible for the well-being of others and material, financial and social support for family members and friends is normal. Children are expected to be obedient and support their families. Actions are driven by a distinct need for affiliation and belonging. Racial discrimination is a sensitive issue in high Humane Orientation societies. In low Humane Orientation cultures self-interest, self-enjoyment, self-enhancement and pleasure have a higher priority than caring for other members of society which is consequently done by the state. Power and material possessions are especially important to motivate people. Each individual is expected to solve personal problems alone without the support of other society members. Independency of all family members including children is common; hence, children are not asked to support their families socially and financially. Sensitivity regarding all forms of racial discrimination is considerably low (Kabasakal and Bodur 2004).

Five questionnaire items were developed to capture the Humane Orientation construct of the GLOBE study: being concerned, sensitivity towards others, acting friendly, being tolerant of mistakes, and being generous. The “As Is” questions are designed to capture the perceived engagement of organizations regarding Humane Orientation practices. The “Should Be” questions should measure the values of respondents regarding their expectations of humane-oriented engagement in organizations (Kabasakal and Bodur 2004).

4.3 Categories of Indices

Basically, the selected indices should assist in assessing a country's attractiveness for a firm. Therefore, the categorization of the indices should provide an overview of the different forces shaping a country's environment. The indices are assigned to 10 different categories on a subjective basis according to the kind of information they provide. The diverse categories range from general issues, economic subjects to social and cultural traits. However, the boundaries between categories may not always be clearly defined. Infrastructural indices, for example, nearly always give a hint about technological standards and demographic information often also regards social issues and vice versa.

General Indices illustrate the universal situation in a country without looking at specific matters in particular. Indices in the general category may range from percent changes to more complex indices capturing economic matters by adhering to theoretical economic models (e.g. Gini Index) or merging diverse forces shaping a country's environment (e.g. Globalization Index). The three indices classified in this category are: Population Growth Rate, GINI Index and Globalization Index.

Demographic key data accounts for characteristics in the population of a country. Often indicators assigned to this category represent a percentage of people in the population showing a certain characteristic, e.g. living in cities, belonging to a certain age group. However, indices could also provide information in the form of a percentage giving the likelihood of an occurrence out of 1000 cases (e.g. number of infants out of 1000 births dying before computing one year) or an average peak at which a given event is likely to occur (e.g. average age at which people are likely to die). The five indices falling in the demographic category are: Infant Mortality Rate, Life Expectancy, Population 65+, Population below poverty line and Urban Population.

Social indicators describe issues concerning education, gender equality and other traits depending on the social background. Indices in the social category prevalently depict characteristics either as a percentage of a given population (e.g. population of a country) or as an absolute number giving a mean value for a specific habit or trait (e.g. Household size, Household expenditure on recreation). Additionally, there is the possibility to express more complex matters, e.g. gender equality, by rating all relevant issues on a scale and merging all scores to one expressive value. The five indices

labeled as “social” are: Household Size, Literacy rate, Household Expenditure on Recreation and Culture, Gender-related Development Index and International Migration Stock.

Political indicators try to capture the political issues of a country in figures. All of the selected indices represent a weighted average of ratings on several influences shaping the political environment like pressure groups, level of democracy and trustworthiness of public authorities. There are five indices in this category: Failed States Index, Corruption Perception Index, Press Freedom, Bertelsmann Political Transformation Index and Bertelsmann Management Index.

Legal indices define legal habits and the difficulty and duration of law enforcement. Frequently, indicators express legal matters in number of days needed to undergo all required procedures to take a certain action (e.g. start a business, deal with licenses). Moreover, there are indices representing legal costs, e.g. fees, taxes, as a percentage of a base value (e.g. value of property). Likewise, complex issues are summarized in an index representing the overall or mean score on different legal subjects. The seven indices assigned to the group of legal key data are: Days to start a business, Enforcing Contracts, Dealing with licenses, Registering Property, Total Tax Payable, Legal Rights Index and Rigidity of Employment Index.

Economic indices portray the situation of the economy of a country. Hence, economic key data regards economic development, costs of production, the balance of exports and imports as well as inflation. Some of the indices deliver information in the form of an average value per capita (e.g. GDP/Capita, Labor Costs/Worker) or a percentage of a base value (e.g. % of gross profit, % of GDP, % of domestic demand). Others express an annual percent change (e.g. Consumer Price Inflation). Additionally, there are more complex indicators obtained by calculating a score out of the ratings on several criteria (e.g. Competitiveness Index, Economic Transformation Index). The eight indices in this category are: GDP/Capita, Labor Costs in Manufacturing, Research and Development Spending, Exports/Imports of Goods and Services, Consumer Price Inflation, Bertelsmann Economic Transformation Index and Global Competitiveness Index.

Infrastructural indices depict the existence and condition of communication means and transport facilities. Most of the indices are per capita figures, a value per 1000 people or a percentage of a base value (e.g. % of total roads paved). Five Indices are classified as

“infrastructural”: Televisions/1000, Radios/1000, Fixed Line and Mobile Phone Subscribers/1000, Internet Users/1000 and Paved Roads.

Technological Indices often coincide with infrastructural indices that do not only give a hint about the development of the infrastructure but also the technological standards in a country. Thus, just the indicators measuring technological progress will be grouped in this category in the underlying study. Basically, the indices are either a percentage of the economic use of technological advancements or a composite index measuring a community's readiness for the usage of technology. The three indices selected are: Internet Selling/Purchasing and Networked Readiness Index.

Environmental Indicators capture the impact of the civilization on the nature and environment. They measure the accessibility of land area and clean water sources as a percentage of total resources as well as the pollution of air, soil and water by means of energy and fuel use. Furthermore, the use and exploitation of resources are captured as the area of productive land actually needed to satisfy the demand of the population. The five indices assigned to the environmental category are: Ecological Footprint, Wildness, Access to Water, Energy use and Motor Vehicles.

Cultural Indices try to quantify cultural traits in a society. As culture surely is the most difficult variable to be expressed in one-dimensional data, cultural indices are generally complex figures derived by rating several cultural peculiarities on a scale and calculating a final score. The exception is Religion which is measured as a percentage of total population. Furthermore, some of the indices capture quite the same issue and a slight preference for the one over the other may solely depend on the specific situation. Therefore, indices regarding similar traits should not be used together (e.g. Hofstede and Schwartz values). The indices included in this category are: Religion, Hofstede Values, Schwartz Values, Human Orientation Practices/Values and Performance Orientation Practices/Values.

5. Countries

Fundamentally, there are various opinions on the characterization of a country. According to the theory the definition of countries is adhering to, estimates range around 190 countries. Generally, the CIA World Factbook⁶⁴ lists a much larger number of countries as territories and colonies like Puerto Rico, Bermuda, and British Indian Ocean Territory etc are included. The US Department of State acknowledges 194 independent states in the world, including the Holy See (Vatican) and the new state Kosovo⁶⁵. The United Nations have 192 member states, all of them generally recognized as independent countries⁶⁶. The Holy See, although not a member of the United Nations, is classified as an independent country and holds permanent observer mission at UN Headquarters. Another entity holding permanent observer mission at UN Headquarters, but not accepted as an independent state, is Palestine. Taiwan, even though a former member of the United Nations and still striving for international recognition, is not yet acknowledged as an independent country but a province of China due to political reasons and is therefore represented by China in the UN.

The number of countries used in the following analysis is predominantly identified according to the UN member states definition. Nonetheless, several countries are excluded as they are inappropriate for market entry decisions and data available on these countries is very scarce. Countries not included because of small market size and data scarceness are: Andorra, The Bahamas, Liechtenstein, Marshall Islands, Monaco, Nauru, St. Kitts and Nevis, Saint Lucia, San Marino and Tuvalu. For several other countries data is hardly available due to political issues. Especially, on countries governed by a dictatorship or military juntas like North Korea, Libya, Cuba and Myanmar/Burma only a limited amount of data is accessible. Available data for such countries published by international organization often diverges as it may be assumed that the official information issued by the governments is frequently manipulated and therefore, the assessment of realistic values may rely on estimations. Thus, North Korea

⁶⁴ CIA World Factbook, URL: <https://www.cia.gov/library/publications/the-world-factbook/index.html>, retrieved May 7, 2008

⁶⁵ US Department of State, URL: <http://www.state.gov/s/inr/rls/4250.htm>, retrieved May 7, 2008

⁶⁶ United Nations member list, URL: <http://www.un.org/members/list.shtml#k>, retrieved; May 7, 2008

has to be excluded from further analysis. The two states Serbia and Montenegro emerged via separation of the country Serbia and Montenegro. As data on the two separate countries were hardly available at the time of data entry they are also eliminated from the analysis. Taiwan and Hong Kong are added to the countries entering the analysis, although officially Chinese territories. However, data on these provinces differ decisively from numbers and figures regarding the rest of China.

In general, the year of reference used for the data applied in the subsequent analysis is 2006 for all countries if information is available. Otherwise, the last year an index is obtainable is selected. In some cases values for different countries date from different years as the accessibility of data depends on census years, which are defined rather diversely. In these special cases the last available value for the index in question is used for further analysis.

183 entities are used in the subsequent principal component analysis and a subset of 72, according to the definition of desired markets, for the successive cluster analysis in the practical application. Data ranges between 1980 (oldest entry) and 2006, with most data originating from 2006 reports.

6. Method

Statistical approaches and software programs employed in the subsequent analysis are discussed into detail throughout this chapter. For preliminary analyses SPSS 16 is used. The visual software program Viscovery Profiler 5 is employed for the illustration of the applicability and use of the presented data set in market entry and market segmentation shown in Chapter 8. Furthermore, the method selected for the cluster analysis in Viscovery Profiler is comprehensively discussed.

6.1 Viscovery Profiler⁶⁷

Eudaptics Viscovery Profiler 5 is a visual software solution to assist data mining, cluster analysis, segmentation and customer profiling. It supports marketing, business intelligence and IT departments from importing and pre-processing information over visualized segmentation solutions to the definition and control of marketing actions and the development of integrated models to predict consumer behaviour. Viscovery Profiler 5 produces fast and accurate solutions also for very large datasets using conventional statistical clustering procedures in combination with the visualization of rather complex data. The basic method employed by the Viscovery Profiler is best illustrated by the following simple example.

There are 1000 people randomly gathered on a football ground. Several attributes for the comparison among people are defined. Participants are then asked to swap places till everyone stands near people most similar regarding the attributes in question. Finally, people should hold up coloured flags representing a certain level of a pre-specified attribute. From above, the football ground is now divided in numerous sub-groups in different colours.

Viscovery Profiler was successfully introduced in the insurance, finance and banking industry, in the telecommunication sector, in media and e-business enterprises, in retail as well as in non-profit organizations, to name a few.

⁶⁷ Information in the following section is taken from: Eudaptics (2008), URL: www.viscovery.net, retrieved June 7, 2008

For the subsequent analysis only a part of the software program is used as the main purpose of the underlying study is the clustering of countries in groups sharing similar characteristics but not the definition and control of marketing activities. The data is imported from an SPSS file, excluding data entries identified as outliers in preliminary analyses. By default all attributes enter the analysis with the same importance, an assigned weight of 1. However, the weights for correlating attributes are automatically reduced by the software in the clustering process to compensate for the influence of correlations among items on the results. Furthermore, different weights could also be manually assigned to attributes to determine their importance in the clustering process if desired. Eventually, the SOM-Ward method, a combination of Self-Organizing maps and Ward's method, is applied to derive a cluster solution.

6.2 Cluster Analysis

Fundamentally, cluster analysis is “a technique used for combining observations into groups or clusters” (Sharma 1996, p. 185). These groups or clusters should be characterized by a considerable homogeneity within one cluster regarding certain characteristics and a substantial heterogeneity between different clusters according to the same characteristics. Principally, the definition of homogeneity and heterogeneity is determined by the scope of the study. In the underlying case, cluster analysis is used to find a homogeneous subset of countries that seem to represent a very favourable environment for a standardized marketing approach (Huszagh et al. 1986). Generally, cluster analysis is the most frequently used international segmentation approach, although the classification is often based on subjective criteria and performance is negatively influenced by highly correlated variables. Reliability judgements of results cannot be provided (Steenkamp and Ter Hofstede 2002).

Generally, there are two different types of cluster techniques, hierarchical and non-hierarchical, and several cluster methods for each of these techniques (Backhaus et al. 2003; Sharma 1996). Commonly, hierarchical clustering approaches are mostly used in practical applications and are also used in the subsequent analysis. Most hierarchical methods are based on the calculation of a similarity measure, e.g. squared Euclidean

distance⁶⁸. However, there are various different rules and methods to determine the distances between two clusters. In fact, the hierarchical clustering methods differ primarily with regards to the calculation of similarity measures among clusters (Sharma 1996).

Generally, at the beginning of each hierarchical cluster method each object represents a cluster by its own. In the next step the similarity measures for all relevant objects are calculated. The two clusters with the smallest distance, and thus the most homogeneous objects, are merged to form a new cluster. Again the similarity measures between the new group and the remaining objects are computed (Backhaus et al. 2003).

6.2.1 Ward's Method

Ward's method, the clustering algorithm selected for the following analysis, differs from other hierarchical cluster algorithms in so far as it does not merge clusters based on distances but by maximizing within-cluster homogeneity. Essentially, Ward's method minimizes the error sum of squares (ESS)⁶⁹ within a cluster. In each iterative step the resulting cluster solution is characterized by the smallest within-cluster error sums of squares. Hence, a cluster is formed by those objects that only marginally increase the variance within the group (Backhaus et al. 2003; Sharma 1996).

6.3 Self-Organizing Maps (SOM)

The denotation "self-organizing map" stands for a group of "neural-network algorithms in the unsupervised learning category" (Kohonen 1997, p. 114). Principally, artificial

$$^{68} D_{ij}^2 = \sum_{k=1}^p (x_{ik} - x_{jk})^2$$

D_{ij}^2 represents the squared Euclidean distance between the subjects i and j ; x_{ik} stands for the value of the k^{th} attribute for the i^{th} subject; x_{jk} captures the value of the k^{th} attribute for the j^{th} subject; p is the number of attributes

Sharma, Subhash (1996), *Applied Multivariate Techniques*. New York: John Wiley & Sons, Inc.

$$^{69} ESS = \sum_{j=1}^{J_g} \sum_{k=1}^K (x_{jkg} - \bar{x}_{kg})^2$$

x_{jkg} is the value of the k^{th} attribute for the j^{th} subject in group g ; $\bar{x}_{kg}$ is the mean of all values for attribute k in group g (adapted from Backhaus et al 2003)

neural networks (ANN) are obtained through models of neurophysiology and consist of “simple non-linear computing elements whose inputs and outputs are tied together to form the network” (Kuo et al. 2002, p.1477). Generally, one can distinguish two different categories of learning algorithms for ANNs. The supervised approach compares the output of the analysis to a known answer to receive a feedback about errors, e.g. testing class-membership, whereas the unsupervised learning (like Self-Organizing Maps) requires only inputs to discover patterns in the input data (Kuo et al. 2002).

The basic concept of self-organizing maps was invented by Professor Teuvo Kohonen, the founder of the Neural Networks Research Center, in 1981. Nowadays, several variants of the basic SOM are used in diverse fields ranging from engineering sciences to medicine and economics (Kohonen 1997). Until 2001 over 5384 research papers were published on the application and analysis of self-organizing maps (Oja et al. 2002).

Fundamentally, Self-Organizing Maps are based on a mathematical algorithm mapping similar patterns next to each other in an output space. Consequently, high-dimensional data is projected and visualized on a two-dimensional grid. The algorithm driving the mapping from high dimensional data to neural networks is best compared to a “nonparametric regression” (Kohonen 1997).

Although, the most promising applications of SOM have been seen in commerce, industry, macroeconomics and finance, self-organizing maps are increasingly applied in market segmentation as well (Kohonen 1997; Vellido et al. 1999). The use of unsupervised neural models in market segmentation is justified by a rather intuitive clustering approach resulting in a clear separation of clusters without any a priori information on the class-membership of items. Furthermore, the SOM is assumed to be able to generalize insofar, that it is capable of mapping items the SOM has not been trained into the neural network and infer their class membership (Vellido et al. 1999).

6.3.1 SOM-Ward Clusters

Often self-organizing maps are used in conjunction with supervised methods, like in the segmentation approach of the online shopping market by Vellido et al. (1999). Kuo et al. (2002) combine the SOM with a conventional cluster approach, like K-means

clustering. As discussed above one can distinguish between hierarchical, e.g. Ward's method, and non-hierarchical, e.g. K-means, cluster approaches. Conventional two-stage cluster approaches normally employ a hierarchical cluster method to find the number of clusters followed by a non-hierarchical cluster method to provide a final solution. The two-stage method proposed by Kuo et al. (2002) uses self-organizing maps to assess the number of clusters and then the K-means method to find a final solution. This integration of SOM and K-means unites the ability of self-organizing maps to intuitively handle large amounts of data and the characteristics of non-hierarchical methods to find an accurate solution for a large data set when the number of clusters is predefined. Although, the new two-stage approach proves slightly better than the conventional two-stage approach in several follow-up analyses, e.g. Wilk's Lambda and Discriminant Analysis, the use of self-organizing maps to identify the number of clusters may turn out difficult in various cases (Kuo et al. 2002).

Therefore, self-organizing maps are applied in combination with Ward's method in the subsequent analysis conducted with the help of Viscovery Profiler. Ward's method smoothes out the difficulties of defining the number of clusters with self-organizing maps while the SOM approach accounts for the shortcomings of hierarchical clustering methods regarding the handling of large data sets.

7. Preliminary Analysis

The indices introduced in Chapter 4 will be categorized and further analysed with SPSS 16 regarding relationships and interdependencies. Principal component analysis will be applied to reduce the potential data set to a more manageable size easing the selection and use of indices by identifying linear components within the data.

Additionally, guidelines for the expedient and exhaustive use of the proposed indices will be discussed.

7.1 Sub-categorization of indices

Basically, indices were assigned to categories in Chapter 4.3 according to the information they provide. These categories, based on the judgmental assignment of indices, are taken as given and will be analyzed into more detail concerning the type of information they convey for a certain topic, e.g. key issues on trade on the one hand side and data on wealth on the other hand side for economic matters. To identify these underlying structures in the categories principal components analysis will be applied.

Fundamentally, principal components analysis is a data-reduction technique “for forming new variables which are linear composites of the original variables” (Sharma 1996, p.58). Correlations between the original variables are a prerequisite for a sound principal components analysis. The resulting new variables, referred to as components, are uncorrelated. To form the linear components principal component analysis supposes that all variance of an attribute is common variance. Consequently, the first component extracted accounts for the maximum variance in the data, the second component for the maximum variance the first component has not accounted for and so on (Field 2005; Sharma 1996).

To avoid that attributes show high loadings on the most important component and only small loadings on all other components, factor rotation is employed to discriminate among components. There are two different types of rotation: *orthogonal rotation* and *oblique rotation*. In the subsequent principal component analysis *Varimax* rotation, an orthogonal rotation method is applied. In contrast to oblique rotation orthogonal rotation ensures that components stay uncorrelated. *Varimax* rotation enhances the

interpretability of components by allowing a maximization of the dispersion of loadings within a component (Field 2005).

Principal component analysis further assumes that the sample in question is the population. Therefore, results cannot be extrapolated beyond the sample under investigation and interpretations and conclusions are strictly limited to this particular sample (Field 2005). However, as the number of countries in the world is definite, the extrapolation of results becomes obsolete anyway in the underlying case.

7.1.1 Data Screening

Since the indices used for this thesis are transferred from diverse sources and formats data screening for wrong data entries is a key issue. Moreover, some countries score crucially different on several indices. Therefore, extremely low and exceptionally high values, especially those that are expected to remain at the current level or to move further away from the mean, are eliminated and treated as missing values in the subsequent analysis to avoid biased outcomes. Singapore and Hong Kong for example are characterized by a remarkably high proportion of immigrants and an elevated percentage of exports and imports. Ethiopia, on the other hand side, scores unusually low on literacy rate and access to improved water sources. The consumer price inflation (CPI) for Zimbabwe represents a rather outstanding example as it takes a value of 2879.5% in 2007. Values for previous years amounted up to around 300% and forecasts estimate that the CPI for Zimbabwe will grow up to 6000%. Normally, in most countries CPI values range between 2.5% and 7.0%.

Due to the use of secondary data the availability of information was restricted for several countries and on several issues. Thus, missing values are a major issue to be dealt with in the following analysis.

Principal component analysis could not yield interpretable results when applied on the entire data set due to a vast amount of missing values (the resulting correlation matrix is not definite), therefore, separate analyses within the ten pre-specified categories of indices are carried out. To guarantee the soundness of the results cases with missing values were deleted listwise, sometimes leading to rather small samples for the analysis. The index Religion was entirely excluded from the principal components analysis as the mere construction of the variable leads to a large amount of missing data

due to considerable variations in religious beliefs in different countries, e.g. the proportion of Jews in Israel is relatively high compared to very low percentages of Jews in other countries around the world. Therefore, Religion is set apart from the other variables of the data set and can not be assigned to one of the resulting components, but rather represents a dimension by its own.

7.1.2 Correlations

Correlations among attributes are essential when conducting a principal components analysis. Any variables that do not correlate with the other variables should be excluded from further analysis. However, on the other hand side, attributes that correlate too highly create a problem in the analysis too due to extreme multicollinearity (variables are very highly correlated) and singularity (variables are perfectly correlated). As a result it is impossible to identify the unique contribution of highly correlated variables to a factor (Field 2005).

To determine the correlation between the indices under investigation Pearson's correlation coefficient⁷⁰ was used. According to Field (2005) the Pearson's (product-moment) correlation coefficient is "a standardized measure of the strength of relationship between two variables" (p.741). The value for the correlation coefficient can range between -1 and +1. In the case of a negative correlation, if one of the variables changes the value for the other variable will alter in the opposite direction, while in the case of a positive correlation, the alteration will occur in the same direction. If the change of one variable does not induce an alteration of the other variable, the Pearson' correlation coefficient has a value of 0 (Field 2005).

$$^{70} r = \frac{\text{cov}_{xy}}{s_x s_y} = \frac{\sum (x_i - \bar{x})(y_i - \bar{y})}{(N - 1) s_x s_y}$$

x_i and y_i denote the respective value of the two variables x and y for the i^{th} item; $\bar{x}$ and $\bar{y}$ represent the arithmetic mean of the sample for the two variables respectively; s_x and s_y stand for the standard variations of the two variables; N captures the number of observations. Basically, the formula depicts the standardized covariance.

Field, Andy (2005), *Discovering Statistics Using SPSS* (Second ed.): Sage Publications Ltd.

Most indices used in the subsequent analysis are significantly correlated with correlations ranging predominantly between $r = 0.2$ and $r = 0.85$, $p < 0.01$. A few indices are correlated very highly. Infant Mortality, for example, shows a significant relationship with Life Expectancy, $r = 0.9$, $p < 0.01$. In the political category the Bertelsmann Political Transformation Index and the Bertelsmann Management Index are significantly related, $r = 0.887$, $p < 0.01$, due to overlapping methodologies. Additionally, Bertelsmann Political Transformation Index is highly negatively correlated with Press Freedom, $r = -0.903$, $p < 0.01$. The environmental attributes Energy use per Capita and Motor Vehicles per 1000 people are highly correlated as well, $r = 0.9$, $p < 0.01$. Moreover, Energy use per Capita and Ecological Footprint are positively related, $r = 0.912$, $p < 0.1$, as Ecological Footprint is more or less a measure for the exploitation and pollution of resources which of course comprises oil consumption. The legal indices Tax payable and Days to start a business do not correlate significantly with each other. Several cultural indices show insignificant correlations as well; hence, the principal component solution for the cultural category should be critically evaluated.

However, all of the indices mentioned above are retained for the principal components analysis since they show reasonable correlations with all other indices within their group.

7.1.3 Results

The principal components analysis of the categories results in sixteen sub-groups of indices. The categories on demographic, social, political, infrastructural and technological issues each describe only one dimension. In the groups regarding economic, legal and environmental matters two dimensions are extracted. The examination of the cultural indices yields five diverse components.

The Kaiser-Meyer-Olkin measure of sampling adequacy (KMO), representing “the ratio of the squared correlation between variables to the squared partial correlation between variables” (Field 2005, p. 640), is calculated to ensure the adequacy of sample size and included variables. For a majority of the categories the KMO criterion ranges between 0.652 and 0.849, indicating that the components derived within the categories are quite distinct and reliable. For the group of cultural indices the KMO is only 0.524,

underscoring the assumption that the component solution for this category might not be as stable as for the other categories and should be used with caution in further analyses.

Moreover, Cronbach's α ⁷¹ is computed to test the reliability of the resulting components, or in other words, to see if the indices within one component are actually measuring the same construct (Field 2005). For most of the derived components Cronbach's α is devastatingly low, ranging between 0.015 and 0.652. Only the infrastructural category and the cultural sub-category "Societal Orientation" yield decent values for Cronbach's α , namely 0.82 and 0.878 respectively. Although the reliability check does not support the consistency of the derived components they are employed to ease and guide the selection of appropriate indices in the subsequent analysis. Arabie and Hubert (1994), for example, note that the use of factor analysis may distort the outcome of cluster analysis anyway as the variables are filtered beforehand influencing the capability of cluster analysis to identify a structure within the data set, an assumption that may as well be valid for principal component analysis. Hence, the components itself are not used to establish a consistent, reliable scale but only to provide a rough framework for the choice of indices. Thus, the low values for Cronbach's α are not regarded as a major problem in this case since the key task of the principal component analysis here is the alignment of indices into logical groups providing a valuable input for assessing a certain issue. The attributes within one category might not all measure the same construct but still each of them measures a specific trait of the topic in question. Gender-related Development Index for example captures the status quo of human development with respect to gender differences whereas Literacy Rate accounts for analphabetism and education in a country, still both of them measure a social issue. Consequently, a reduction of variables within a category to improve Cronbach's α is not desirable as it would reduce the variety of indices.

$$^{71} \alpha = \frac{N^2 \overline{Cov}}{\sum s_{item}^2 + \sum Cov_{item}}$$

N represents the number of all variables/items; $\overline{Cov}$ captures the average covariance between items; $\sum s_{item}^2$ is the sum of the item variances; $\sum Cov_{item}$ is the sum of all item covariances.

Field, Andy (2005), *Discovering Statistics Using SPSS* (Second ed.): Sage Publications Ltd.

General

The general indices are Population Growth, Globalization Index and Gini Index. All of them load remarkably on one component. The Globalization Index loads negatively on the component with a factor loading of -0.891, whereas Population Growth and Gini Index show a positive loading of 0.846 and 0.777 respectively. The two variables loading positively describe a potential deterioration of the living environment in a country with increasing values while attributes that describe enhanced development and internationality with augmenting values have a negative loading.

Table 7.1 PCA General Indices

General	N	96 countries
	KMO	0.664
	Cronbach's α	0.492
	Index	Component
	Globalization Index	-0.891
	Population Growth	0.846
	Gini Index	0.777

Demographic

The indices assigned to the demographic group are Life Expectancy, Infant Mortality, Population below poverty line, Population 65+ and Urban Population. The analysis of this category results in one component. Life Expectancy (0,926), Population 65+ (0,794) and Urban Population (0,770) yield a positive factor loading, while Infant Mortality and Population below poverty line load highly negatively on the demographic component with -0.918 and -0.845 correspondingly. Therefore, the three indices showing a positive loading account for improved living standards and progress. The other two indices capture deterioration in living and sanitary conditions with augmenting values and influence demographic issues negatively.

Table 7.2 PCA Demographic Indices

Demographic	N	119 countries
	KMO	0.849
	Cronbach's α	0.652
	Index	Component
	Life Expectancy	0.926
	Infant Mortality	-0.918
	Population below poverty line	-0.845
	Population 65+	0.794
	Urban Population	0.770

Social

The social category comprises the indices Gender-related Development Index, Literacy Rate, Household Expenditure on Recreation and Culture, Household Size and International Migration Stock. One component is extracted from the social category. Except Household size (-0.669) all other indicators load positively on the social component. Hence, increasing values for indices correlating positively with the social component, like Gender-related Development Index (0.862), Literacy Rate (0.795), Household Expenditure on Recreation and Culture (0.792) and International Migration Stock (0.609), account for an open-minded society whereas an augmenting Household Size stands for a more traditional society and therefore has a negative factor loading.

Table 7.3 PCA Social Indices

Social	N	24 countries
	KMO	0.734
	Cronbach's α	0.161
	Index	Component
	Gender-related Development Index	0.862
	Literacy Rate	0.795
	Household Expenditure (Recreation)	0.792
	Household Size	-0.669
	International Migration Stock	0.609

Political

The analysis of the political category consisting of Bertelsmann Management Index, Bertelsmann Political Transformation Index, Press Freedom, Failed States Index and Corruption Perception yields a one-component solution as well. Bertelsmann Management Index, Bertelsmann Political Transformation Index and Corruption Perception load considerably positive on the political component with loadings of

0.934, 0.927 and 0.802 respectively. High scores for these indices capture a progressive, fairly democratic environment, therefore influencing political issues positively. Press Freedom and Failed States Index show negative factor loadings of -0.888 and -0.875. The higher a country scores on these indices the more restrictive and instable are current politics, thus they load negatively on the political component.

Table 7.4 PCA Political Indices

Political	N	115 countries
	KMO	0.802
	Cronbach's α	0.630
	Index	Component
	Management Index	0.934
	Political Transformation Index	0.927
	Press Freedom	-0.888
	Failed States Index	-0.875
	Corruption Perception	0.802

Legal

Seven indicators are assigned to the legal category: Rigidity of Employment Index, Total Tax Payable, Strength of Legal Rights Index, Enforcing Contracts, Days to start a Business, Registering Property and Dealing with Licenses. The first three indices load significantly on a component labeled *General Legal Environment* while the latter four are assigned to the second component named *Contractual Issues*.

Rigidity of Employment Index and Total Tax payable show a positive factor loading of 0.769 and 0.737 correspondingly. The Strength of Legal Rights Index loads negatively on the component *General Legal Environment* with -0.653. Descending values for the Rigidity of Employment and Total Tax Payable denote liberalization in the labor law and tax system and makes a country more attractive for entrepreneurs. The Strength of Legal Rights Index on the other side captures the regulations for granting and getting credit; the higher the value for this index is the better is the legal framework provided for creditors and debtors. Therefore, the indices reducing the costs for firms and enhancing entrepreneurship with decreasing values in a country correlate positively with the component. As a consequence, the index also standing for a higher regulation with ascending values does not restrict trade but rather improves the environment for expansion and thus, is negatively related to the first component.

Table 7.5 PCA Legal Indices (General Legal Environment)

General Legal Environment	N	130 countries
	KMO	0.711
	Cronbach's α	0.145
	Index	Component
	Rigidity of Employment Index	0.769
	Total Tax Payable	0.737
	Strength of Legal Rights Index	-0.653

All indices on the second component *Contractual Issues* have positive factor loadings. However, Enforcing Contracts (0.778) and Days to start a Business (0.746) load remarkably high on the component while Registering Property (0.540) and Dealing with Licenses (0.517) in comparison show considerably lower loadings. The more days a procedure requires or the higher the costs (as a % of property value) until the completion of the legal matter the more bureaucratic and intransparent the official channel seems to be.

Table 7.6 PCA Legal Indices (Contractual Issues)

Contractual Issues	N	130 countries
	KMO	0.711
	Cronbach's α	0.335
	Index	Component
	Enforcing Contracts	0.778
	Days to start a Business	0.746
	Registering Property	0.540
	Dealing with Licenses	0.517

Economic

GDP/Capita, Research and Development Spending, Bertelsmann Economic Transformation Index, Global Competitiveness Index, Manufacturing Labor Costs, Consumer Price Inflation, Exports and Imports of Goods and Services are classified as economic indices. The two resulting components are Economic Competitiveness and Trade. *Economic Competitiveness* comprises GDP/Capita, R&D Spending, Economic Transformation Index, Global Competitiveness Index, Manufacturing Labor Costs and Consumer Price Inflation. The two remaining indices Exports of Goods and Services and Imports of Goods and Services form the sub-category *Trade*.

All of the indices with one exception assigned to *Economic Competitiveness* load positively on this component, namely GDP/Capita with 0.867, R&D with 0.854,

Economic Transformation Index with 0.784, Global Competitiveness Index with 0.774 and Manufacturing Labor Costs with 0.635. Consumer Price Inflation (-0.448) is the only index loading negatively on the component in question. As CPI increases the economic environment becomes riskier and living standards decrease. For the other indicators an increase means wealth, development and internationalization.

Table 7.7 PCA Economic Indices (Competitiveness)

Economic Competitiveness	N	37 countries
	KMO	0.652
	Cronbach's α	0.458
	Index	Component
	GDP/Capita	0.867
	R & D	0.854
	Economic Transformation Index	0.784
	Global Competitiveness Index	0.774
	Manufacturing Labor Costs	0.635
	Consumer Price Inflation	-0.448

Imports of Goods and Services and Exports of goods and Services load highly on *Trade* with 0.940 and 0.895 respectively. Both of them capture the trade compatibility and competitiveness of a country. A high value for both of the indices stands for an elevated engagement in international trade.

Table 7.8 PCA Economic Indices (Trade)

Trade	N	37 countries
	KMO	0.652
	Cronbach's α	0.804
	Index	Component
	Imports	0.940
	Exports	0.895

Infrastructural

Phone Subscribers/1000, Televisions/1000, Internet Users/1000, Radios/1000 and % of Paved Roads are infrastructural indices. There are no sub-groups in this category and all of the indices load positively on the resulting component. Phone Subscribers/1000 (0.942), Televisions/1000 (0.921), Internet Users/1000 (0.910) and Radios/1000 (0.872) all show factor loadings well above 0.8. % of Paved Roads loads slightly lower on the infrastructural component with 0.769 as it measures a slightly different aspect of infrastructure. Principally, all of the infrastructural indices capture different

infrastructural issues in a country, for example basic infrastructure like the condition of roads, etc. or communications structure (Internet, Phone, TV). The higher the value for each of these indicators the better and more advanced is the situation of the infrastructure in a country.

Table 7.9 PCA Infrastructural Indices

Infrastructural	N	110 countries
	KMO	0.822
	Cronbach's α	0.820
	Index	Component
	Phone Subscribers/1000	0.942
	Televisions/1000	0.921
	Internet Users/1000	0.910
	Radios/1000	0.872
	% of Paved Roads	0.769

Technological

The technological indices are Internet Purchasing, Internet Selling and Networked Readiness Index, all loading highly positive on a single component. Although the technological indices measure technological advancement via internet use, the Internet Selling (0.909) and Internet Purchasing (0.903) rather capture the part of trade handled via Internet by businesses while Networked Readiness Index (0.899) accounts for the introduction of the Internet in telecommunication technologies in various areas. The higher the percentage of businesses using the Internet for trade or the score of the NRI, the more advanced is the adoption of technologies in everyday economic and private life.

Table 7.10 PCA Technological Indices

Technological	N	27 countries
	KMO	0.748
	Cronbach's α	0.593
	Index	Component
	Internet Purchasing	0.909
	Internet Selling	0.903
	Networked Readiness Index	0.899

Environmental

Basically, five indices are classified as environmental indices, namely: Ecological Footprint, Motor Vehicles/1000 people, Energy Use/Capita, Population with access to

improved water source and Wilderness. Apart from Wilderness the indices load considerably on one component, labeled *Human Impact*. Wilderness forms a component by itself, hence named *Wilderness*.

Ecological Footprint, Motor Vehicles/1000 and Energy Use/Capita show remarkably high loadings on the *Human Impact component* of 0.967, 0.939 and 0.922 respectively. Population with access to water loads slightly lower on the component in discussion with 0.732. However, all of the loadings on the Human Impact component are positive. For the first three indices mentioned augmenting values stand for development and progress only to a certain level and then describe a deterioration of the environmental situation and an exaggerated exploitation of the resources. An increasing percentage of population with access to water accounts for the development and improvement of sanitary facilities and living conditions.

Table 7.11 PCA Environmental Indices (Human Impact)

Human Impact	N	102 countries
	KMO	0.758
	Cronbach's α	0.189
	Index	Component
	Ecological Footprint	0.967
	Motor Vehicles/1000	0.939
	Energy Use/Capita	0.922
	Population with access to water	0.732

Wilderness is set apart from the other four indices and loads highly on an own component with 0.984. This result is not really surprising as the indices of Human Impact capture the use, exploitation and contamination of resources whereas Wilderness depicts the percentage of land with low anthropogenic impact.

Table 7.12 PCA Environmental Indices (Wilderness)

Wilderness	N	102 countries
	KMO	0.758
	Cronbach's α	-
	Index	Component
	Wilderness	0.984

Cultural

The cultural category is composed of indices of several established culture frameworks. Hofstede's values (Individualism/Collectivism, Uncertainty Avoidance, Power Distance, Femininity/Masculinity, Long/Short Term Orientation) are as well a part of this group of indices as Schwartz's framework (Hierarchy, Egalitarian Commitment, Intellectual/Affective Autonomy, Conservatism, Harmony, Mastery) and the GLOBE Project (Human Orientation Values/Practices, Performance Orientation Values/Practices). The analysis of the cultural indices results in five different sub-categories: *Interactive Orientation & Tradition*, *Societal Orientation*, *Situational Orientation*, *Human Orientation* and *Competitive Orientation*.

Interactive Orientation comprises Individualism/Collectivism, Power Distance, Long/Short Term Orientation, Hierarchy and Egalitarian Commitment. Therefore, this component captures the rules of interaction and power distribution as well as the need for affiliation to cohesive groups, social commitment and the importance of hierarchy in society. Individualism/Collectivism (-0.861), Power Distance (0.812), Long/Short-Term Orientation (0.762) and Hierarchy (0.735) load highly on the Interactive Orientation component whereas Egalitarian Commitment (-0.553) shows a considerably lower loading. The two indices having negative loadings are Individualism/Collectivism and Egalitarian Commitment. High scores on these dimensions stand for more individualistic and altruistic societies, while high values on the other indices means an augmentation of interaction rules and hierarchical and traditional orders as well as an unequal power distribution.

Table 7.13 PCA Cultural Indices (Interactive Orientation&Tradition)

Interactive Orientation&Tradition	N	21 countries
	KMO	0.524
	Cronbach's α	0.659
	Index	Component
	Individualism/Collectivism	-0.861
	Power Distance	0.812
	Long/Short Term Orientation	0.762
	Hierarchy	0.735
	Egalitarian Commitment	-0.553

Societal Orientation consists of the three indices Intellectual Autonomy, Conservatism and Affective Autonomy. Thus, this sub-category describes the maintenance of tradition

and conformity and the role of individual evolvement. Intellectual Autonomy and Conservatism both have the same loading, only that Intellectual Autonomy loads highly positive with 0.904 and Conservatism loads highly negative with -0.904. Affective Autonomy shows a factor loading of 0.854. An increase in Intellectual/Affective Autonomy stands for an enhanced realization of the individual while a rise in Conservatism accounts for an elevated importance of tradition and collectivity.

Table 7.14 PCA Cultural Indices (Societal Orientation)

Societal Orientation	N	21 countries
	KMO	0.524
	Cronbach's α	0.878
	Index	Component
	Intellectual Autonomy	0.904
	Conservatism	-0.904
	Affective Autonomy	0.854

Situational Orientation

Uncertainty Avoidance, Performance Orientation Practices/Values and Harmony build the sub-category of *Situational Orientation*. Fundamentally, this component captures the disposition of societies to deal with unstructured situations and the reaction to innovation and improvement as well as the importance of nature and justice. Uncertainty Avoidance, Harmony and Performance Orientation Values load positively on the Situational Orientation component with 0.899, 0.639 and 0.500 correspondingly. Small values for these indices stand for fewer rules and mild laws, an elevated willingness to the selfish exploitation of resources and a reduced importance of innovation and performance improvement in people's minds. Performance Orientation Practices is the only index in the sub-category showing a negative loading. Low scores on Performance Orientation Practices indicate an actually restrained encouragement of innovation and performance climax.

Table 7.15 PCA Cultural Indices (Situational Orientation)

Situational Orientation	N	21 countries
	KMO	0.524
	Cronbach's α	0.055
	Index	Component
	Uncertainty Avoidance	0.899
	Performance Orientation Practices	-0.877
	Harmony	0.639
	Performance Orientation Values	0.500

Human Orientation

Only two indices are part of the sub-category *Human Orientation*: Humane Orientation Values and Humane Orientation Practices. Both of them portray the encouragement of fairness, friendliness and generosity in society. Human Orientation Values (0.870), depicting the imagination of people how social interaction should be, loads considerably positive on Human Orientation. The higher values for this index are the higher is the importance of social respect and fairness of organizations in people's perception. Human Orientation Practices on the other hand side shows a remarkable negative loading of 0.823. Basically, this index captures the actual status quo of social interaction among organizations and individuals in a society. The higher a country scores on the indicator Humane Orientation Practices the better is the integration of fairness and friendliness in organizations' actual actions.

Table 7.16 PCA Cultural Indices (Human Orientation)

Human Orientation	N	21 countries
	KMO	0.524
	Cronbach's α	0.423
	Index	Component
	Humane Orientation Values	0.870
	Humane Orientation Practices	-0.823

Competitive Orientation

Hofstede's Masculinity/Femininity and Schwartz's Mastery form the component *Competitive Orientation* reflecting the dimension mastery versus nurturance identified by (Steenkamp 2001). These two frameworks depict the significance of assertiveness and competitiveness in society as well as the disposition to actively change and selfishly exploit the world. Both of the mentioned indices load positively on the component in

question, Masculinity/Femininity considerably with 0.952 and Mastery with 0.613. The higher the score a country attains on each of the two the more important are masculine values like assertiveness and competitiveness.

Table 7.17 PCA Cultural Indices (Competitive Orientation)

Competitive Orientation	N	21 countries
	KMO	0.524
	Cronbach's α	0.015
	Index	Component
	Masculinity/Femmininity	0.952
	Mastery	0.613

As mentioned above the presented categorization according to the factor solution should only serve for a basic guidance regarding the use of indices. Indices of categories with a very low Cronbach's α should be used with caution bearing in mind that the index will to a large part describe the certain issue it is designed to measure, than actually the meaning of the component it is assigned to. The next section will discuss into further detail the utilization of the sub-categories and respective indices.

7.2 Using the indices

Fundamentally, a large set of variables is frequently collected to characterize and cluster countries. However, there is no justification for a large set of different variables as the issues they measure seem to be considerably correlated (Nachum 1994a). Therefore, the categorization derived in Chapter 7.1 should support the selection of appropriate indices for market entry and segmentation by reducing the pool of consideration from over 60 to only 16 items. Instead of looking at every index in particular one can first decide which sub-categories are actually essential for the decision at hand. Then an index representing this category may be selected for further analysis. To get a good representation of the sub-category one of the indicators loading highly on this component should be chosen.

Especially for a pre-screening step suggested by Johansson (1997) as well as by Peterson and Malhotra (2000) at the macro-economic level the developed framework provides valuable insights. The selected indices for the cluster procedure should provide a broad picture of the status quo concerning several issues to group countries according to their overall market similarity. Consequently, the indicators selected from each sub-

category should have the highest or second highest loading in this sub-group, according to the fit regarding the background of the investigation, to reliably convey the topic measured by the component. The general evaluation of market similarity may probably give a hint about possible market entry strategies concerning different country groups as well.

The proposed framework also facilitates the choice of indices for the screening step. Fundamentally, in the market segmentation deliberations about marketing mix may influence the selection of indices. Not the overall assessment of the market situation and similarity but the actual comparability of countries regarding marketing actions may play a major role in this case. Indices should still be chosen on the basis of the different categories to avoid a disproportionate influence of a specific sub-category, unless it actually has major importance for segmentation decisions. Yet, the indices selected from the diverse sub-groups may not be the ones best representing the components but the ones best addressing the marketing challenges at hand.

Anyway, several sub-categories should not be used together in the analysis as they show elevated correlation levels amongst them, despite thorough consideration and analysis. The table below illustrates the components with the highest correlations. Only significant correlations exceeding 0.65 are displayed. Significance levels are given in the brackets.

Table 7.18 Intercorrelation between sub-categories

	Economic Competitiveness	Technology	Infrastructure	Human Impact	Situational Orientation	Contractual Issues
Economic Competitiveness	1	0.925 (0.05)	0.653 (0.01)	0.708 (0.01)	-	-
Technology	0.925 (0.05)	1	0.763 (0.01)	0.672 (0.01)	-0.769 (0.01)	-
Infrastructure	0.653 (0.01)	0.763 (0.01)	1	0.880 (0.01)	-	-
Human Impact	0.708 (0.01)	0.672 (0.01)	0.880 (0.01)	1	-	-
Situational Orientation	-	-0.769 (0.01)	-	-	1	0.703 (0.01)
Contractual Issues	-	-	-	-	0.703 (0.01)	1

Economic Competitiveness, for example, is highly correlated with *Technology* and *Human Impact* which of course is no surprise as economic progress and technological

advances as well as anthropogenic influence on nature are closely linked. *Technology* is furthermore significantly related to *Infrastructure* and *Situational Orientation*. Indices within the two categories *Infrastructure* and *Technology* could often be assigned to both categories. *Situational Orientation* captures the attitude of people and entities regarding innovation and uncertainty situations, issues which are certainly interlinked with technology, innovation and progress. Moreover, *Infrastructure* is highly correlated with *Human Impact* as an expansion of the infrastructural network almost always leads to an increased impact on nature and environment. *Situational Orientation* also shows a considerable correlation with Contractual Issues as the opinion regarding uncertainty moments and innovation and performance improvement as well as adherence to tradition may influence the design of contracts.

Yet, the categorization in the different sub-classes provides a useful framework to select the indices. An approach merging the highly correlated components is not desirable as these categories, although logically interlinked, still describe diverse issues. However, it is a matter of fact, that technology and the opinion towards progress and uncertainty situations will influence the development of economy and the conservation of nature and the standards of infrastructure. The choice of one of two connected sub-categories should be guided by the relative importance of each of the subjects for the problem at hand. Sometimes a further evaluation of the correlation between two indices of highly correlated components may reveal that, although, the components are highly correlated, the two indices selected only show a reasonable correlation.

8. Practical Application

This chapter will introduce the practical use of the proposed framework. Thus, two hypothetical cases will be analysed using a subset of the indices. For both imaginary firms the countries under investigation are pre-screened to exclude countries with unfavourable business environments beforehand. The remaining countries will enter the actual cluster analysis to form country groups for market selection and market entry. A detailed explanation of the selection of the indices should enhance the further understanding of the framework. The results for the two firms are then compared and differences are discussed.

8.1 The hypothetical firms

Two hypothetical companies are introduced to show the impact of applying the proposed framework on market entry and segmentation decisions to screen and effectively group countries. Principally, the two firms Fruity Inc. and Fashionista Inc. belong to two different industries producing either nondurable goods (Fruity) or durable (Fashionista)⁷² to illustrate the selection of adequate variables from the aforementioned framework for different product markets. Fruity Inc. is a company operating in the food sector producing mainly fruit juices and wellness drinks on a fruit basis. Fashionista Inc. represents a fashion firm manufacturing clothes in the medium range price segment. To enhance the comparability of the results current markets and expansion plans are the same for the two companies. Fruity Inc. as well as Fashionista Inc. are internationally operating firms with headquarters in Austria. Fashionista Inc. additionally has two local design offices in Paris, France, and Milan, Italy, to capture the newest trends in fashion. The markets currently served include the German-speaking countries Austria, Germany and Switzerland as well as the Roman countries Italy and France. In the near future Fashionista Inc. and Fruity Inc. plan to expand their operations beyond these current

⁷² Nondurable goods are tangible goods generally consumed in one or a few uses. As they are bought frequently and purchases quickly they should be available in many locations, e.g. drinks (juice, beer), soap

Durable goods are tangible goods that survive many uses and require more personal selling and service, e.g. clothing, refrigerators.

Kotler, Philip (2003), Marketing Management (11 ed.). Upper Saddle River, NJ: Prentice Hall.

markets opting for East Europe, North America (including Mexico), large countries in Asia and Oceania as well as North Africa and Middle East apart from generally prosperous countries in Europe.

The subsequent analysis should provide country clustering solutions for the country grouping approaches and market entry scenarios of the companies. In the following sections the situations of the two hypothetical cases are described into further detail.

8.1.1 Fruity Inc.

Fruity Inc. manufactures fresh vegetables, fruits and fruit concentrates into fruit juices, nectars and wellness drinks like smoothies. The firm is one of the largest competitors in the industry maintaining production sites in Austria, Italy and Spain. As the growth potential for juices in the present markets is exploited expansion strategies should enhance the firm's growth and revenues.

Currently, products are allocated to the markets via wholesalers and large supermarket chains. Production is concentrated in the three company-owned production facilities. New markets should also be conquered via large wholesale partners and supermarket chains. Establishing additional production plants or outsourcing of production to local manufacturers on the other hand are possible scenarios. The following regions are considered highly attractive to realize potential growth opportunities.

Western and Northern Europe are characterized by rather wealthy countries with a large variety of product offers. Although, these markets tend to be already saturated they generally offer a similar economic environment and a higher spending capacity of consumers for wellness foods and drinks.

Eastern European markets are considered to be fast growing markets with rising income per capita and an increased demand for highly qualitative food and drinks. As a major part only previously joined the European Union market entry barriers are low and free trade flow enhances business.

North America represents a rather large market with fierce competition, especially in the sector of citrus fruits and wellness drinks. However, a successful market entry would provide a large growth potential for Fruity.

Large countries in *Asia and in Oceania* offer appealing growth perspectives for several different reasons. Firstly, countries like China or India represent growing markets with economies developing at a fast pace. However, these markets are still risky, due to political hazards and diverse culture and business habits. Secondly, Australia and New Zealand offer similar market conditions like Western countries, but geographic and environmental circumstances may constrict market penetration. Additionally, import and quarantine regulations are very strict in these countries.

Eventually, *Middle East and North African* countries represent attractive markets due to their prevalently Muslim population. As the consumption of alcohol is prohibited in Islam fruit juices are often served as refreshments and to accompany meals. Still, religious extremism, tumults and political conditions like dictatorships may jeopardize a firm's operations.

8.1.2 Fashionista Inc.

Fashionista Inc. is a major player in the fashion business in several European countries. Basically, the firm stands for high quality, fashionable clothes at reasonable prices. In present markets tops cost between 15 and 50 Euros, dresses between 50 and 150 Euros and the price for trousers ranges between 50 and 100 Euros. The clothes are mostly manufactured by local partners in Asian countries like Cambodia, India and China. Over the next decade Fashionista plans to pursue new markets and to become an internationally known trademark.

Presently, distribution channels in existing markets comprise catalogue shopping, online shopping via the company homepage, several flagship stores and a few franchising enterprises. In future markets the firm emphasizes catalogue as well as online shopping and flagship stores to enhance brand awareness. Later on franchising is a plausible alternative. Like in current markets extensive print and TV advertisements should boost sales and brand awareness. The following markets are considered auspicious regarding successful market entry.

Western and Northern Europe comprise rather wealthy countries with a huge range of clothing and fashion products. Although, these markets tend to be already saturated they generally provide similar economic conditions and an elevated interest as well as spending capacity of consumers for fashion and clothing.

Eastern Europe represents a growing market with increasing income per capita. Western goods communicate high quality, style and prestige. Especially among young women the awareness and interest for fashion is extraordinary high. The membership in the European Union of a major part of these countries is a further advantage.

North America is a rather large market with harsh competition but also an elevated interest in style and fashion, particularly in urban and coastal areas like New York or California.

In sizeable *Asian* markets like China and India an early market entry may guarantee a successful market penetration as they are assumed to grow over the next decades. Increased competitiveness of these countries may lead to increased income for households and therefore, millions of new consumers will challenge the market. Still, different business habits, traditions and cultures have to be considered carefully, especially concerning clothing rules. Countries in *Oceania* like Australia and New Zealand represent attractive markets probably similar to Western countries and characterized by a distinctive fashion consciousness among women.

Middle East and North Africa are challenging markets regarding clothes. In many of the countries tradition and religion still play a major role in life and education. Therefore, offerings have to be adapted to local tastes and requirements. Yet, middle Eastern and North Africa represent fascinating markets as the young generation of women is interested in fashion and physical appearance.

8.1.3 Clustering approach – a brief outline

The countries from the major areas of the worlds discussed above will be screened using the indices loading very high on the respective component derived in the principal component analysis discussed in chapter 7.1.3. Generally, the indices showing the highest loading are thought to best describe the general level of different aspects of the business environment in a country. The components considered for the pre-screening step are selected according to the rough guide concerning the use of relevant dimensions based on correlations provided in Table 7.18. However, the relevancy of dimensions for the situation at hand also plays a major role in the selection of dimensions for the pre-screening step. A pre-screening step, like suggested by Johansson (1997) and Peterson and Malhotra (2000), identifies countries revealing a very unfavorable market

environment for the purposes of the firm which are therefore eliminated from further analysis. The actual formation of country clusters for market selection purposes is based on variables selected with regards to their justifiable subjective adequacy for the problem at hand.

8.2 Market Segmentation Fruit Juices

First of all, the results of the pre-screening procedure will be outlined and the exclusion of the cluster with the less promising countries will be discussed. The choice of variables to form the country groupings is explained with regards to the situation and products of Fruity Inc. Thereafter, two clustering approaches, one including and one excluding religion from the data set for segmentation, are used for the segmentation of the fruit juice market to examine similarities and differences of cluster approaches integrating and those excluding religious beliefs.

8.2.1 Pre-screening of countries

The pre-screening of the 72 countries in the regions of the world that are of interest for Fruity's market expansion plans yields three fairly large country groupings displayed in the Viscovery Profiler output in Figure C.1 and in Figure C.2 depicting also the values of the different variables within the clusters. The variables, the corresponding dimensions are given in brackets, included in the analysis are: Globalization Index (General), Life Expectancy (Demographic), Gender-related Development Index (Social), Failed States Index (Political), GDP/Capita (Economic Competitiveness), Imports (Trade), Televisions/1000 (Infrastructural), Total Tax Payable (General Legal Environment), Enforcing Contracts (Contractual Issues), Power Distance (Interactive Orientation & Tradition), Uncertainty Avoidance (Situational Orientation), Masculinity/Femininity (Competitive Orientation) and Humane Orientation Values (Human Orientation). GDP/Capita and Televisions/1000 are both included in the analysis, although the indices ($r=0.743$, $p<0.01$) as well as dimensions ($r=0.653$, $p<0.01$) correlate rather high, due to the consideration that although both assess the level of economic well-being, GDP/capita is an appropriate measure for the general level of well-being whereas Television/1000 may additionally convey information about the importance of television and provide input for advertising strategies. The weights of importance for the two indices are automatically reduced in the analysis to account for potential outcome biases. Contractual Issues and Situational Orientation correlate

considerably high too ($r=0.703$, $p<0.01$), however the two indices Enforcing contracts and Uncertainty avoidance show a rather low correlation ($r=0.306$, $p<0.05$) and therefore, should not affect the outcome of the analysis in either way.

In several instances not the highest loading attributes were selected from the dimensions for the pre-screening analysis as the variable with the second-highest loading is perceived to have a potentially greater importance for market selection and market entry with regards to the products and expansion strategies of the company, e.g. Total Tax Payable and Power Distance. The Failed States Index was selected for the analysis because it provides information about the actual political stability for a large number of countries compared to the Press Freedom Index, which is rather a measure of the restrictiveness of the political environment, and the Bertelsmann indices, which are available only for countries in transition.

Table 8.1 Pre-screening country groupings Fruit Juices

Cluster 1	Cluster 2	Cluster 3
Lithuania	Italy	Russia
Macedonia, FYR	France	Morocco
Malta	Greece	Tunisia
Iraq	Qatar	Libya
Bosnia Herzegovina	Spain	India
Taiwan	Portugal	Iran
Moldova	Japan	Yemen
Estonia	Switzerland	Belarus
Bahrain	Germany	China
Thailand	Belgium	Pakistan
Jordan	Czech Republic	Romania
Malaysia	Hungary	Syrian Arab Republic
Latvia	Austria	Ukraine
Croatia	United Kingdom	Algeria
Bulgaria	Israel	Turkey
Iceland	Luxembourg	Albania
Cyprus	United States	Mexico
Saudi Arabia	Canada	Egypt
Poland	Ireland	Lebanon
Slovak Republic	Hong Kong	Indonesia
New Zealand	Australia	
Kuwait	Finland	
Oman	Norway	
United Arab Emirates	Denmark	
Slovenia	Netherlands	
	Singapore	
	Sweden	

The first cluster comprises 25 geographically dispersed countries mainly from Eastern Europe, former Yugoslavia, the Middle East and Southeastern Asia. Surprisingly, also New Zealand, Iceland, Cyprus and Taiwan are assigned to this cluster. The second cluster groups 27 developed countries from Europe, Asia, America and Oceania together. In the third cluster there are 20 mainly poor countries with oppressive political environments from Northern Africa, Southern Asia and the former Soviet Union.

Cluster 1 – Transition economies

Most of the countries in this cluster have a difficult history of war, e.g. the former Yugoslavian countries, Communist regime, e.g. Slovak Republic, Bulgaria, Malaysia and political tumults as well as military coups, e.g. Thailand. Therefore, the political situation in most of these countries is still rather strained and instable. Iraq, the country scoring highest on the Failed States Index in the world, is also assigned to this cluster, although recent developments of war and anarchy render it a rather unfavorable country for market entry. However, the countries offer an increased growth potential in the future for a firm due to a low tax burden and a reasonable income per capita. Foreign investments, products and firms are generally accepted and the demand for foreign products is rather high. Laws and regulations within these countries provide enough guidance to establish business operations and to solve legal problems within a passable period of time. Countries within this cluster score high on Power Distance indicating that status symbols and visible signs of authority play a major role in everyday life. By and large self-interest, self-enhancement and pleasure have a superior role within society whereas values regarding the well-being of others and material, financial and social support for family members and friends are rated less important.

Iceland and Cyprus show similarities with the other countries assigned to Cluster 1, however, several indices on economic and legal issues as well as the Hofstede scores are not available for the two countries. For Taiwan quite a few indices on economic and political issues are missing as Taiwan is still considered a part of China. On the basis of the available variables Taiwan shows substantial commonalities with the other countries in Cluster 1. New Zealand would generally be assigned to Cluster 2 at the first glance. However, a rather low GDP/Capita compared to the countries in Cluster 2, a smaller degree of globalization as well as a low score on Humane Orientation Values seem to explain the classification in Cluster 1.

Table 8.2 Pre-screening step Fruit Juices: Cluster 1 statistics

Attribute	Mean	Std. Dev.	Min	Max	Missing Values
Globalization Index	65.8	7.0	51.7	78.2	5 (20.00%)
Life Expectancy	75.1	2.9	69.3	80.4	1 (4.00%)
Gender-related Development Index	0.8	0.1	0.7	1.0	4 (16.00%)
Failed States Index	59.9	20.4	20.5	111.4	1 (4.00%)
Enforcing Contracts	389.6	229.2	50.0	980.0	3 (12.00%)
Television/1000	358.2	155.7	67.1	702.6	2 (8.00%)
Tax Payable	0.3	0.1	0.1	0.5	3 (12.00%)
GDP/Capita	13652.0	9420.0	1055.0	34283.0	2 (8.00%)
Imports of goods and services	0.7	0.2	0.3	1.0	3 (12.00%)
Power Distance	65.1	26.6	22.0	104.0	16 (64.00%)
Uncertainty Avoidance	67.0	20.7	36.0	96.0	16 (64.00%)
Masculinity/Femininity	53.1	23.9	30.0	110.0	16 (64.00%)
Conservatism	4.3	0.2	3.7	4.5	16 (64.00%)
Human Orientation Values	5.1	0.3	4.5	5.5	18 (72.00%)

Cluster 2 – Developed countries

The majority of the countries within Cluster 2 are developed, rich countries from the European Union (except Norway), e.g. Austria, Finland, Sweden, and economically strong overseas markets, e.g. Australia, Japan, United States. Countries like Portugal, Spain and Israel are developed Western countries mainly engaged in agricultural production and the export of agricultural products. Hungary and the Czech Republic have a low GDP/Capita compared to the other countries within this cluster due to their communist background, however, they are the farthest developed countries from Eastern Europe with stable governments benefiting from subsidies distributed by the European Union.

A stable political situation and reasonable laws to regulate the business environment offer the opportunity for market entry usually low in risk regarding expropriation and drastic changes of political conditions. Only Israel is characterized by an increased political risk deriving from the historically and religiously motivated tumults with Palestina. Yet, the tax burden on companies is rather high in these countries hampering the growth potential and significantly reducing profit margins of companies. In general, foreign investments and especially foreign products are, however, well accepted and often serve as symbols for the generally high level of economic well-being. High living standards and an exceptional sanitary infrastructure in the countries assigned to Cluster 2 lead to an elevated life expectancy and thus society is obsolescing. Women and men are predominantly treated as equals with the same rights and opportunities concerning

income and school education. By and large, inequality is considered a necessary evil and a sound legitimization for the use of power is required. Caring for the well-being of others, especially helping family and friends are evaluated as very desirable.

The classification of Qatar, Luxembourg, Hong Kong and Singapore within Cluster 2 should be considered with caution as information on numerous indices is missing and therefore, their cluster assignment is only based on the information available.

Table 8.3 Pre-screening step Fruit Juices: Cluster 2 statistics

Attribute	Mean	Std. Dev.	Min	Max	Missing Values
Globalization Index	82.6	6.4	64.2	92.0	2 (7.14%)
Life Expectancy	79.2	2.1	72.9	82.0	0 (0.00%)
Gender-related Development Index	0.9	0.0	0.9	1.0	3 (10.71%)
Failed States Index	32.8	13.4	17.1	79.6	1 (3.57%)
Enforcing Contracts	204.3	128.2	48.0	585.0	3 (10.71%)
Television/1000	465.9	140.2	238.1	740.5	0 (0.00%)
Tax Payable	0.5	0.1	0.2	0.8	1 (3.57%)
GDP/Capita	34041.0	9604.0	12433.0	46400.0	6 (21.43%)
Imports of goods and services	0.5	0.3	0.1	1.4	3 (10.71%)
Power Distance	44.4	17.9	11.0	74.0	1 (3.57%)
Uncertainty Avoidance	60.1	27.9	8.0	112.0	1 (3.57%)
Masculinity/Femininity	51.1	22.9	5.0	95.0	1 (3.57%)
Conservatism	3.8	0.3	3.3	4.4	10 (35.71%)
Human Orientation Values	5.5	0.2	5.2	5.8	4 (14.29%)

Cluster 3 – Risk markets

Countries in Cluster 3 are generally countries that have non-democratic or very instable governments, often dictatorships, military juntas and Communist regimes. The business environment in these countries is considered highly insecure due to the potential, rapid changes of governments, tumults or the dependency on the caprices of an established leader. On the whole the opinion towards foreign investments and companies as well as products is rather restrained if not hostile. Therefore, imports of foreign products are scarce. The economic and social well-being is generally depressed compared to the countries in Cluster 1 and Cluster 2 as the income per capita is rather low. Opportunities regarding education and income are generally less common for women than for men and there are well-defined differences between the role of men and women within society. Traditions and harmonious interpersonal relations play an important role in everyday life. Self-enhancement, self-enjoyment and self-interest are not honored as the enhancement of the well-being of family and friends is preferred. Personal interactions are shaped by strict hierarchies and visible status symbols.

Surprisingly, Mexico is grouped together with countries with very oppressive governments rather than with the transition economies from Cluster 1. Maybe this is due to the fact, that, even though, Mexico and also Indonesia hold democratic elections they have to fight various economic and social problems within their country and therefore are assigned to Cluster 3. Mexico scores very low on the Globalization Index and economic turmoil in the 1990s led to a large recession. Underemployment and unequal distribution of income as well as corruption and increasing crime rate are only several of the issues the country has to overcome. Indonesia's government is still not well-established after a long period of authoritarianism and faces an augmenting poverty rate, terrorism and separatist movements. A history of authoritarian regimes, military coups and separatist movements still affects the stability of the government. The classification of Romania in Cluster 3 seems strange too at a first glance. However, although richer and politically quite stable, Romania exhibits a low level of globalization and gender development as gender roles are clearly defined. Hierarchical relationships and status symbols communicating power play a significant role in everyday life as well as the care for others like family and friends. Hence, Romania shares more commonalities with the countries in Cluster 3 than with the countries in Cluster 1, especially with regards to inherent values in society (CIA 2008).

Table 8.4 Pre-screening step Fruit Juices: Cluster 3 statistics

Attribute	Mean	Std. Dev.	Min	Max	Missing Values
Globalization Index	53.3	9.8	35.2	69.9	4 (20.00%)
Life Expectancy	71.1	4.0	62.5	77.6	0 (0.00%)
Gender-related Development Index	0.7	0.1	0.4	0.8	3 (15.00%)
Failed States Index	79.3	10.2	60.9	100.1	0 (0.00%)
Enforcing Contracts	384.9	162.9	27.0	721.0	1 (5.00%)
Television/1000	171.3	125.0	19.1	421.8	0 (0.00%)
Tax Payable	0.5	0.1	0.4	0.7	2 (10.00%)
GDP/Capita	3904.0	2800.0	772.0	9977.0	0 (0.00%)
Imports of goods and services	0.4	0.1	0.2	0.6	0 (0.00%)
Power Distance	74.8	12.6	55.0	93.0	10 (50.00%)
Uncertainty Avoidance	66.7	22.1	30.0	95.0	10 (50.00%)
Masculinity/Femininity	50.6	10.6	36.0	69.0	10 (50.00%)
Conservatism	4.1	0.2	4.0	4.3	17 (85.00%)
Human Orientation Values	5.4	0.2	5.1	5.6	10 (50.00%)

The countries in Cluster 3 represent predominantly risky and politically instable markets. Society and personal interactions are shaped by traditions and hierarchical systems. The general opinion towards foreign goods and investments is restrained and may change rapidly with the inauguration of a new government or leader. Hence, the

countries in Cluster 3 are considered too insecure for successful market entry and are therefore, excluded from further analysis.

8.2.2 Selection of variables for market segmentation

After the evaluation of the economic, social and political risk potential of countries the remaining 52 countries will be further investigated to identify the most promising markets for fruit juices. Attributes are now selected to assess market features regarding economic well-being, infrastructure and cultural inherent values helping the firm to develop appropriate marketing strategies and to determine the markets for market entry or successive micro-segmentation. The considerations guiding the selection of the 11 items in the present case will be highlighted to provide guidance for the practical use in marketing of the variables retrieved from various international data sources.

Population below poverty line

Population below poverty line sheds light on the social as well as economic situation in a country insofar that it gives a hint about distribution of income and the general economic well-being of the population of a country. Fruit Juices are generally not very expensive; however, they are not a necessary good to survive. A high percentage of population below poverty indicates that a large part of the population may not even have access to improved water sources and other necessities; therefore, they will not be willing to spend their scarce resources on fruit juices and wellness drinks.

Household Size

The number of people living under the same roof forming a family provides valuable information for the marketer about the required size of packages and the feasibility of discounts on large quantities and multi-packs. Household size may also serve as an indicator for the importance of the family in society and may assist the development of advertising themes.

Strength of Legal Rights Index

This index is included to assess the extent to which collateral and bankruptcy laws protect the rights of debtors and creditors to facilitate lending in order to assess the access to credits as well as the attractiveness of establishing new production sites and distribution networks with local partners.

Days to start a business

To evaluate the time to market and to evaluate the possibility of a quick market entry the legal requirements and bureaucratic difficulties are assessed in terms of days needed to complete all required legal steps to establish business operations in a country.

Television/1000

The number of televisions per 1000 people provides a valuable input for promotion strategies regarding the selection of media channels for advertising and the media coverage of television spots. Additionally, this figure may give a general impression about the infrastructure in a country.

Global Competitiveness Index

The Global Competitiveness Index makes part of the data set to evaluate the level of economic development, a country's productivity and its competitiveness as well as the sophistication of established businesses. Hence, the level of development of local firms may provide insights regarding the fierceness and superiority of local competition in a country.

Imports of goods and services

This measure helps to determine the amount of foreign goods already imported into a country and may give a hint about the market size and general acceptance of foreign products in society. As a result a company may design its marketing strategy to appear either international or local.

Masculinity/Femininity

The Hofstede dimension may provide input about the person in the family making purchase decisions and administering the family budget as Masculinity/Femininity assesses the degree of distinction between gender roles. Additionally, valuable insights about inherent cultural values, e.g. achievement, competition or compassion and modesty, may shape advertising themes.

Conservatism

Like the dimension of Masculinity/Femininity Conservatism assesses cultural values, that may have an influence on the perception of advertisements. Conservatism assists in evaluating the importance of traditions and obedient behavior towards elder members of society as well as the value assigned to interpersonal relations and one's participation in society.

Harmony

Harmony emphasizes a life in harmony with nature and may serve as a measure of demand for biological products and the opinion towards artificial additives in food and drinks as well as providing information about the amount and kind of packaging material, e.g. recyclable materials to preserve the environment.

Humane Orientation Practices

Humane Orientation Practices may provide interesting information for marketers and sales people about the way people interact with each other, which behaviors are considered rude or inappropriate and which characteristics are deemed highly desirable to design thriving advertising strategies as well as to lead successful negotiations with wholesalers.

8.2.3 Country Clusters

The 11 variables selected are then used to segment the international market considered for market entry. Basically, three clusters emerge from the analysis. Cluster 1 is a very international cluster with 22 countries from Europe, Asia, North America and Oceania. Cluster 2 mainly groups together 19 countries from Europe with the exception of Bahrain and Taiwan. Cluster 3 represents the remaining 11 countries predominantly from the Middle East except for three countries from Eastern Europe and Ex-Yugoslavia. In Figure C.3 and in Figure C.4 the clusters as well as the scores of the attributes within each cluster are depicted graphically.

Table 8.5 Country groupings Fruit Juices

Cluster 1	Cluster 2	Cluster 3
Netherlands	France	Slovak Republic
Denmark	Germany	Macedonia
United States	Spain	Moldova
Japan	Switzerland	Jordan
United Kingdom	Greece	Bosnia Herzegovina
Singapore	Austria	Kuwait
Hong Kong	Cyprus	Saudi Arabia
Israel	Croatia	United Arab Emirates
Norway	Italy	Qatar
Sweden	Hungary	Oman
Canada	Bahrain	Iraq
Australia	Lithuania	
New Zealand	Malta	
Iceland	Belgium	
Latvia	Slovenia	
Luxembourg	Estonia	
Ireland	Taiwan	
Finland	Bulgaria	
Malaysia	Poland	
Portugal		
Czech Republic		
Thailand		

Cluster 1

Interestingly, the countries in this cluster exhibit very different levels of economic development in terms of GDP per capita, from \$ 3304 in Thailand to \$ 46900 in Sweden. However, the percentage of people below the poverty line is rather low in all of these countries except in Israel, where more than 20% of the population is considered poor. Although, the percentage of population below poverty is only available for a small number of countries in Cluster 1, the results can be still interpreted as most missing values concern countries like Finland, Sweden and Norway where the poverty rate is expected to converge toward zero. One has to bear in mind that the classification of poor people may vary between rather rich and rather poor countries, but generally these markets would offer a considerable market for fruit juice regarding the level of economic wealth. Well-designed bankruptcy and credit laws facilitate the establishment and operation of new production sites with local partners as legal steps in the case of bankruptcy of the local partner are clearly outlined. It only takes a few days to fulfill all the registration requirements to start a business, which may enable a relatively quick start for market entry. However, most of the countries offer a highly competitive

platform for foreign firms as it provides a productive and very sophisticated business environment, although a sizeable amount of goods is imported from abroad. A reasonable number of televisions per 1000 people favors television advertisements to communicate the brand and the product image, e.g. a vitamin fruit juice for active kids, a sport drink to regain power after training or a wellness drink for weight-conscious women. The Nordic countries in this cluster score low on Masculinity/Femininity indicating that social gender roles overlap and compassion and care for underdogs plays a major role. Countries like the United States, Japan, Great Britain and Ireland score rather high on Masculinity indicating that competitiveness and achievement are valued highly in these societies. Hence, a standardized advertising strategy may not be feasible and more or less drastic adaptations may be required. For the Nordic countries a caring parent bringing a vitamin juice for the ill child may be perfectly customized whereas in high masculine cultures a child winning a soccer tournament due to his daily vitamin fruit juice in the morning may be a better approach. Care about the environment is not a big issue in the countries of Cluster 1, thus a distribution in plastic containers may be considered, whereas recyclable materials like glass or tetrapak may not make much sense, because the awareness for recycling reusable materials is limited.

On the whole, the countries in this cluster represent relatively attractive markets for market entry as the general economic well-being enable people to buy also non-necessary food items and environmental requirements for packaging are rather low. Anyway, market entry may be difficult due to a rather competitive environment and well developed local firms. However, a local partner with know-how about market conditions may clear the way for a successful market entry. Smaller sub-clusters may have to be identified to formulate advertising themes depicting inherent cultural values, traditions and beliefs.

Table 8.6 Market Segmentation Fruit Juices: Cluster 1 Statistics

Attribute	Mean	Std. Dev.	Min	Max	Missing Values
Population below poverty line	0.1	0.1	0.1	0.2	16 (69.57%)
Household Size	3.0	0.8	2.0	4.5	4 (17.39%)
Legal Rights Index	7.6	1.6	5.0	10.0	1 (4.35%)
Days to start a business	13.5	9.1	2.0	34.0	0 (0.00%)
Television/1000	460.5	145.6	236.7	740.5	0 (0.00%)
Global Competitiveness Index	5.3	0.4	4.6	5.8	0 (0.00%)
Imports of goods and services	0.5	0.3	0.1	1.4	3 (13.04%)
Masculinity/Femininity	45.4	22.4	5.0	95.0	2 (8.70%)
Conservatism	4.0	0.3	3.6	4.5	9 (39.13%)
Harmony	3.9	0.4	3.0	4.5	9 (39.13%)
Human Orientation Practices	4.2	0.4	3.5	5.0	5 (21.74%)

Cluster 2

Generally, most countries in Cluster 2 generate a GDP per capita between \$ 10000 (Lithuania) and almost \$ 39000 (France). The only country displaying a much lower GDP is Bulgaria (\$ 4704). Anyway, the 19 countries within this cluster definitively exhibit similarities regarding the legal environment. Credit and bankruptcy laws are regulated rather vague and several occurrences in the case of bankruptcy are not discussed exhaustively in national laws. It takes approximately twice as long to file in all the necessary registration requirements to start a business compared to Cluster 1. Usually, the countries are characterized by a relatively high productivity and competitive markets. Therefore, entering these markets may represent quite a challenge due to the sophistication of local companies and already established foreign firms. Again television spots may be an effective way to increase the brand awareness of Fruity Inc. as nearly every second person out of 1000 has a TV set and is expected to spend several hours a day in front of it. Even though society classifies a caring, altruistic, generous personality as desirable, these values are not really acted out in real life. A striving for self-enhancement, self-enjoyment and pleasure is more important than caring for others and shapes the interaction of members of society and. An advertisement depicting a person in a Spa taking a sip of a wellness drink with fruits while having a special treatment may be tailor-made to communicate a feeling of indulging oneself, enjoyment, and pleasure. Environmental issues and harmony with nature enjoy an increasing importance in these countries, although the awareness is in some countries more in others less developed. Therefore, organic juices without additives and the use of containers made of glass or tetrapak that are recyclable after use, may be relevant product variants for these markets.

Cluster 2 comprises the five countries Fruity Inc. already operates in. Hence, the company is acquainted with similar legal and economic conditions. When moving to other markets Fruity Inc. may use its knowledge gained in previous markets to win also competitive markets similar to the markets already served.

Table 8.7 Market Segmentation Fruit Juices: Cluster 2 Statistics

Attribute	Mean	Std. Dev.	Min	Max	Missing Values
Population below poverty line	0.1	0.1	0.0	0.2	6 (31.58%)
Household Size	2.7	0.4	2.1	3.3	4 (21.05%)
Legal Rights Index	4.7	1.5	3.0	8.0	3 (15.79%)
Days to start a business	27.2	16.4	4.0	60.0	3 (15.79%)
Television/1000	446.5	115.7	238.1	702.6	1 (5.26%)
Global Competitiveness Index	4.8	0.5	4.0	5.8	0 (0.00%)
Imports of goods and services	0.6	0.2	0.3	0.9	2 (10.53%)
Masculinity/Femininity	56.8	16.7	30.0	88.0	5 (26.32%)
Conservatism	3.9	0.4	3.3	4.4	7 (36.84%)
Harmony	4.5	0.2	4.1	4.8	7 (36.84%)
Human Orientation Practices	3.6	0.3	3.2	4.1	8 (42.11%)

Cluster 3

Missing data is quite an issue in this cluster. Especially, Hofstede, Schwartz and GLOBE values are not available for a majority of the countries and, hence, cannot be interpreted. For other measures like Population below poverty line and Household Size the problem is similar as data, predominantly for the small countries, are missing. However, the markets assigned to Cluster 3 seem to share several commonalities regarding economic development and legal environment. It needs considerably more time to fulfill all the necessary registering procedures to start a business than in the countries in Cluster 1 and Cluster 2. Generally, there are relatively sound bankruptcy and credit laws to facilitate lending, however, several issues occurring in the case of bankruptcy are still not clearly defined. The countries within this cluster score rather low on the Global Competitiveness Index indicating that the sophistication of local businesses and the productivity of the countries is rather low. Except for the Middle Eastern countries of Kuwait, Oman, Saudi Arabia and Qatar imported products are quite common. The low number of televisions per capita would render the communication of product features via TV difficult. Other advertising media like radio, print, megaboards and others have to be investigated to determine the feasibility for the markets under investigation. The pretty large average household size indicates close family ties and an increased importance of the extended family. Furthermore, it may give a hint about the

large amount of fruit juice consumed within one household suggesting that rather large packages may be demanded.

Although hardly any cultural values are available for the countries, mostly Middle Eastern countries are assembled in Cluster 3, except for the Slovak Republic, Macedonia, Bosnia-Herzegovina and Moldova, which, however, seem to share the level of economic development. Iraq is clustered with the other 10 countries, but the political developments as well as war and anarchy situations do not actually qualify Iraq as a successful market for fruit juices. In general, the countries of Cluster 3 all represent rather small and difficult markets characterized by significant cultural differences compared to the home market of the firm.

Table 8.8 Market Segmentation Fruit Juices: Cluster 3 Statistics

Attribute	Mean	Std. Dev.	Min	Max	Missing Values
Population below poverty line	0.2	0.1	0.1	0.3	5 (45.45%)
Household Size	6.2	1.4	3.6	7.7	5 (45.45%)
Legal Rights Index	5.5	1.9	3.0	9.0	1 (9.09%)
Days to start a business	35.5	22.1	14.0	77.0	1 (9.09%)
Television/1000	265.7	159.3	67.1	533.0	1 (9.09%)
Global Competitiveness Index	4.2	0.4	3.7	4.7	3 (27.27%)
Imports of goods and services	0.6	0.3	0.3	1.0	1 (9.09%)
Masculinity/Femininity	110.0	0.0	110.0	110.0	10 (90.91%)
Conservatism	4.3	0.0	4.3	4.3	10 (90.91%)
Harmony	4.4	0.0	4.4	4.4	10 (90.91%)
Human Orientation Practices	4.5	0.1	4.4	4.5	9 (81.82%)

According to the approach of successive market entry suggested by Herbig and Kramer (1994) and Peterson and Malhotra (2000) Fruity Inc. may start to expand to other countries within Cluster 2 as these countries offer a very similar business environment to present markets regarding the characteristics under investigation. After all relevant countries in Cluster 2 are successfully entered the firm may move on to select countries from Cluster 1 as the two clusters are quite similar in several aspects. The countries aggregated in Cluster 3 offer quite different conditions and may, thus, be the markets most difficult to enter.

8.2.4 Country Clusters including religion

To examine the effect of religion on the clustering outcome three world religions were added to the set of 11 variables used in the previous analysis. Christianity was included as it represents the largest religious group in the world taking into consideration also all

its sub-groups. Islam is thought to have a potential impact on demand for fruit juices as alcohol is forbidden and fruit juice may serve as a refreshment accompanying meals instead of wine for example. Judaism was selected, even though in most countries there are no or only a few representatives of this religion, as dietary requirements regarding “kosher food” may influence the demand for refreshment drinks and smoothies containing dairy products to accompany the meals. Buddhism and Hinduism are rather local religions in several parts of Asia, however, they are classified as having a minor impact on the production of fruit juice.

Like in the previous solution without considering religion as a segmentation variable three clusters are identified. Generally, countries are also assigned to the same cluster except for five countries from Cluster 2 which moved to Cluster 1 and Cluster 3. Therefore, Cluster 1 is now the definitely largest cluster consisting of 25 countries from Europe, North America, Asia and Oceania. Cluster 2 is slightly smaller than in the solution without accounting for religions and comprises 14 European countries. Cluster 3 groups together all Middle Eastern countries - except Israel, which is a member of Cluster 1 - as well as countries from Ex-Yugoslavia, the Slovak Republic and Moldova.

Table 8.9 Country groupings (incl. religion) Fruit Juices

Cluster 1	Cluster 2	Cluster 3
Netherlands	Estonia	Jordan
Sweden	Belgium	Bahrain
Denmark	Hungary	Bosnia Herzegovina
United States	Slovenia	Oman
Japan	Austria	Cyprus
United Kingdom	Lithuania	Kuwait
Singapore	France	Qatar
Australia	Italy	Macedonia
Latvia	Croatia	Saudi Arabia
Iceland	Switzerland	Iraq
Canada	Spain	Slovak Republic
Hong Kong	Germany	Moldova
Israel	Poland	United Arab Emirates
New Zealand	Greece	
Finland		
Malaysia		
Norway		
Taiwan		
Malta		
Czech Republic		
Ireland		
Portugal		
Luxembourg		
Thailand		
Bulgaria		

Cluster 1 – Diversity of religious beliefs

The countries originally aggregated in Cluster 1 in the previous solution for the market segmentation for fruit juices are amended by three countries, namely Taiwan, Malta and Bulgaria. Generally the countries within this cluster are characterized by a mix of different religions. In several countries like USA, Australia and Great Britain still a majority of inhabitants is Christian, but also the percentage of other religions is considerable. Israel is the only country, where the majority of the population, namely 80%, is Jewish, but also the USA has a considerable population of Jews (almost 2% of the US American population). In Australia and New Zealand only about half of the population is actually a member of one of the world religions while ancient beliefs of the aboriginal people are still quite common. Other countries like Japan, Taiwan and Thailand have a very low amount of Christians as they are predominantly Buddhist countries. Malaysia for example has a large Muslim population but also 40% of Christians, Hindus and Buddhists. The only countries that are mainly Christian without any other considerable religious influences in Cluster 1 are Malta and the Nordic

countries Sweden, Finland and Norway. There is no information available for religious beliefs in Latvia maybe due to its history as a part of the Communist Soviet Bloc.

Table 8.10 Market segmentation (incl. religion) Fruit Juices: Cluster 1 Statistics

Attribute	Mean	Std. Dev.	Min	Max	Missing Values
Population below poverty line	0.1	0.1	0.0	0.2	17 (65.38%)
Household Size	3.0	0.8	2.0	4.5	6 (23.08%)
Legal Rights Index	7.3	1.7	4.0	10.0	2 (7.69%)
Days to start a business	15.6	11.6	2.0	48.0	1 (3.85%)
Television/1000	466.2	145.6	236.7	740.5	0 (0.00%)
Global Competitiveness Index	5.2	0.5	4.0	5.8	0 (0.00%)
Imports of goods and services	0.5	0.3	0.1	1.4	4 (15.38%)
Masculinity/Femininity	45.2	20.9	5.0	95.0	2 (7.69%)
Conservatism	4.0	0.3	3.6	4.5	10 (38.46%)
Harmony	3.9	0.4	3.0	4.5	10 (38.46%)
Human Orientation Practices	4.2	0.4	3.5	5.0	7 (26.92%)
Christianity	0.6	0.4	0.0	1.0	1 (3.85%)
Islam	0.1	0.2	0.0	0.6	13 (50.00%)
Judaism	0.0	0.0	0.0	0.0	25 (96.15%)

Cluster 2 – Christian with a “dash” of Islam

Cluster 2 comprises only European countries with a majority of Christians and a small percentage of Muslims, usually below 10%. In Estonia a quarter of the population is Christian for the other part of population there is no information on the religious affiliation available, presumably due to the Communist history of the country.

Table 8.11 Market segmentation (incl. religion) Fruit Juices: Cluster 2 Statistics

Attribute	Mean	Std. Dev.	Min	Max	Missing Values
Population below poverty line	0.1	0.1	0.0	0.2	3 (21.43%)
Household Size	2.7	0.4	2.1	3.3	0 (0.00%)
Legal Rights Index	4.6	1.5	3.0	8.0	0 (0.00%)
Days to start a business	25.4	16.5	4.0	60.0	0 (0.00%)
Television/1000	436.2	109.0	238.1	623.6	0 (0.00%)
Global Competitiveness Index	4.9	0.5	4.3	5.8	0 (0.00%)
Imports of goods and services	0.5	0.2	0.3	0.9	0 (0.00%)
Masculinity/Femininity	60.3	17.2	30.0	88.0	3 (21.43%)
Conservatism	3.8	0.4	3.3	4.3	4 (28.57%)
Harmony	4.5	0.2	4.1	4.8	4 (28.57%)
Human Orientation Practices	3.5	0.2	3.2	3.8	4 (28.57%)
Christianity	0.8	0.2	0.3	1.0	0 (0.00%)
Islam	0.0	0.0	0.0	0.1	7 (50.00%)
Judaism	0.0	0.0	0.0	0.0	13 (92.86%)

Cluster 3 – A considerable portion of Islam

Most countries within Cluster 3 are characterized by a considerable Muslim population (between 20% in Cyprus and 100% in Saudi Arabia). Bahrain and Cyprus changed from Cluster 2 to Cluster 3 because of the large amount of Muslims in Bahrain and the increasing influence of Islam in Cyprus. Countries like Saudi Arabia and the United Arab Emirates are countries totally based on Islam with 100% and 96% of Muslims correspondingly. Christianity is still very common in a majority of the countries but not as dominant as in Cluster 2. Moldova and the Slovak Republic are the only countries within Cluster 3 that are predominantly Christian without Islamic influence.

Table 8.12 Market segmentation (incl. religion) Fruit Juices: Cluster 3 Statistics

Attribute	Mean	Std. Dev.	Min	Max	Missing Values
Population below poverty line	0.2	0.1	0.1	0.3	7 (53.85%)
Household Size	6.2	1.4	3.6	7.7	7 (53.85%)
Legal Rights Index	5.5	1.9	3.0	9.0	3 (23.08%)
Days to start a business	35.5	22.1	14.0	77.0	3 (23.08%)
Television/1000	277.8	156.5	67.1	533.0	2 (15.38%)
Global Competitiveness Index	4.2	0.4	3.7	4.7	3 (23.08%)
Imports of goods and services	0.6	0.3	0.3	1.0	2 (15.38%)
Masculinity/Femininity	110.0	0.0	110.0	110.0	12 (92.31%)
Conservatism	4.3	0.0	4.3	4.3	12 (92.31%)
Harmony	4.4	0.0	4.4	4.4	12 (92.31%)
Human Orientation Practices	4.5	0.1	4.4	4.5	11 (84.62%)
Christianity	0.5	0.4	0.1	1.0	4 (30.77%)
Islam	0.7	0.3	0.2	1.0	3 (23.08%)
Judaism	0.0	0.0	0.0	0.0	12 (92.31%)

8.3 Market Segmentation Fashion

The prescreening procedure is used to assess the favorability of the 72 countries for market entry with regards to their general business environment and determine countries with unfavorable conditions that are excluded from further analysis. The selection of variables for the market segmentation will be highlighted and the country groupings of the successive clustering approach will be discussed. Religion is included from the outset of the cluster approach guiding the market selection of Fashionista as several religions, especially Islam, may have a significant impact on the type of clothes that are accepted within general society.

8.3.1 Pre-screening of countries

The pre-screening of the countries considered for market entry by Fashionista results in five clusters. The visual output of Viscovery Profiler shows the cluster formation in Figure C.7 and displays the corresponding values for the selected variables within the clusters in Figure C.8. The variables, the respective dimension is given in brackets, selected for the pre-screening analysis are: Globalization Index (General), Life Expectancy (Demographic), Gender-related Development Index (Social), Press Freedom (Political), GDP/Capita (Economic Competitiveness), Imports (Trade), Phone Subscribers/1000 (Infrastructural), Rigidity of Employment Index (General Legal Environment), Enforcing Contracts (Contractual Issues), Wilderness, Individualism/Collectivism (Interactive Orientation & Tradition), Conservatism (Societal Orientation), Uncertainty Avoidance (Situational Orientation), Masculinity/Femininity (Competitive Orientation) and Humane Orientation values (Human Orientation). GDP/Capita and Phone Subscribers/1000 are both part of the analysis, although the indices ($r=0.810$, $p<0.01$) as well as dimensions ($r=0.653$, $p<0.01$) correlate rather high, because the amount of phone subscribers may provide additional information about the infrastructural development and highlight options for order and distribution networks apart from assessing the general economic well-being within a country. The weights of importance for the two indices are reduced in the analysis to account for potential outcome biases. Contractual Issues and Situational Orientation correlate rather high as well ($r=0.703$, $p<0.01$), however the two indices Enforcing contracts and Uncertainty avoidance show a low correlation ($r=0.306$, $p<0.05$) and thus, the outcome of the analysis should not be biased. In the case of Press Freedom not the highest loading item was selected from the dimension, as Press Freedom is available for all countries entering the analysis whereas the Bertelsmann Indices only offer information about transition economies. Furthermore, Press Freedom assesses the degree of political control regarding media issues and may also indicate a generally repressive political environment regarding the free expression of opinion.

Table 8.13 Pre-screening country groupings Fashion

Cluster 1	Cluster 2	Cluster 3
Bosnia Herzegovina Estonia Albania Taiwan Belgium Czech Republic Lithuania Mexico Macedonia Thailand Israel Latvia Croatia Bulgaria Lebanon Luxembourg Slovenia Cyprus Malta Hungary Slovak Republic United Arab Emirates Poland	Libya Russian Federation Oman Egypt Yemen Algeria Tunisia Pakistan Moldova Indonesia Iraq Morocco Ukraine Iran, Islamic Rep. India Turkey Romania Syrian Arab Republic	Singapore Kuwait Qatar Saudi Arabia Bahrain Belarus China Hong Kong Malaysia Jordan Ireland
Cluster 4	Cluster 5	
New Zealand United Kingdom United States Australia Canada Iceland Denmark Sweden Finland Netherlands Norway	Spain France Switzerland Germany Greece Austria Italy Japan Portugal	

Cluster 1 groups together 23 European countries from the former Eastern Bloc and former Yugoslavia with some exceptions like the two Middle Eastern countries or Mexico in Middle America. Strangely enough, also Belgium is assigned to this cluster. Cluster 2 depicts politically unstable countries primarily in the Middle East, North Africa and Asia. Cluster 3 gathers predominately countries from the Middle East and a few from Asia. Surprisingly, also Ireland is part of Cluster 3. Cluster 4 comprises highly developed, rich Anglo-Saxon and Nordic countries. Last but not least Cluster 5 consists of developed German and Roman- speaking countries, with the exception of Greece and Japan.

Cluster 1 - Transition economies

Cluster 1 of the pre-screening step for fashion resembles Cluster 1 of the pre-screening analysis for fruit juices. Mainly countries from Eastern Europe and former Yugoslavian countries as well as the island states of Malta and Cyprus are found in this group of countries. Historical tumults and totalitarian regimes of the past still shape the present political environment in most of these countries. Laws and regulations provide a rather sound legal environment for business operations, although the entangling of contractual issues may be difficult in some of the country. Additionally, the hiring and firing of employees is exacerbated by strict regulations as well as notification requirements and, hence, complicates the establishment of subsidiaries with local employees. However, a reasonable income per capita and a considerable infrastructure in all regions within the countries as well as a good acceptance and increased demand for foreign goods renders these markets interesting for firms to exploit growth opportunities. Tradition and interpersonal relationships are thoroughly cultivated.

The membership of Mexico in the group of transition economies seems more comprehensible than the classification with the politically difficult countries in the cluster solution for fruit juices. Israel also joins the cluster of transition economies which is rather feasible with respect to the income per capita and the strained political situation. All Middle Eastern countries, assigned to the transition economies in the cluster approach for fruit juices, do not make a part of the transition cluster anymore, except the United Arab Emirates, which shows an extremely high value of demand for foreign products compared to the other countries of the Middle East. Belgium actually shares most characteristics with the countries from Cluster 4 or 5, but also here the economy relies heavily on the import of foreign goods compared to the other highly developed European countries. The two other countries with an elevated level of imports that were assigned to the second cluster in the cluster solution for fruit juices, Hungary and the Czech Republic, are now also grouped with the other countries from the former Eastern bloc in Cluster 1. Taiwan is again assigned to cluster 1 as it shows similarities with the other countries. However, substantial information is missing for Taiwan as well as for Luxembourg and Lebanon, especially data on the level of economic development and degree of globalization of the countries.

Table 8.14 Pre-screening step Fashion: Cluster 1 Statistics

Attribute	Mean	Std. Dev.	Min	Max	Missing Values
Globalization Index	68.7	11.3	42.0	92.0	4 (17.39%)
Life Expectancy	75.7	2.5	71.6	79.6	0 (0.00%)
Gender-related Development Index	0.8	0.1	0.7	0.9	3 (13.04%)
Press Freedom	30.7	16.4	11.0	65.0	0 (0.00%)
Enforcing Contracts	437.0	240.9	112.0	980.0	3 (13.04%)
Rigidity of Employment Index	41.8	13.5	18.0	64.0	3 (13.04%)
Phone Subscribers/1000	1145.0	404.0	493.0	2112.0	1 (4.35%)
GDP/Capita	13735.0	9804.0	3210.0	39798.0	1 (4.35%)
Imports of goods and services	0.7	0.2	0.3	1.4	2 (8.70%)
Wilderness	0.0	0.1	0.0	0.2	0 (0.00%)
Uncertainty Avoidance	77.0	13.8	51.0	96.0	10 (43.48%)
Individualism/Collectivism	50.4	20.0	17.0	80.0	10 (43.48%)
Masculinity/Femininity	56.5	22.2	30.0	110.0	10 (43.48%)
Conservatism	4.2	0.1	4.0	4.4	13 (56.52%)
Human Orientation Values	5.3	0.2	5.0	5.6	15 (65.22%)

Cluster 2 – Risk markets

Countries in Cluster 2 generally represent difficult markets bearing various hazards for foreign firms due to instable democratic governments or totalitarian regimes, based on military power or Communist ideology. Foreign investments and products are seen with suspicion and the countries generally try to keep imports from other countries low promoting the purchase of local products. The media environment is mostly highly regulated and supervised by the government. Hence, the news coverage is extremely biased. GDP/capita is very low and in several countries large areas are not made accessible, also due to hostile environmental conditions. The establishment of production sites and subsidiaries is rather complicated due to restrictive regulations in the labor law. There are well-defined differences between the opportunities of men and women in society and the role in the family. Large families and loyalty towards family members generally play a major role within society whereas friendship is not regarded as important. Achievement and career goals are sub ordinate to relationships and supporting family members.

Most of the countries classified as risk markets for fashion are also considered risky for the introduction of fruit juices. The classification of Iraq, Oman and Moldova changed from transition economies to the risk markets for fashion, which seems rather sensible than the alignment wit transition economies. Due to its highly hazardous business environment marked by anarchy and war Iraq fits perfectly in the cluster of risk markets. Iraq as well as Oman and Moldova exhibit a very restrictive and supervised

media environment. Countries classified as risk markets are not used in the further analysis of markets for market entry.

Table 8.15 Pre-screening step Fashion: Cluster 2 Statistics

Attribute	Mean	Std. Dev.	Min	Max	Missing Values
Globalization Index	53.0	9.5	35.2	69.9	4 (22.22%)
Life Expectancy	70.4	3.7	62.5	76.9	0 (0.00%)
Gender-related Development Index	0.7	0.1	0.4	0.8	4 (22.22%)
Press Freedom	66.1	15.6	37.0	96.0	0 (0.00%)
Enforcing Contracts	378.2	143.0	27.0	672.0	1 (5.56%)
Rigidity of Employment Index	52.1	11.4	30.0	69.0	1 (5.56%)
Phone Subscribers/1000	443.0	299.0	59.0	1119.0	0 (0.00%)
GDP/Capita	4083.0	3877.0	772.0	14583.0	1 (5.56%)
Imports of goods and services	0.4	0.2	0.2	1.0	1 (5.56%)
Wilderness	0.3	0.3	0.0	0.9	0 (0.00%)
Uncertainty Avoidance	69.4	19.8	40.0	95.0	10 (55.56%)
Individualism/Collectivism	33.6	13.3	14.0	48.0	10 (55.56%)
Masculinity/Femininity	46.4	6.4	36.0	56.0	10 (55.56%)
Conservatism	4.3	0.0	4.3	4.3	17 (94.44%)
Human Orientation Values	5.4	0.2	5.2	5.6	11 (61.11%)

Cluster 3 – Highly regulated Countries

Especially countries from the Middle East and Asia are grouped together in Cluster 3. Generally, they represent acceptable markets with average GDP/Capita, except China and Belarus, which have a very low GDP/capita, hardly any legal barriers regarding the reinforcement of contracts and the assumption and dismissal of employees. However, the media environment is highly regulated by diverse laws and supervised by the government which may indicate a more restricted environment also in other fields of everyday life. The introduction of an enormous number of strict rules and safety regulations, e.g. Singapore, should reduce the probability of surprising or unusual situations. Unknown and foreign things may be considered threatening and are, therefore, disapproved. Traditions and the family are the main points of reference. Friendship only plays a subordinated role as friends are determined by ones in-group. Obedience and loyalty towards the family as well as caring for the well-being of close others are valued highly.

In most of the small countries missing data poses a problem concerning the cluster assignment and results should be interpreted with caution. In particular, the assignment of Ireland does not seem to be feasible as Ireland's characteristics do rather correspond to the countries in Cluster 4 than to the countries in Cluster 3. Actually, there is no

reasonable explanation for the cluster membership of Ireland in the cluster of highly regulated countries.

Table 8.16 Pre-screening step Fashion: Cluster 3 Statistics

Attribute	Mean	Std. Dev.	Min	Max	Missing Values
Globalization Index	70.2	10.8	53.7	83.1	3 (25.00%)
Life Expectancy	76.6	4.1	70.1	81.8	1 (8.33%)
Gender-related Development Index	0.8	0.1	0.7	0.9	3 (25.00%)
Press Freedom	61.8	21.1	15.0	88.0	0 (0.00%)
Enforcing Contracts	242.4	111.0	69.0	390.0	2 (16.67%)
Rigidity of Employment Index	16.7	14.0	0.0	34.0	2 (16.67%)
Phone Subscribers/1000	1098.0	418.0	428.0	1798.0	0 (0.00%)
GDP/Capita	17632.0	13055.0	2310.0	32506.0	2 (16.67%)
Imports of goods and services	0.6	0.3	0.3	0.9	3 (25.00%)
Wilderness	0.2	0.2	0.0	0.5	0 (0.00%)
Uncertainty Avoidance	24.3	12.9	8.0	36.0	6 (50.00%)
Individualism/Collectivism	30.2	19.7	20.0	70.0	6 (50.00%)
Masculinity/Femininity	56.2	9.0	48.0	68.0	6 (50.00%)
Conservatism	4.2	0.2	4.0	4.5	7 (58.33%)
Human Orientation Values	5.4	0.3	5.1	5.8	4 (33.33%)

Cluster 4 – Nordic - Anglo-Saxon Countries

Cluster 4 comprises the Anglo-Saxon and Northern European countries. They rank highly on the Globalization Index, thus, the presence of foreign companies and products is very common. Countries in this cluster have the highest GDP/Capita and hence represent attractive markets for market entry. A low level of regulations in the media and the general favorable legal environment offer various business opportunities for companies with expansion plans, although markets are often already saturated. Tolerance of diversity, an elevated openness to change and new ideas may ease the introduction of products with innovative features. Expressing own opinions and dealing with conflicts are essential for social life. Gender roles are more likely to deviate from traditional roles due to equal opportunities for men and women in education and the work environment. Relationships, solidarity and supporting others are highly esteemed in the countries grouped in Cluster 4.

Table 8.17 Pre-screening step Fashion: Cluster 4 Statistics

Attribute	Mean	Std. Dev.	Min	Max	Missing Values
Globalization Index	82.4	7.1	67.8	89.9	0 (0.00%)
Life Expectancy	79.4	1.0	78.0	80.6	0 (0.00%)
Gender-related Development Index	0.9	0.0	0.9	1.0	0 (0.00%)
Press Freedom	13.1	4.1	9.0	19.0	0 (0.00%)
Enforcing Contracts	173.0	100.0	48.0	346.0	0 (0.00%)
Rigidity of Employment Index	25.8	16.6	3.0	49.0	0 (0.00%)
Phone Subscribers/1000	1465.0	213.0	1080.0	1804.0	0 (0.00%)
GDP/Capita	40860.0	6137.0	27285.0	46400.0	3 (27.27%)
Imports of goods and services	0.4	0.1	0.2	0.6	0 (0.00%)
Wilderness	0.4	0.3	0.0	0.9	0 (0.00%)
Uncertainty Avoidance	44.3	11.5	23.0	59.0	1 (9.09%)
Individualism/Collectivism	78.6	9.5	63.0	91.0	1 (9.09%)
Masculinity/Femininity	36.8	25.1	5.0	66.0	1 (9.09%)
Conservatism	3.8	0.2	3.6	4.1	5 (45.45%)
Human Orientation Values	5.4	0.4	4.5	5.8	2 (18.18%)

Cluster 5 – Middle and Southern European Countries

Countries in Cluster 5 offer an equally attractive business environment as countries assigned to Cluster 4. The level of GDP is only slightly lower, an excellent infrastructure and the enforcement of legal claims in a short period of time render these countries very attractive for market entry. However, some aspects of business life, e.g. dismissal of employees, are highly regulated and require the notification of governmental institutions in advance. In contrast to Cluster 4 Middle and Southern European countries score high on Uncertainty Avoidance indicating an increased demand for strict rules and regulations. Social gender roles are still quite distinct and competitiveness, ambition and achievement are important to enhance one's reputation while traditions are not valued highly. Some countries, like France and Spain, however, are rank rather high on Femininity emphasizing relationships and supporting others. On the whole being friendly, generous caring and fair are mentioned as very desirable values in society.

The only country not from Middle or Southern Europe is Japan, which could be attributed to the level of economic development, the prevalence of achievement values and career goals in society as well as the prevention of uncertain situations by following established rules.

Table 8.18 Pre-screening step Fashion: Cluster 5 Statistics

Attributes	Mean	Std. Dev.	Min	Max	Missing Values
Globalization Index	81.4	7.9	64.2	91.6	0 (0.00%)
Life Expectancy	79.8	1.2	77.9	82.0	0 (0.00%)
Gender-related Development Index	0.9	0.0	0.9	0.9	0 (0.00%)
Press Freedom	20.8	7.2	11.0	35.0	0 (0.00%)
Enforcing Contracts	186.8	109.1	60.0	374.0	1 (11.11%)
Rigidity of Employment Index	49.8	19.3	17.0	66.0	0 (0.00%)
Phone Subscribers/1000	1472.0	146.0	1202.0	1659.0	0 (0.00%)
GDP/Capita	33277.0	6652.0	20029.0	42126.0	1 (11.11%)
Imports of goods and services	0.3	0.1	0.1	0.5	0 (0.00%)
Wilderness	0.0	0.0	0.0	0.0	0 (0.00%)
Uncertainty Avoidance	83.1	17.9	58.0	112.0	0 (0.00%)
Individualism/Collectivism	55.1	16.9	27.0	76.0	0 (0.00%)
Masculinity/Femininity	61.4	20.2	31.0	95.0	0 (0.00%)
Conservatism	3.6	0.2	3.3	3.9	1 (11.11%)
Human Orientation Values	5.5	0.2	5.2	5.8	0 (0.00%)

8.3.2 Selection of variables

The general assessment of market potential and inherent risks excludes 18 countries from further considerations. The remaining 54 countries will be investigated into detail regarding the market opportunities they offer for the introduction of a new fashion label. 12 variables are selected to assess the economic well-being in a country, the access to distribution channels and cultural values probably guiding purchasing behavior to identify countries for market entry. The item selection will be discussed with regards to their relevancy for the company's strategy formulation and aims at providing a road map for the use of secondary data in international market segmentation approaches. The reasons for the selection of Days to start Business, Television/1000 and Imports of goods and services are already sufficiently outlined in chapter 8.2.2 about the variable choice for the identification of markets for fruit juices.

Gini Index

The Gini Index evaluates opportunities for the introduction of a fashion label although income per capita is low as potential niche markets may be identified in countries with highly unequal income distribution. Hence, the Gini Index may assist the assessment of marketing opportunities for medium prized fashion.

Urban population

The percentage of urban population captures the level of concentration of people in urban centers and therefore, gives hints about distribution opportunities and also assesses the feasibility of large flagship stores at strategic locations in large cities. If the degree of urbanization is low well developed franchising networks in urban and rural areas may increase the awareness for the brand rather than a large store in the city.

Rigidity of Employment

The distribution of clothes should take place via a few large flagship stores and via telephone in internet orders. To guarantee a smooth execution of orders the company may have to maintain local storage facilities and phone as well as internet operators. Thus, the simplicity of hiring and firing employees and other regulations restricting the labor market may play a considerable role in the selection of markets and the strategy design.

Networked Readiness Index

Partly, the vending of clothes will take place via an e-shop on the homepage of the company or catalogue orders via telephone. The Networked Readiness Index evaluates the development and use of information and telecommunication technologies as well as the ability and actual propensity of citizens and businesses to actually use information technology in everyday life, e.g. to shop online.

Individualism / Collectivism

The Hofstede dimension of Individualism / Collectivism is chosen to assess the main sources of information regarding products, innovations, consumption habits and new brands. In Collectivist cultures consumption habits are predominantly influenced by the members of one's in-group. Hence, the identification of opinion leaders within these in-groups may be crucial for the successful market entry of a new fashion brand. In individualistic cultures advertisements and the media are still the most important information sources.

Masculinity/Femininity

Masculinity/Femininity may provide valuable input about the differentiation between social gender roles in general and about the way purchase decisions are reached in families in particular. Valuable insights about predominant cultural values, e.g. achievement, competition or compassion and modesty, may determine the kind of clothes requested and the type of advertising themes. In general, buying foreign goods are considered a way to “show off” in feminine cultures and represent a rather masculine consumption behavior.

Affective Autonomy

Affective Autonomy accounts for the right of the individual to experience own feelings linked to positive experiences. The desire for pleasure, excitement, enjoyment and variety in life may also influence the value assigned to fashion and the type of clothes purchased, e.g. highly fashionable, sportive, or comfortable.

Performance Orientation

Performance Orientation captures the importance of ambitious goals, innovation and steady performance improvement. Individuals in performance oriented cultures are judged on the basis on their achievements and the way they master challenges. In high performance oriented countries time is a scarce resource and decisions are urged. Therefore, the choice of performance orientation for market segmentation may provide an insight into the relative importance of convenient distribution channels, e.g. internet shopping, and excellent service performance.

Religion

The five acknowledged world religions shed light on religiously motivated traditions and beliefs potentially influencing clothing habits and requirements. In Islam women traditionally have to cover their arms and legs as well as their hair whereas in the vast majority of Christian groupings clothes are accepted to be shorter and tighter. In Hinduism the way people dress may be influenced by their social status predetermined by the respective caste a person belongs to. In Jewish Orthodox circles traditional clothes and hair styles for men and women are specified by religion. Therefore, the

enclosure of religions in the clustering process may reveal insights about the range and variants of clothing lines offered in diverse countries.

8.3.3 Country Clusters

The 12 variables (11 variables & religion) considered valuable for the assessment of market opportunities for a new fashion brand enter the analysis to identify international markets for market entry. The final cluster solution encompasses eight clusters. Cluster 1 comprises 13 countries from all over the world, mainly Eastern European and Ex-Yugoslavian countries, as well as Italy, Mexico and Japan. Cluster 2 depicts 11 predominantly Western European countries, the Baltic States and the island states of Malta and Cyprus. Surprisingly, also countries considered rather rich like Finland and the Netherlands are assigned to this cluster. Cluster 3 comprises 6, primarily small, but relatively rich markets, except for Germany, which represents a very large market. Cluster 4 is characterized by 7 Islamic countries whereas Cluster 5 groups together 5 countries from the Balkans and Asia. Cluster 6 includes the Anglo-Saxon countries and, strangely enough, a country strongly influenced by Islam, Saudi Arabia. Cluster 7 is a very small cluster consisting of the two cities Singapore and Hong Kong. Last but not least, Cluster 8 includes France, but generally, aggregates mainly the Northern European countries apart from Finland. Figure C.9 and Figure C.10 depict the resulting cluster solution graphically as well as highlighting the respective scores of the variables for countries within one cluster.

Table 8.19 Country groupings Fashion

Cluster 1	Cluster 2	Cluster 3	Cluster 4
Greece Hungary Slovak Republic Italy Slovenia Croatia Poland Belarus Macedonia, FYR Mexico Japan Czech Republic Israel	Portugal Spain Lithuania Latvia Finland Cyprus Malta Netherlands Bulgaria Luxembourg Estonia	Germany Austria Iceland Ireland Switzerland Belgium	Bahrain Lebanon Malaysia Qatar Kuwait Jordan United Arab Emirates
Cluster 5	Cluster 6	Cluster 7	Cluster 8
Bosnia Herzegovina Albania Thailand China Taiwan, China	New Zealand Canada Saudi Arabia Australia United States United Kingdom	Singapore Hong Kong	France Norway Sweden Denmark

Cluster 1

Countries assigned to the first cluster are characterized by an average to low GDP/capita ranging from \$ 3427 in Macedonia to \$ 34120 in Italy. By and large income is distributed rather equally with the exception for Mexico, where income is distributed highly unequally, and Israel and Japan, where the distribution is also considerably unequal. In general, all necessary requirements to start a business in one of these countries may be completed in a reasonable period of time. However, laws regulating the labor market are quite strict regarding necessary notifications of governmental institution in the case of profound changes in the labor policy of the firm, e.g. dismissal of a large number of employees due to an economic crisis. Therefore, the company should carefully evaluate if they establish storage facilities and call centers in a country or if they serve orders from a neighboring country providing better accession to the labor market for the company and less rules regarding the hiring and firing procedure of employees. The Networked Readiness Index is rather low in all of these countries indicating that the development and use of information technologies is not well developed. The use of information technologies among consumers and businesses may, therefore, be rather low. Thus, the distribution via an e-shop may not reach the customer and may not be used frequently. The choice of clothes in a catalogue and placing the

order via telephone in the customer service department of the company may be more appropriate for these markets. More than half of the population lives in cities. This renders the establishment of large flagship stores at strategic locations feasible in order to increase the brand awareness of Fashionista. The countries in these cluster are all predominantly Christian, therefore, religious restrictions regarding the dress code are limited. Only in Macedonia one third of the population is Muslim and may have certain regulations concerning the dress code of women. On the whole the countries in Cluster 1 score high on Masculinity indicating that the gender roles are quite distinct in society and traditional role allocation among men and women is still very common in these countries. This may lead to the assumption that often men earn the money and decide how to spend it with regards to clothing, leisure equipment and other not really necessary items. The opinion towards material success and ambition may also influence the type of clothes demanded and the way the brand image is communicated. In countries ranking high on Masculinity an advertisement focusing on a tough and assertive female role model or a women supporting her successful ambitious husband may have a high impact while in countries scoring high on femininity other values may have more impact. Performance Orientation is quite low in the countries, except for Japan. Innovation, achievement and performance improvement are not highly encouraged and time is seen as a perpetual resource. Members of these societies may prefer to spend hours in shopping malls instead of buying clothes conveniently at home.

Most of the countries in Cluster 1 provide reasonable markets for market entry. Although, the income per capita is rather low in a few countries, especially the Eastern European countries are considered to provide an increased growth potential in the future due to an augmenting interest in fashion and accessories. Italy, one of the markets Fashionista already operates in, is also part of this cluster enabling the firm to transfer knowledge about the business environment to other markets.

Table 8.20 Market Segmentation Fashion: Cluster 1 Statistics

Attribute	Mean	Std. Dev.	Min	Max	Missing Values
GINI Index	33.4	6.1	25.8	46.1	0 (0.00%)
Urban Pop	66.4	10.3	51.0	92.0	0 (0.00%)
Rigidity of Employment Index	43.5	15.6	19.0	66.0	0 (0.00%)
Days to start a business	29.8	14.0	13.0	60.0	0 (0.00%)
Television/1000	358.6	135.8	238.1	678.9	0 (0.00%)
Imports of goods and services	0.5	0.2	0.1	0.9	0 (0.00%)
Networked Readiness Index	0.2	0.5	-0.7	1.2	1 (7.69%)
Individualism/Collectivism	54.6	16.6	30.0	80.0	4 (30.77%)
Masculinity/Femininity	73.0	20.5	47.0	110.0	4 (30.77%)
Affective Autonomy	3.4	0.4	2.8	4.0	4 (30.77%)
Performance Orientation Practices	3.8	0.4	3.2	4.2	5 (38.46%)
Christianity	0.7	0.3	0.0	1.0	0 (0.00%)
Islam	0.1	0.1	0.0	0.3	8 (61.54%)
Judaism	0.0	0.0	0.0	0.0	13 (100.00%)
Hinduism	0.0	0.0	0.0	0.0	13 (100.00%)
Buddhism	0.8	0.0	0.8	0.8	12 (92.31%)

Cluster 2

A majority of the countries in Cluster 2 has a GDP/Capita between \$ 10000 and \$ 20000. Spain and Cyprus exhibit a slightly higher GDP/Capita and only Finland and the Netherlands display a GDP /Capita exceeding \$ 40000. Bulgaria with \$ 4704 has by far the lowest GDP within this cluster. However, income is relatively equally distributed without creating a large gap between the poor and the rich. Generally, the law offers a favorable environment for the rather quick registration of a foreign company. However, the procedure of hiring and firing workers is thoroughly regulated and requires several notification duties. Hence, like in Cluster 1, the company has to consider if the sourcing of the country from another country may be more feasible to prevent costs associated with the difficult hiring and firing process in these countries. Information technologies and their use are common, therefore, a small e-shop supported by prominent flagship stores and catalogue shopping may be successful in these countries. An additional advertising campaign in the TV may increase the brand awareness as at least a third of people in each country has a TV at home. A low value for Masculinity/Femininity indicates an overlap of gender roles leading to the assumption that men as well as women make purchasing decisions for the family. Feminine values like modesty and the concern for quality of life may shape the fashion preferred, e.g. swinging colorful skirts and T-shirts, whereas in masculine society straight skirts, trousers and blouses may be demanded to communicate material success and competitiveness. Advertisements for the clothes in feminine country may underline the importance of relationships and

quality of life, e.g. showing a group of young women spending a day in the park in their leisure time clothes gossiping. As most of the countries have a prevalent Christian background dress code requirements are not very common.

Countries within Cluster 2 offer a considerably developed business environment regarding information and communications technology. Generally, most countries are characterized by a rather low GDP. However, countries like Finland and the Netherlands are rich countries with a relatively equally distributed income and thus, represent attractive markets for a fashion company.

Table 8.21 Market Segmentation Fashion: Cluster 2 Statistics

Attribute	Mean	Std. Dev.	Min	Max	Missing Values
GINI Index	34.0	3.9	26.9	38.5	3 (27.27%)
Urban Pop	66.5	6.5	55.0	77.0	3 (27.27%)
Rigidity of Employment Index	52.4	7.9	44.0	66.0	3 (27.27%)
Days to start a business	20.6	13.4	7.0	47.0	2 (18.18%)
Television/1000	503.6	114.0	313.3	702.6	1 (9.09%)
Imports of goods and services	0.7	0.3	0.3	1.4	1 (9.09%)
Networked Readiness Index	0.6	0.6	-0.3	1.7	0 (0.00%)
Individualism/Collectivism	53.8	17.6	27.0	80.0	3 (27.27%)
Masculinity/Femininity	35.0	12.0	14.0	50.0	3 (27.27%)
Affective Autonomy	3.5	0.3	3.1	4.0	5 (45.45%)
Performance Orientation Practices	3.9	0.3	3.6	4.3	7 (63.64%)
Christianity	0.8	0.2	0.3	1.0	1 (9.09%)
Islam	0.1	0.1	0.1	0.2	8 (72.73%)
Judaism	0.0	0.0	0.0	0.0	11 (100.00%)
Hinduism	0.0	0.0	0.0	0.0	11 (100.00%)
Buddhism	0.0	0.0	0.0	0.0	11 (100.00%)

Cluster 3

A fairly high GDP/Capita and a rather equally distributed income render the 6 countries attractive markets for market entry. The short time frame needed to complete all necessary legal requirements to start a business in these countries enables the firm to start off with market entry quite quickly. A well-developed environment for the use of information technologies by businesses and citizens of the country enhances the feasibility of a large e-shop supported by a few flagship stores in strategically chosen location in urban areas. As on average more than three quarters of population live in urban centers the flagship stores and advertising material apart from TV spots like megaboards in cities may enhance the brand awareness. Advertising plays a major role in the purchase decision in these rather individualistic countries as advertisements and

media are the main sources of information about products. The high score on Masculinity indicates the importance of ambitions and competitiveness is valued considerably too. As discussed in Cluster 1 this may also influence the type of clothes requested. Performance improvement and innovation are also highly rewarded in these countries. Convenient shopping possibilities like an e-shop may be important as people don't want to waste scarce time on wandering around shops. Variety in life, pleasure and enjoyment are inherent cultural values that may influence advertising themes, e.g. showing a celebrity traveling around the world wearing different clothes of the fashion brand. Religion again does not pose a severe problem as all of the six countries are predominantly Christian.

Three out of the six countries within Cluster 3 (Austria, Switzerland, Germany) are markets already entered by Fashionista. Hence, the other three countries may provide a very similar business environment and simplify organizational issues when entering a market. However, the other countries are again rather small markets in Europe like the present markets, except for Germany of course.

Table 8.22 Market Segmentation Fashion: Cluster 3 Statistics

Attribute	Mean	Std. Dev.	Min	Max	Missing Values
GINI Index	32.1	2.4	28.3	34.3	1 (16.67%)
Urban Pop	75.8	15.8	60.0	97.0	1 (16.67%)
Rigidity of Employment Index	33.3	14.4	17.0	55.0	0 (0.00%)
Days to start a business	14.7	9.2	4.0	28.0	0 (0.00%)
Television/1000	470.6	96.8	330.3	623.6	0 (0.00%)
Imports of goods and services	0.6	0.2	0.4	0.9	0 (0.00%)
Networked Readiness Index	1.3	0.3	0.9	1.8	0 (0.00%)
Individualism/Collectivism	67.0	7.4	55.0	75.0	1 (16.67%)
Masculinity/Femininity	67.4	9.0	54.0	79.0	1 (16.67%)
Affective Autonomy	4.1	0.1	4.0	4.2	4 (66.67%)
Performance Orientation Practices	4.5	0.3	4.3	4.9	2 (33.33%)
Christianity	0.8	0.1	0.7	0.9	0 (0.00%)
Islam	0.0	0.0	0.0	0.0	3 (50.00%)
Judaism	0.0	0.0	0.0	0.0	6 (100.00%)
Hinduism	0.0	0.0	0.0	0.0	6 (100.00%)
Buddhism	0.0	0.0	0.0	0.0	6 (100.00%)

Cluster 4

In the United Arab Emirates, Kuwait and Bahrain GDP per capita is quite considerable due to oil production while the other countries have a rather low GDP/Capita. Additionally, although the GINI Index is only available for Jordan and

Malaysia, the distribution of income seems to be fairly unequal, highlighting the existence of niche markets for medium to high priced clothes. The registration procedure to start a business may require more time than in other countries, but the labor market is not determined by a vast amount of regulations regarding the employment and dismissal of workers. The low Networked Readiness Index is an indicator for a only roughly developed network of information technologies and a limited use of ICT in everyday life. Thus, the e-shop may be of limited importance for these countries. The large percentage of people living in urban areas favors an increased number of strategically positioned exclusive flagship stores and megaboads at highly frequented locations. Combined with the usual catalogue orders these actions should boost sales in these markets although advertising spots on TV would not have a large coverage due to the relatively small number of people possessing a TV set. Islamic traditions and laws preeminent in the countries may influence the clothes and advertising themes that are accepted by the population.

The United Arabian Emirates, Kuwait and Bahrain may represent attractive markets as people are quite wealthy. In the other countries unequal income distribution may favor catering to the demand of niche markets with a certain level of income. Generally, the 7 countries represent rather difficult markets for Fashionista as religiously required dress codes may limit the number of product variants that may be exported to the countries in question.

Table 8.23 Market Segmentation Fashion: Cluster 4 Statistics

Attribute	Mean	Std. Dev.	Min	Max	Missing Values
GINI Index	42.5	5.2	38.8	46.1	5 (71.43%)
Urban Pop	82.4	12.0	64.0	96.0	2 (28.57%)
Rigidity of Employment Index	24.2	9.9	10.0	34.0	2 (28.57%)
Days to start a business	36.4	19.1	14.0	63.0	2 (28.57%)
Television/1000	286.8	138.9	86.8	450.9	0 (0.00%)
Imports of goods and services	0.6	0.3	0.3	0.9	0 (0.00%)
Networked Readiness Index	0.3	0.4	0.0	0.9	1 (14.29%)
Individualism/Collectivism	26.0	0.0	26.0	26.0	6 (85.71%)
Masculinity/Femininity	50.0	0.0	50.0	50.0	6 (85.71%)
Affective Autonomy	3.2	0.0	3.2	3.2	6 (85.71%)
Performance Orientation Practices	3.9	0.4	3.5	4.3	4 (57.14%)
Christianity	0.1	0.1	0.1	0.4	2 (28.57%)
Islam	0.8	0.1	0.6	1.0	0 (0.00%)
Judaism	0.0	0.0	0.0	0.0	7 (100.00%)
Hinduism	0.1	0.0	0.1	0.1	6 (85.71%)
Buddhism	0.2	0.0	0.2	0.2	6 (85.71%)

Cluster 5

The countries in Cluster 5 generate a very low GDP/Capita of about \$ 3000 on average. Taiwan is the exception with a GDP/Capita of almost \$ 16000. Income distribution is very quite unequal in the Asian countries while the Balkan States are characterized by a rather equal distribution of income. The procedure of completing registering requirements to start a business is fairly cumbersome and requires more than 40 days. Information technology networks are not thoroughly developed and therefore, the use of information technologies is not rampant. Taiwan is again the exception scoring rather high on the Networked Readiness Index. However, in general the vending of clothes via an e-shop will not reach a large customer segment. As the percentage of urban population is also very low the concept of flagship stores in strategically selected locations in urban areas will not result in the desired success either. Perhaps in this case franchising agreements with local stores and shopping malls may be the best solution. Generally, only a small number of people has a TV, but still advertising spots may reach the part of the population that may not only be able to buy a TV but also to afford fashionable clothes. The interpretation of cultural values is determined by the reduced availability of data. Nevertheless, the countries in this cluster seem to score rather high on Collectivism pointing out that consumption habits and product purchases are definitely influenced by the members of one's in group and not so much by advertisements and media. Furthermore, elevated standards of performance and ambitious goals shape the definition of success in these countries and strengthen the

demand for convenient shopping facilities to save time. Thailand scores considerably lower on Performance Orientation practices indicating that time is not rushed. The countries within this cluster are shaped by diverse religions. Thailand and Taiwan have a large Buddhist population while Albania is characterized by a large number of Muslims which may have an impact on clothing requirements and a considerable number of Christians.

In general the countries in Cluster 5 represent offer a limited market potential due to their low GDP/Capita. The fairly unequal distribution of income may reveal small, but financially powerful niche markets within the countries. The low percentage of urban population may create problems regarding the distribution of clothes as the originally planned flagship stores may not reach a large percentage of the population. Nonetheless, flagship stores may cater to the demand of people in the urban areas generally representing the financially well-situated part of the population that can afford fashionable clothes.

Table 8.24 Market Segmentation Fashion: Cluster 5 Statistics

Attribute	Mean	Std. Dev.	Min	Max	Missing Values
GINI Index	35.5	10.6	26.2	46.9	1 (20.00%)
Urban Pop	40.3	5.9	32.0	45.0	1 (20.00%)
Rigidity of Employment Index	38.8	15.0	18.0	56.0	0 (0.00%)
Days to start a business	41.2	9.3	33.0	54.0	0 (0.00%)
Television/1000	280.9	82.5	196.5	384.4	1 (20.00%)
Imports of goods and services	0.6	0.2	0.3	0.8	1 (20.00%)
Networked Readiness Index	0.0	1.0	-1.0	1.5	0 (0.00%)
Individualism/Collectivism	19.0	1.7	17.0	20.0	2 (40.00%)
Masculinity/Femininity	48.3	16.3	34.0	66.0	2 (40.00%)
Affective Autonomy	3.4	0.2	3.2	3.6	2 (40.00%)
Performance Orientation Practices	4.4	0.4	3.9	4.8	1 (20.00%)
Christianity	0.2	0.2	0.0	0.5	0 (0.00%)
Islam	0.3	0.3	0.0	0.7	1 (20.00%)
Judaism	0.0	0.0	0.0	0.0	5 (100.00%)
Hinduism	0.0	0.0	0.0	0.0	5 (100.00%)
Buddhism	0.9	0.0	0.9	0.9	3 (60.00%)

Cluster 6

The countries in Cluster 6 offer a business environment very similar to the countries in Cluster 3 and differ mainly with regards to legal regulations. In general the legal environment may be more favorable in the countries gathered in cluster six because regulations of the labor market regarding the hiring and firing of workers are

straightforward and the procedure to start a business is also completed in a few days however the imports of foreign products is still quite low. GDP/Capita is considerably high and information technologies are well developed and intensely used in everyday life. At least 80% of the population lives in cities, hence, the distribution via an online shop and preminent flagship stores will reach a major part of the population. Moreover, the countries in Cluster 6 score outstandingly high on Individualism indicating that an emphasis on advertising and media communication is crucial for a successful market entry. More than half of the population is Christian in all countries of Cluster 6 except for Saudi Arabia which has a 100% Muslim population.

Generally, the countries in cluster 6 may be targeted with the same strategies suggested for cluster 3. However, the countries in Cluster 6 represent very large markets compared to Austria or Switzerland in Cluster 3. Furthermore, the Anglo-Saxon countries score lower on Masculinity than the countries in Cluster 3 indicating that, although masculine values like ambition and competitiveness are still valued in society, the concern for quality of life and relationships with others are also of considerable importance. Saudi Arabia is culturally very different from the other countries in Cluster 6, leading to the assumption that the availability of Hofstede and Schwartz values for Saudi Arabia would change the cluster membership.

Table 8.25 Market Segmentation Fashion: Cluster 6 Statistics

Attribute	Mean	Std. Dev.	Min	Max	Missing Values
GINI Index	37.0	4.7	32.6	45.0	1 (16.67%)
Urban Pop	86.0	4.7	80.0	92.0	0 (0.00%)
Rigidity of Employment Index	11.3	5.2	3.0	17.0	0 (0.00%)
Days to start a business	8.5	5.5	2.0	15.0	0 (0.00%)
Television/1000	512.7	187.5	193.1	740.5	0 (0.00%)
Imports of goods and services	0.3	0.1	0.2	0.4	0 (0.00%)
Networked Readiness Index	1.5	0.3	1.1	2.0	1 (16.67%)
Individualism/Collectivism	85.8	5.8	79.0	91.0	1 (16.67%)
Masculinity/Femininity	59.8	5.2	52.0	66.0	1 (16.67%)
Affective Autonomy	3.7	0.2	3.5	4.0	3 (50.00%)
Performance Orientation Practices	4.4	0.2	4.1	4.7	1 (16.67%)
Christianity	0.7	0.0	0.5	0.8	1 (16.67%)
Islam	0,2	0,4	0,0	1,0	1 (16.67%)
Judaism	0.0	0.0	0.0	0.0	5 (83.33%)
Hinduism	0.0	0.0	0.0	0.0	5 (83.33%)
Buddhism	0.0	0.0	0.0	0.0	4 (66.67%)

Cluster 7

Cluster 7 is a rather small cluster comprising only the two cities of Singapore and Hong Kong. Although GDP is quite high in both of them income is distributed rather unequally, especially in Hong Kong. Therefore, maybe only a part of the population has enough money to spend it on fashion. The required legal procedures to start a business are completed quickly. Employees can be easily hired and fired as there are no specific regulations regarding legal requirements and institutional notification in the case of dismissal. Hence, Hong Kong and Singapore offer generally attractive conditions regarding the establishment of production sites and large call centers. Both cities offer a highly developed framework of information and communication technology and are characterized by an elevated propensity to use these technological advances in business and everyday life. Since both societies score high on Collectivism one's own in-group is the main point of reference to gain knowledge about a product while the media only plays a minor role. Individual feelings and emotions, like pleasure, enjoyment and variety of life, are not as important as the interest of the group. Harmony with the social environment is highly appreciated while direct confrontations are judged extremely rude and undesirable which may also influence advertising themes. Furthermore, high standards of performance and steady performance improvement are highly rewarded in these societies and time is seen as a rather scarce resource, thus the demand for convenient shopping facilities like online-shops are increasingly demanded to save time.

Singapore and Hong Kong both represent culturally very different markets for a European firm. Even though economic and legal conditions are quite favorable the culture gap may impair the success of market entry.

Table 8.26 Market Segmentation Fashion: Cluster 7 Statistics

Attribute	Mean	Std. Dev.	Min	Max	Missing Values
GINI Index	45.8	5.7	42.5	52.3	0 (0.00%)
Urban Pop	100.0	0.0	100.0	100.0	1 (50.00%)
Rigidity of Employment Index	0.0	0.0	0.0	0.0	0 (0.00%)
Days to start a business	7.0	3.5	5.0	11.0	0 (0.00%)
Television/1000	289.2	19.5	266.7	300.5	0 (0.00%)
Imports of goods and services	0.0	0.0	0.0	0.0	2 (100.00%)
Networked Readiness Index	1.7	0.3	1.4	1.9	0 (0.00%)
Individualism/Collectivism	21.7	2.9	20.0	25.0	0 (0.00%)
Masculinity/Femininity	51.0	5.2	48.0	57.0	0 (0.00%)
Affective Autonomy	3.1	0.0	3.0	3.1	0 (0.00%)
Performance Orientation Practices	4.9	0.1	4.8	4.9	0 (0.00%)
Christianity	0.1	0.0	0.1	0.1	0 (0.00%)
Islam	0.1	0.0	0.1	0.1	1 (50.00%)
Judaism	0.0	0.0	0.0	0.0	2 (100.00%)
Hinduism	0.0	0.0	0.0	0.0	1 (50.00%)
Buddhism	0.0	0.0	0.0	0.0	2 (100.00%)

Cluster 8

The economic situation in the countries of Cluster 8 resembles the economic condition in countries of Cluster 3 and Cluster 6. In all three clusters the GDP/Capita is rather high and the distribution of income is rather fair, although in Nordic countries income is more equally distributed than in the Anglo-Saxon countries. The development and use of information and communication technologies is also rampant in the countries of the three clusters. However, Cluster 8 differs from the other two clusters due to the extremely regulated labor markets in the countries regarding the hiring and firing of employees and the rather low scores on Masculinity. Unlike the Cluster 3 and Cluster 6 countries in Cluster 8 appreciate feminine values like compassion and modesty. Buying decisions are generally shared between family partners.

France is already in the market portfolio of Fashionista. Hence, knowledge gained in France may help to successfully enter the other three countries within Cluster 8. However, these countries offer attractive markets in terms of GDP/Capita they may be difficult to enter as strong competitors like Hennes & Mauritz have their home market in Sweden. Additionally, the fairly low imports and the low score on the Hofstede dimension of Masculinity/Femininity indicate that the demand for foreign products may be rather low.

Table 8.27 Market Segmentation Fashion: Cluster 8 Statistics

Attribute	Mean	Std. Dev.	Min	Max	Missing Values
GINI Index	25.2	1.5	23.2	26.7	0 (0.00%)
Urban Pop	81.0	3.9	76.0	85.0	0 (0.00%)
Rigidity of Employment Index	41.8	19.0	20.0	66.0	0 (0.00%)
Days to start a business	9.5	4.0	6.0	15.0	0 (0.00%)
Television/1000	525.3	63.0	442.0	574.6	0 (0.00%)
Imports of goods and services	0.4	0.1	0.3	0.4	0 (0.00%)
Networked Readiness Index	1.4	0.3	1.1	1.8	0 (0.00%)
Individualism/Collectivism	71.3	2.1	69.0	74.0	0 (0.00%)
Masculinity/Femininity	18.0	17.3	5.0	43.0	0 (0.00%)
Affective Autonomy	4.2	0.3	4.0	4.4	2 (50.00%)
Performance Orientation Practices	4.0	0.3	3.7	4.2	1 (25.00%)
Christianity	0.9	0.1	0.9	1.0	0 (0.00%)
Islam	0.0	0.0	0.0	0.1	1 (25.00%)
Judaism	0.0	0.0	0.0	0.0	3 (75.00%)
Hinduism	0.0	0.0	0.0	0.0	4 (100.00%)
Buddhism	0.0	0.0	0.0	0.0	4 (100.00%)

According to the concept of “near-market knowledge” by Mitra and Golder (2002) Fashionista may consider 3 clusters of country for a successive market entry like suggested by Herbig and Kramer (1994) and Peterson and Malhotra (2000). Cluster 1 consists of mainly Eastern European and Balkan countries that seem to have a similar business environment like Italy, which is also assigned to this cluster. Although, these countries may be as well developed as industrialized countries regarding infrastructure and information technologies, they represent attractive markets with a high growth potential. The present markets of Austria, Switzerland and Germany are merged in Cluster 3 together with 3 other rather wealthy countries with excellent infrastructure. However, the other countries in this cluster are rather small, therefore would probably not lead to the desired growth potential. France is part of Cluster 8 together with the Northern European countries. Even though, these countries are particularly wealthy local competition that already operate international like Hennes&Mauritz may impede market entry. Countries in Cluster 6 show several similarities with the countries in Cluster 3 and Cluster 8 regarding the level of wealth, infrastructure and the development of technology and may as well be considered for successive market entry.

8.4 Comparison Fruity vs. Fashionista

Generally, in the pre-screening step, the use of the highest or at least considerably high loading relevant variables yields rather congruent results for some clusters for both

companies since nearly the same variables are used. The pre-screening step for fruit juices results in three clusters while the cluster solution for Fashionista comprises five clusters. However, Cluster 1 and Cluster 3 for Fruit Juices resemble Clusters 1 and 2 for fashion. A few countries like Albania, Mexico and Lebanon change from the cluster of risk markets for Fruity to the cluster of transition markets for Fashionista. The developed countries of Cluster 2 in the pre-screening solution for fruit juices are split into two different clusters in the cluster approach for fashion, namely Nordic – Anglo-Saxon countries and Middle and Southern European countries. Cluster 3 of highly regulated countries in the cluster solution for Fashionista aggregates various countries characterized by strict laws and oppressed media freedom from all 3 clusters of Fruity's cluster solution.

The actual clustering approach for market segmentation using only the countries deemed attractive for market entry in the pre-screening step shows that the cluster results may differ decisively when different variables are used for divergent purposes and requirements of the companies. The cluster analysis for fruit juices yields again three rather large clusters whereas the cluster analysis for the fashion market results in a relatively fragmented cluster solution of eight clusters. Even the developed countries for example are assigned to three different clusters that differ mainly in terms of the legal environment and Hofstede values.

The two different cluster approaches for fruit juices, one excluding and the other including religion as a segmentation variable, indicates that the impact of religion seems to be fairly small in this case as the cluster solution remains nearly the same with the exception of the five countries Taiwan, Malta, Bulgaria, Bahrain and Cyprus which moved from Cluster 2 to Cluster 1 and Cluster 3. In general religion does not seem to definitely have a crucial impact on the economic environment of a country. Therefore, one may assume that religion should always be monitored before selecting new markets especially in the case of religion-sensitive products, but it may not be a key determinant of market segmentation.

9. Discussion and Conclusion

This section draws together previous approaches in the literature and insights gained throughout the selection, evaluation and analysis of the data set. Major limitations will be discussed and suggestions for future research will be highlighted.

9.1 Discussion

The main purpose of this study was to show the applicability and use of secondary data in international marketing research to ease and guide the segmentation and selection of markets. The design of an interactive approach to data selection for market segmentation and market selection offering a considerable number of indices carefully selected from international data sources should enable the subjective evaluation and selection of indices with regards to the company situation and the product or service under investigation. The evaluation and comparison of resulting country clusters with regards to existent approaches in literature should reveal new insights regarding similarities and differences of countries that may be case- and product sensitive according to the variable selection for the problem at hand.

9.1.1 Data Set

Various previous studies on international market segmentation introduced and discussed diverse variables to assess similarities and differences among countries as well as their general market attractiveness. However, research on country clusters, e.g. Nachum (1994a), Sethi (1971), Day et al. (1988), mainly focused on economic, social, demographic and political issues assessed by using simple indicators, e.g. average life expectancy, hospital beds/1000, annual production of electricity or average rate of currency inflation. The categorization of indices used in the underlying study was principally adopted from Wind and Douglas (1972) introducing a dimension of infrastructure like proposed by Kreutzer (1991) substituting geography, which accounts only for topological issues and adding an environmental dimension like suggested by Nakip (1999). The selection of indices for the ten categories was mainly guided by the intention to combine “traditional variables” like GDP/Capita, currency inflation, life expectancy and electricity consumption with innovative indices, like the Failed States Index, the Bertelsmann Indices or the KoF Index of Globalization, to show and test the wide applicability of online data from international organizations in marketing. The

innovative indices should provide new insights on the country environment assessing complex country traits and enable the researcher to evaluate various aspects of the country environment using only a small data set for analysis like already suggested by Nachum (1994a). However, the integration of complex indices based on elaborated computations yields several problems for the use in international segmentation and market selection frameworks. Generally, composite indices may be easily used alone or in a very small data set for market evaluation, e.g. the composite index of trade barriers in Papadopoulos et al. (2002). However, when integrated in a larger data set high correlations with simple indices and among composite indices may bias the results of cluster analysis as composite indices are often calculated merging several simple indices. Therefore, the integration of composite indices may only be appropriate for the evaluation of markets if used in very small data groups, otherwise the use of distinct single indices, where the concept they measure is clearly defined, may yield better and unbiased results.

The integration of cultural value frameworks with economic, political, legal and infrastructural dimensions in an approach to market segmentation and market selection is rather unexploited, but may provide a more comprehensive view of the business environment in a country (see also Diamantopoulos and Schlegelmilch (1987) for the combination of the Hofstede values and macro-economic country characteristics). With the inclusion of the Schwartz values in the data set a sound cultural framework different to the Hofstede values is introduced to international marketing. However, the dimensions derived by Steenkamp (2001) merging the Hofstede values and the Schwartz values could not be replicated in the classification of the indices. This may be attributed to the fact that with the use of GLOBE indices another framework capturing cultural idiosyncrasies enters the analysis.

Fundamentally, the classification of the selected indices was conducted in two steps. First, they were assigned on a judgemental basis partly guided by insights from literature and then principal component analysis should divide the indices into smaller sub-groups within the previously defined categories. The principal component analysis yielded feasible results but a successive reliability check resulted in very low scores on Cronbach's α revealing that the indices within the clusters may not measure the same construct. In this case the low reliability of the resulting components was not perceived to be a major limitation as it was not intended to use the component scores for the

cluster approach. The reduction of the data set excluding certain variables to increase the reliability score would have reduced the variety of diverse and new indices which would have impeded the aim to develop an interactive clustering approach enabling a tailored selection of variables according to the problem at hand. However, if the component scores should be used for the country clustering approach, like in the cluster approach by Sethi (1971) and consecutively also by Helsen et al. (1993), the low reliability scores for most of the resulting components would have to be reconsidered.

9.1.2 Country Clusters

The country clusters in the present study are formed based on four more or less diverse sets of variables. In the pre-screening step the slight differences between the variable sets show that the implementation of similar data sets exchanging only a few variables according to the situation of the company still yields rather congruent country clusters. Although, a cluster may be split into parts generally the same countries are grouped together, yielding rather stable results to assess the general business environment in a country. In the consecutive approach to cluster the countries not excluded in the pre-screening step, the variable set differs considerably, as indices are not selected to assess the general business environment, but to group countries with regards to marketing mix and marketing expansion strategies of the firm. As a result the cluster outcome reveals very diverse clustering solutions showing that countries that seem similar at the first glance may not necessarily share congruent business environments.

Strikingly, only a few studies, predominantly in the field of industrial market segmentation actually provide an overview about country clusters, while most other studies offer detailed insights on the bases and the approach for international market segmentation, but do not display resulting country clusters. In general, studies forming country groupings based on economic, industrial, and social variables, e.g. Day et al. (1988), Nachum and Ayal (1994) or Sethi (1971), yield clusters with rather geographically dispersed countries determined by the level of development of a country, for example a cluster of emerging markets in South America, Asia and Africa. Studies using culture and traditions like the study by Ronen and Shenkar (1995), to name the most comprehensive study about cultural traits merging several studies based on work values and goals, generally result in rather geographic clusters pooling together countries with rather similar geographic coordinates. The cluster approach selected in the underlying study integrating various indices describing the business environment as

well as cultural variables again results in rather geographically dispersed clusters indicating that cultural traits and habits mainly based on working goals, surprisingly, may not have a significant impact on the development of the business environment. The integration of the innovative, complex indices yields rather new clusters not really comparable to the clustering outcomes of the few studies on industrial and cultural segmentation actually providing results. However, several country groups like the Anglo-Saxon countries, the Middle Eastern countries or the German-speaking countries are generally grouped in the same clusters either alone or with other countries when using only “traditional variables” (e.g. Day et al. 1988) as well as when integrating complex indices and cultural variables. Japan and Israel are commonly rather assigned to clusters represented by predominantly Western countries and not to the geographically closer countries of Asia and the Middle East. This leads to the conclusion that mindsets in Japan and Israel as well as cultural habits and traditions are certainly different from those pre-eminent in neighbouring countries. Eastern European countries are often grouped into one cluster in older country clustering approaches, e.g. Day et al. (1988), Ronen and Shenkar (1995). In the present study, however, they are grouped with other countries, e.g. Hungary and the Czech Republic with Austria, Germany and France, indicating that change and development happens faster in some Eastern European countries than in others.

Interestingly, GDP/Capita varies remarkably within the clusters indicating that GDP/Capita may not assess the complex commonalities between countries and hence, does definitely not represent a sound measure to use solely for the assessment of marketing attractiveness (see also Weber 1974). The influence of religion on the cluster formation also seems to play a minor role. However, this circumstance may be ascribed to the mere formulation of the index Religion actually creating a large amount of missing data regarding the five world religions as for each country only a few values for the predominant national religions are available, but all 5 sub-indices of Religion have to enter the analysis. In general, Lee (1990) notes that although, cultural habits and traits strongly influence the adoption of innovations and the acceptance of new products, economic factors are not less important in the determination of the pace of product adoption.

9.2 Conclusions

The approach suggested in the underlying study should provide an interactive clustering approach enabling a company to carefully evaluate the business environment in countries and to identify homogeneous groups of countries that may be targeted with rather standardized marketing mix strategies. The formation of country clusters based on selected criteria preceding market selection enables a company to enter countries consecutively starting with the countries offering the most similar market conditions and moving to rather different markets later on (see Herbig and Kramer (1994) as well as Peterson and Malhotra (2000)). However, as the resulting country clusters frequently lead to rather unexpected country combinations further research in country clusters considered extraordinary attractive for market entry may shed light on inherent similarities in a specific country cluster identifying border-transcending segments within the selected country group. International market research expenditures may be reduced as only auspicious markets fulfilling several basic pre-requisites are investigated using primary research. The pre-screening step adopted by Johansson (1997) introduces a further interim step to eliminate very unfavorable markets from the market grouping approach beforehand.

The integration of the Viscovery Profiler software eases the otherwise tedious task of clustering countries. The graphical depiction of the cluster formation supports the interpretation of clusters and provides an illustrative picture about the values of attributes within one country group. The combination of a hierarchical cluster method and self-organizing maps overcomes the general limitations of clustering approaches introducing aspects of artificial neural networks. The further applications of the Viscovery Profiler program would additionally offer the opportunity to actually set marketing activities tailored to the country groups and evaluate consumer response statistically.

9.3 Major Limitations

Principally, the present study suffers from the general limitations of secondary data regarding the comparability, accuracy and especially also the availability of data. Missing data was a key issue in the grouping of indices and the successive analysis. The vast amount of missing data for several countries rendered the principal component analysis only possible in pre-specified sub-groups of variables as the number of

excluded cases would have been too large to yield a reasonable component solution when performing the analysis on the entire data set. Particularly data on cultural issues is only available for a limited number of countries due to the difficulties linked to the quantification of culture. Thus, several country clusters have to be interpreted with caution regarding cultural similarities.

Moreover, the selection of indices is characterized by some subjectivity. The perspectives and the present situation of the company have to be carefully evaluated to guide the selection of variables. The imprudent choice of indices for a clustering approach may simply yield a solution that may in fact not cater to the market requirements of the company. Hence, the interactive selection of indices is one of the main advantages of the suggested approach as it renders the deliberate, tailored choice of variables possible, but on the other side a considerable portion of subjectivity in the selection of variables may lead to sub-optimal country groupings.

Finally, the suggested framework represents a very general approach to international market segmentation and market entry. Industry- as well as product specific attributes and, most notably, firm constraints are not accounted for.

9.4 Future Research

The present study suggests a clustering framework on the country level based on data from online sources in combination with cultural frameworks to evaluate the business environment and identify commonalities among countries. A guide for the potential use of the suggested indices is given and applied in two hypothetical examples. However, the use of the indices for international market segmentation is not validated whatsoever. Hence, the use of the suggested indices in international marketing research may require further validation with regards to the impact of specific market conditions on product diffusion. Therefore, linking the proposed variables to measures of product diffusion and innovation adoption may further validate the use of the present data set in international market segmentation decisions. The integration of industry- as well as product specific characteristics may actually result in a tool to not only screen countries but to actually identify countries that may be targeted with the same overall marketing strategies. Additionally, the possibility to explicitly, not only via the selection of indices, account for firm constraints and company specifications may be evaluated in future research.

The integration of the proposed data set in a software program such as Viscovery Profiler would ease the selection and use of the data set to screen potentially attractive countries for companies. Periodical updates and a constant evaluation of the data set may result in a very effective tool guiding the initial steps towards international market expansion and market segmentation.

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Appendix A Two-step segmentation approaches

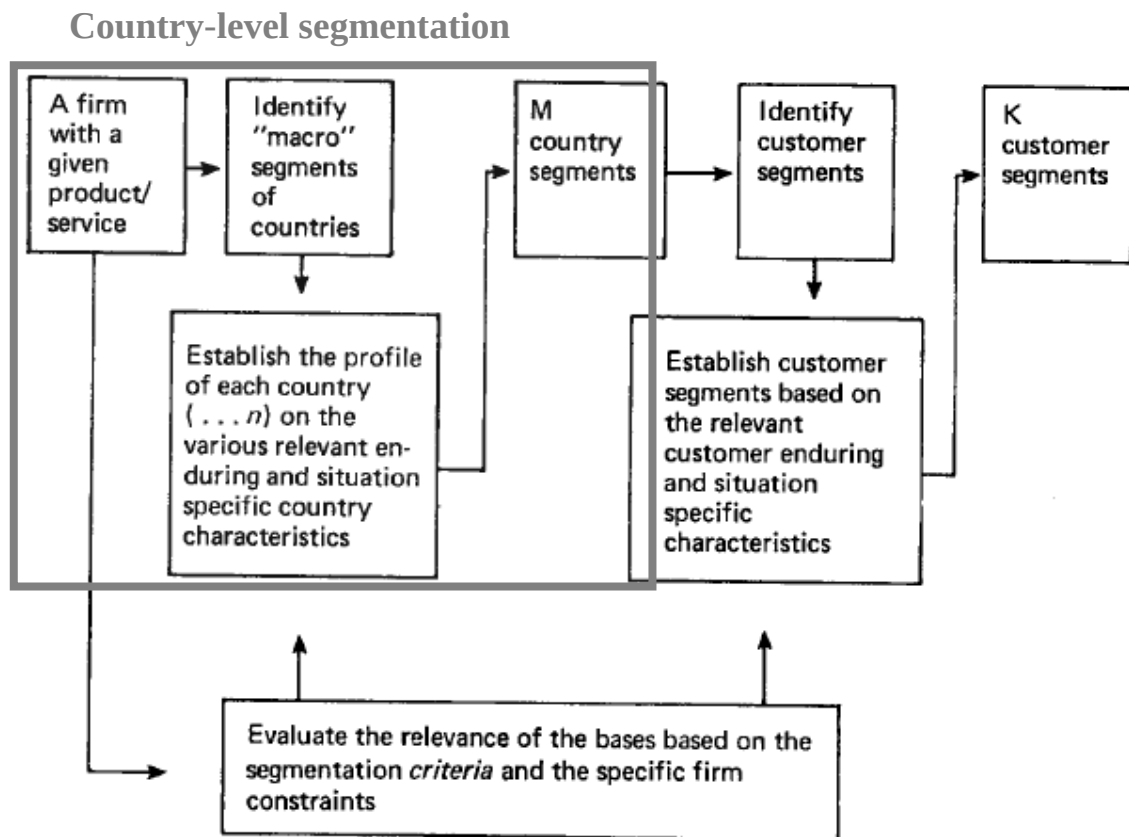


Figure A.1 The hierarchy of segments approach to international market segmentation

(Wind and Douglas 1972, p. 19)

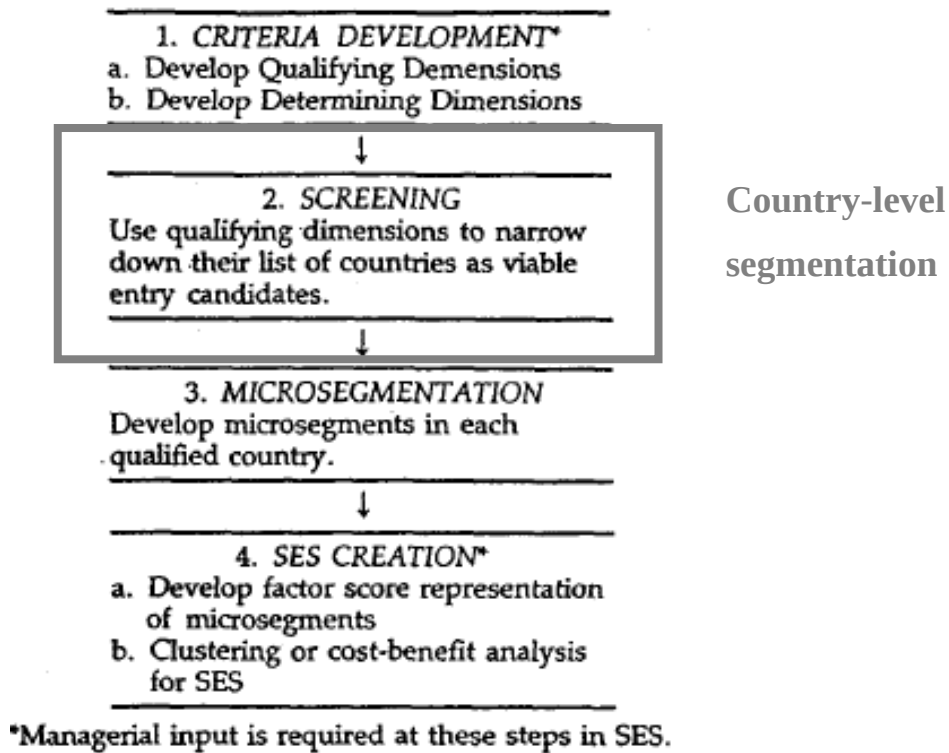


Figure A.2 Basic flow of strategically equivalent segmentation

(Kale and Sudharshan 1987, p. 62)

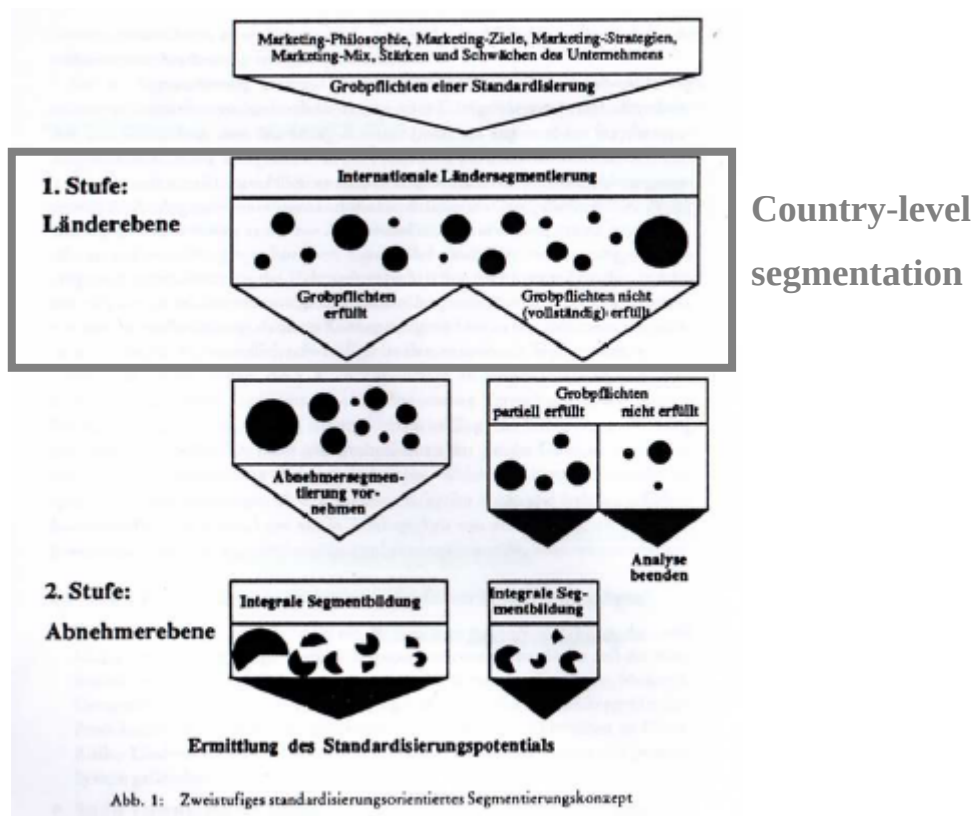


Figure A.3 Two-Step standardization-oriented segmentation concept

(Kreutzer 1991, p. 7)

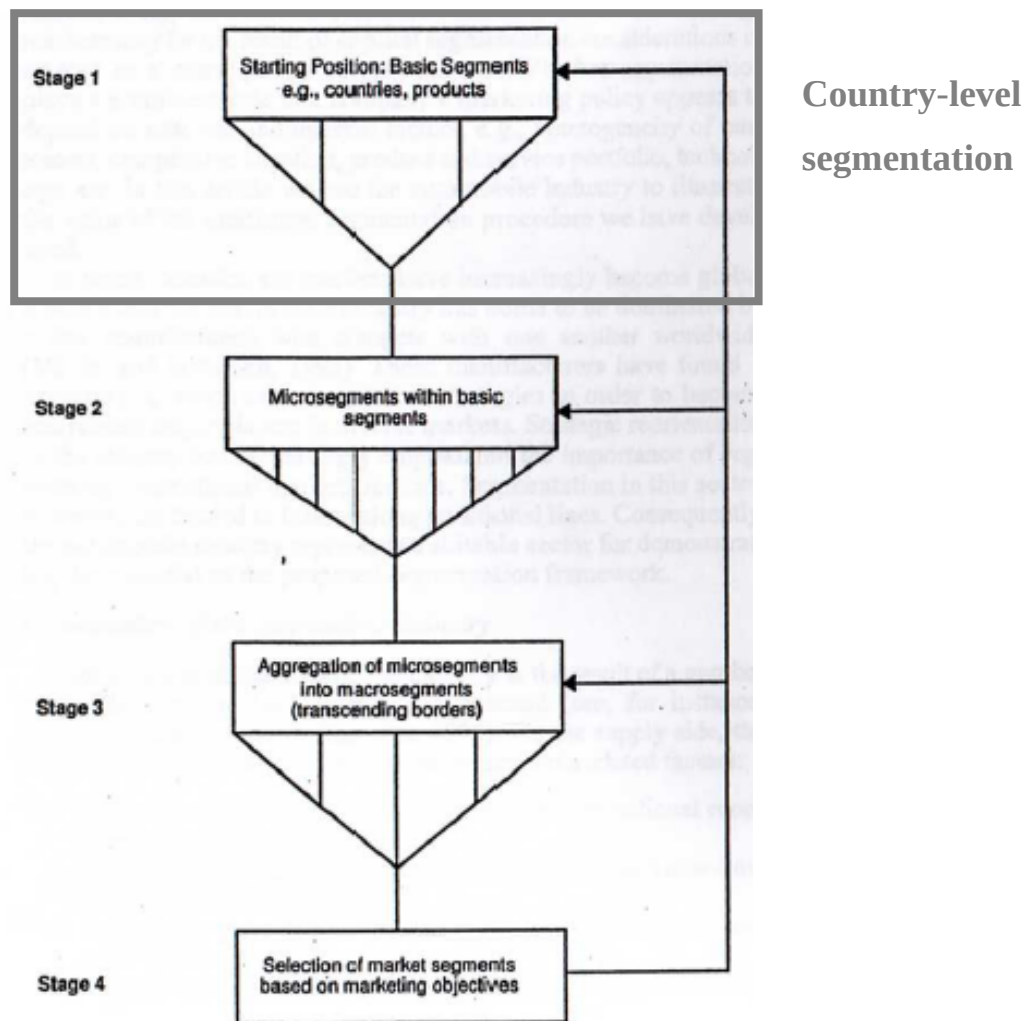


Figure A.4 A multistage procedure to segment international markets

(Hünerberg et al. 1997, p. 78)

Appendix B Indices

Table B.9.1 Single Indices

Index	Description	Source	Alignment
Population Growth Rate	annual percent change (+/-) in population resulting from a surplus/deficit of births over deaths and the balance of migrants entering/leaving a country	https://www.cia.gov/library/publications/the-world-factbook/index.html	general
Infant Mortality Rate	number of deaths of infants < 1 year in a given year / 1,000 live births in the same year	https://www.cia.gov/library/publications/the-world-factbook/index.html	demographic
Life Expectancy	average number of years to be lived by a group of people born in the same year (given constant mortality at each age in the future)	https://www.cia.gov/library/publications/the-world-factbook/index.html	demographic
Population 65+	% of population 65 years old and over	https://www.cia.gov/library/publications/the-world-factbook/index.html	demographic
Population below Poverty Line	% of population falling below poverty line	https://www.cia.gov/library/publications/the-world-factbook/index.html	demographic
Urban Population	% of total population living in largest cities	http://devdata.worldbank.org/wdi2006/contents/Section3.htm	demographic
Literacy	% of population able to read and write at a specified age	https://www.cia.gov/library/publications/the-world-factbook/index.html	social
Household Size	number of people living in one urban household nationwide	http://devdata.worldbank.org/wdi2006/contents/Section3.htm	social
Household Expenditure for Recreation and Culture	purchase of leisure time products as % of GDP	http://stats.oecd.org/WBOS/Index.aspx?DatasetCode=CSP6	social
Enforcing contracts	measure for the efficiency of contract enforcement by following the evolution of a payment dispute (in days)	www.doingbusiness.org/ExploreTopics/EnforcingContracts/	legal
Dealing with licenses	days to build a warehouse, obtaining necessary licenses and permits, completing required notifications and inspections	www.doingbusiness.org/ExploreTopics/DealingWithLicenses/	legal
Registering property	all payments to the property registry, notaries, public agencies or lawyers to register property (% of property value)	www.doingbusiness.org/ExploreTopics/RegisteringProperty/	legal
Days to start a business	time to complete all bureaucratic and legal requirements to start a business (in days)	www.doingbusiness.org/ExploreTopics/StartingBusiness/	legal
Labor Costs	yearly labor costs in manufacturing / worker (in \$)	http://devdata.worldbank.org/wdi2006/contents/Section2.htm	economic

Imports of Goods and Services	value of all goods/services provided to/received from the rest of the world as % of GDP	http://devdata.worldbank.org/wdi2006/contents/Section4.htm	economic
Consumer Price Inflation	annual percent change of average consumer prices (inflation)	http://www.imf.org/external/pubs/ft/weo/2007/01/data/weoselgr.aspx	economic
GDP/Capita	cost of all goods and services completed within a country divided by total population & expressed in U.S dollars	http://www.imf.org/external/pubs/ft/weo/2007/01/data/weoselgr.aspx	economic
Total tax payable	amount of taxes a medium-sized company has to pay or withhold in a given year (% of gross profit)	www.doingbusiness.org/ExploreTopics/PayingTaxes/	economic
Paved Roads	% of total roads paved	http://devdata.worldbank.org/wdi2006/contents/Section3.htm	infrastructural
Internet Users	number of internet users / 1,000 people	http://devdata.worldbank.org/wdi2006/contents/Section3.htm	infrastructural
Phone Subscribers	Fixed line&mobile phone subscribers / 1000 people	http://devdata.worldbank.org/wdi2006/contents/Section3.htm	infrastructural
Televisions/capita	number of televisions per 1,000 people	http://www.nationmaster.com/red/graph/med_tel_percap-media-televisions-per-capita;%20CIA%20Worldfactbook%202003&ob=ws ; CIA Worldfactbook 2003	infrastructural
Radios/capita	number of radios per 1,000 people	www.nationmaster.com/graph/med_rad_percap-media-radios-per-capita ; CIA Worldfactbook 2003	infrastructural
R&D Spending	R&D expenditures as % of GDP	http://devdata.worldbank.org/wdi2006/contents/Section5.htm	technological
Internet Selling	% of enterprises with 10 or more employees, which actively engage in online sales	www.oecd.org/document/23/0,2340,en_2825_495656_33987543_1_1_1_1,00.html	technological
Internet Purchasing	% of enterprises with 10 or more employees, which actively engage in online purchases	www.oecd.org/document/23/0,2340,en_2825_495656_33987543_1_1_1_1,00.html	technological
Access to Water	% of population with sustainable access to improved water source	http://devdata.worldbank.org/wdi2006/contents/Section3.htm	environmental
Energy Use	use of primary energy in kg of oil equivalent / capita	http://devdata.worldbank.org/wdi2006/contents/Section3.htm	environmental
Motor Vehicles	number of motor vehicles / 1,000 people	http://devdata.worldbank.org/wdi2006/contents/Section3.htm	environmental
Wildness	Percentage of land area having very low anthropogenic impact (population, land use, roads, railways,...)	http://sedac.ciesin.columbia.edu/es/esi/2005ESI_DataCoverage.xls	environmental

Religion	% of population being Christian/Jewish/Muslim/Hindu/Buddhist	https://www.cia.gov/library/publications/the-world-factbook/index.html	cultural
International Migration Stock	% of population born in a country other than that in which they live (including refugees)	http://devdata.worldbank.org/wdi2006/contents/Table6_14.htm	cultural

Table B.9.2 Composite Indices

Index	Description	Source	Alignment
Globalization Index	measure for economic (foreign trade and investments), social (foreign cultural influences) and political (international dissemination of government policies) globalization	http://globalization.kof.ethz.ch/	general
Gender-related development index (GDI)	index assessing the gender differences for life expectancy, education and living standards	http://hdr.undp.org/reports/global/2005/pdf/HDR05_HDI.pdf	social
Bertelsmann Management Index	quantitative measure to gauge the ability of politicians to manage transformation successfully	www.bertelsmann-transformation-index.de/fileadmin/pdf/BTI_2006_Ranking_GB.pdf	political
Bertelsmann Political Transformation Index	quantitative measure for the stability of democratic institutions, the condition of the state, political participation and constitutional legality	www.bertelsmann-transformation-index.de/fileadmin/pdf/BTI_2006_Ranking_GB.pdf	political
Press Freedom	measure of political and legal influences as well as economic pressures on the media environment	www.freedomhouse.org/template.cfm?page=204&year=2005	political
Corruption Perception Index (CPI)	degree to which corruption is perceived to exist among public officials and politicians	www.transparency.org/policy_research/surveys_indices/cpi/2005/media_pack	political
Failed States Index	12 political, economic, military, and social indicators of instability	http://www.fundforpeace.org/web/index.php?option=com_content&task=view&id=229&Itemid=366	political
Strength of Legal Rights Index	degree to which collateral and bankruptcy laws facilitate lending	www.doingbusiness.org/ExploreTopics/GettingCredit/	legal
Rigidity of Employment Index	measure for the flexibility of labor regulations	www.doingbusiness.org/economyrankings/?direction=Asc&sort=4	legal
Gini Index	measures the degree of inequality in the distribution of family income in a country	https://www.cia.gov/library/publications/the-world-factbook/index.html	economic
Global Competitiveness Index	composite index assessing productivity & competitiveness accounting for infrastructure, education, readiness for innovation, macroeconomic & technological issues	http://www.weforum.org/pdf/Global_Competitiveness_Reports/Reports/gcr_2006/gcr2006_summary.pdf	economic

Bertelsmann Economic Transformation Index	measure for the political and economic progress of a country including initiatives directed towards democracy and market economy by politicians	www.bertelsmann-transformation-index.de/fileadmin/pdf/BTI_2006_Ranking_GB.pdf	economic
Networked Readiness Index	composite index to assess the readiness for the usage of ICT distinguishing environmental issues, the level of readiness of the community's key stakeholders and the intensity of usage	www.weforum.org/pdf/GlobaI_Competitiveness_Reports/Reports/gitr_2006/rankings.pdf	technological
Ecological Footprint	area of biologically productive land and water needed to provide ecological resources and services – food, fibre, and timber, land on which to build, and land to absorb carbon dioxide (CO ₂) released by burning fossil fuels	http://www.panda.org/about_our_earth/all_publications/living_planet_report/living_planet_report_timeline/lp_2006/	environmental
Power Distance	extent to which power is distributed unequally as perceived by the less powerful	Hofstede, Gert H. (2001), Culture's Consequences: Comparing values, behaviors, institutions, and organizations across nations. Thousand Oaks, California: Sage Publications.	cultural
Masculinity/Femininity	degree to which social gender roles differ		cultural
Individualism/Collectivism	measure for the relationship between the individual and society		cultural
Uncertainty Avoidance	extent to which uncertain and unknown situations are perceived as threatening		cultural
Long/Short Term Orientation	measure for the orientation of society towards the future or the past		cultural
Conservatism	importance of traditions and participation in/identification with society	Schwartz, Shalom H. (1994), "Beyond Individualism/Collectivism - New Cultural Dimensions of Values," in Individualism and Collectivism: Theory, method, and applications, U. Kim and H.C. Triandis and C. Kagitcibasi and S.-C. Choi and G. Yoon, Eds. Thousand Oaks, CA: Sage Publications.	cultural
Intellectual Autonomy	measure for the degree of self determination		cultural
Affective Autonomy	measure for the importance of hedonism and variety in life among members of society		cultural
Hierarchy	legitimacy of ascribed, hierarchical roles and resource allocation		cultural
Mastery	intent to actively change and control one's surroundings		cultural
Egalitarian Commitment	voluntary commitment to support others		cultural
Harmony	acceptance and conservation of the world as it is and a life in harmony with nature		cultural

Human Orientation Practices	measure for the relations between family/society members determining family/society life as they are	Kabasakal, Hayat and Muzaffer Bodur (2004), "Humane Orientation in Societies, Organizations, and Leader Attributes," in Culture, Leadership, and Organizations, Robert House, Paul Hanges, Mansour Javidan, Peter	cultural
Human Orientation Values	measure for the relations between family/society members determining family/society life as they should be	Javidan, Mansour (2004), "Performance Orientation," in Culture, Leadership, and Organizations, Robert House, Paul Hanges,	cultural
Performance Orientation Practices	measure for the importance of achievements and assertiveness or personal relations and harmony as they are	Mansour Javidan, Peter Dorfman and Vipin Gupta, Eds. Thousand Oaks, CA: Sage Publications.	cultural
Performance Orientation Values	measure for the importance of achievements and assertiveness or personal relations and harmony as they should be		cultural

Appendix C Viscovery Profiler Output

C.1 Country groupings Fruit Juices

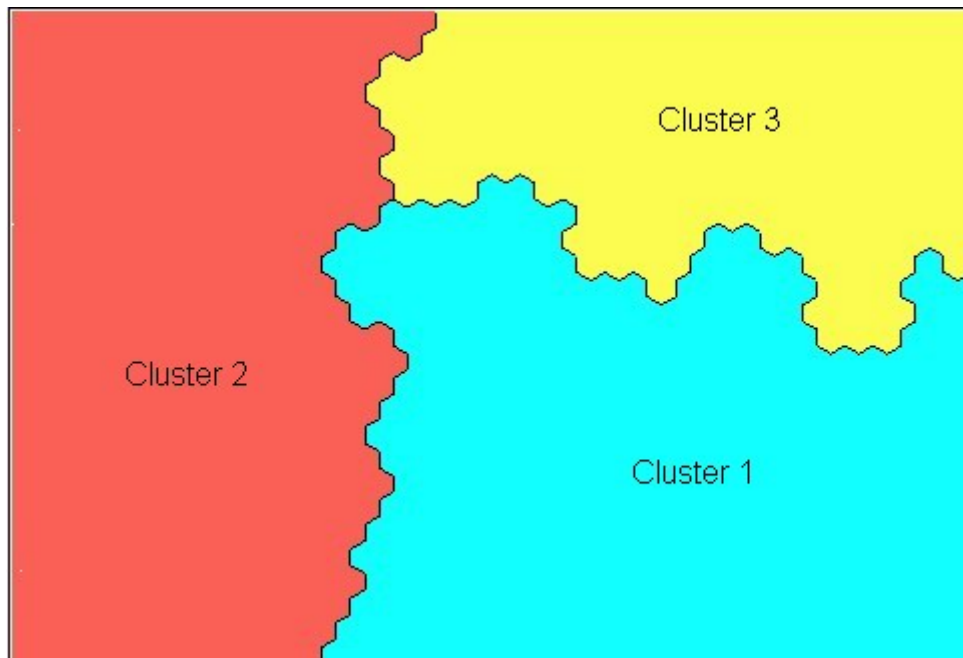


Figure C.1 Pre-screening step Fruit Juices: Cluster map

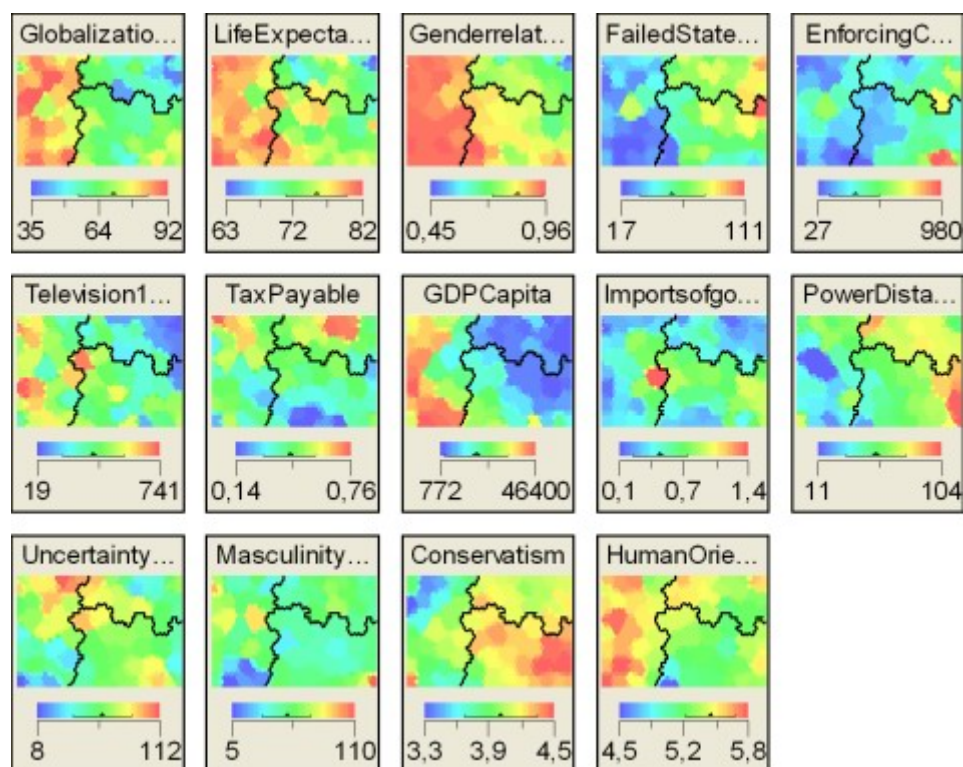


Figure C.2 Pre-screening step Fruit Juices: Cluster profiles for attributes

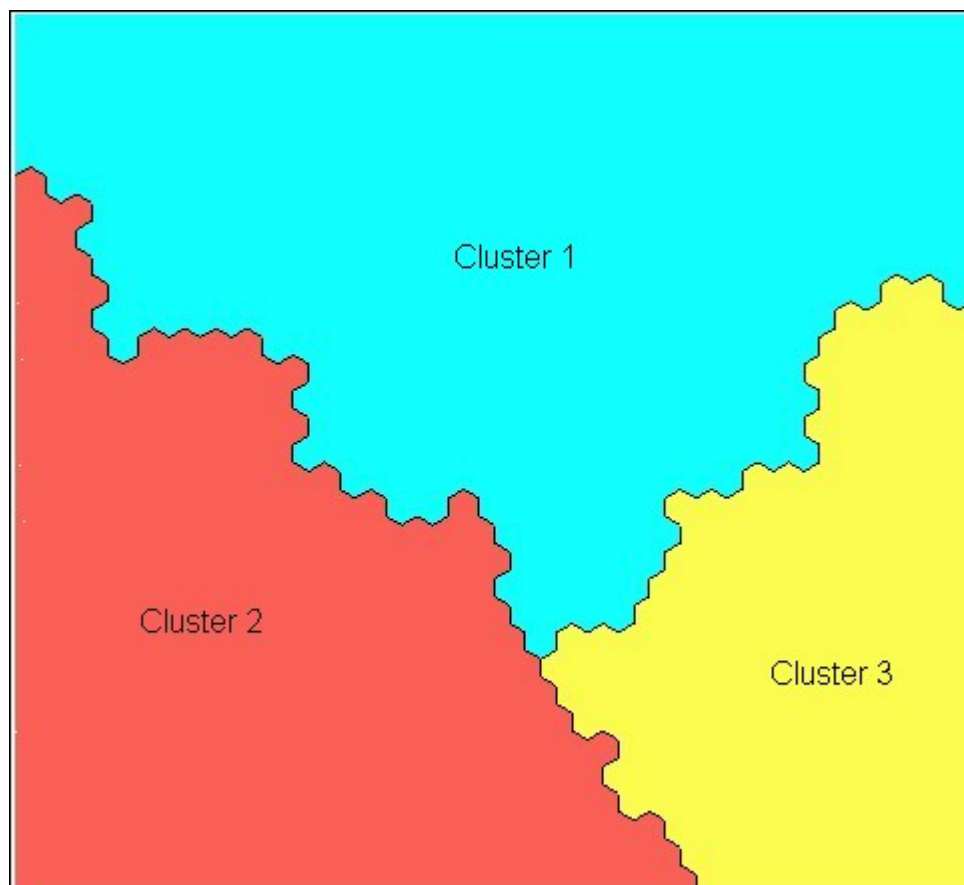


Figure C.3 Market segmentation Fruit Juices: Cluster Map

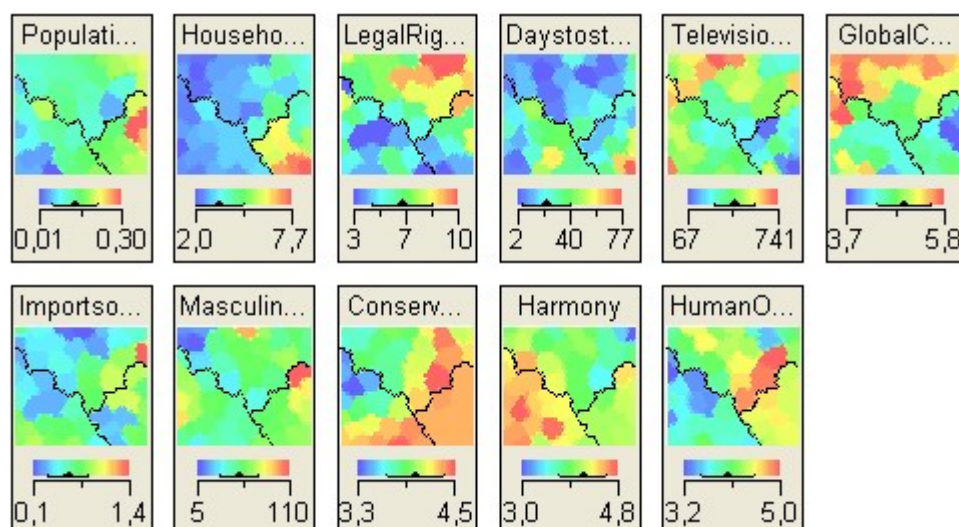


Figure C.4 Market segmentation Fruit Juices: Cluster profiles for attributes

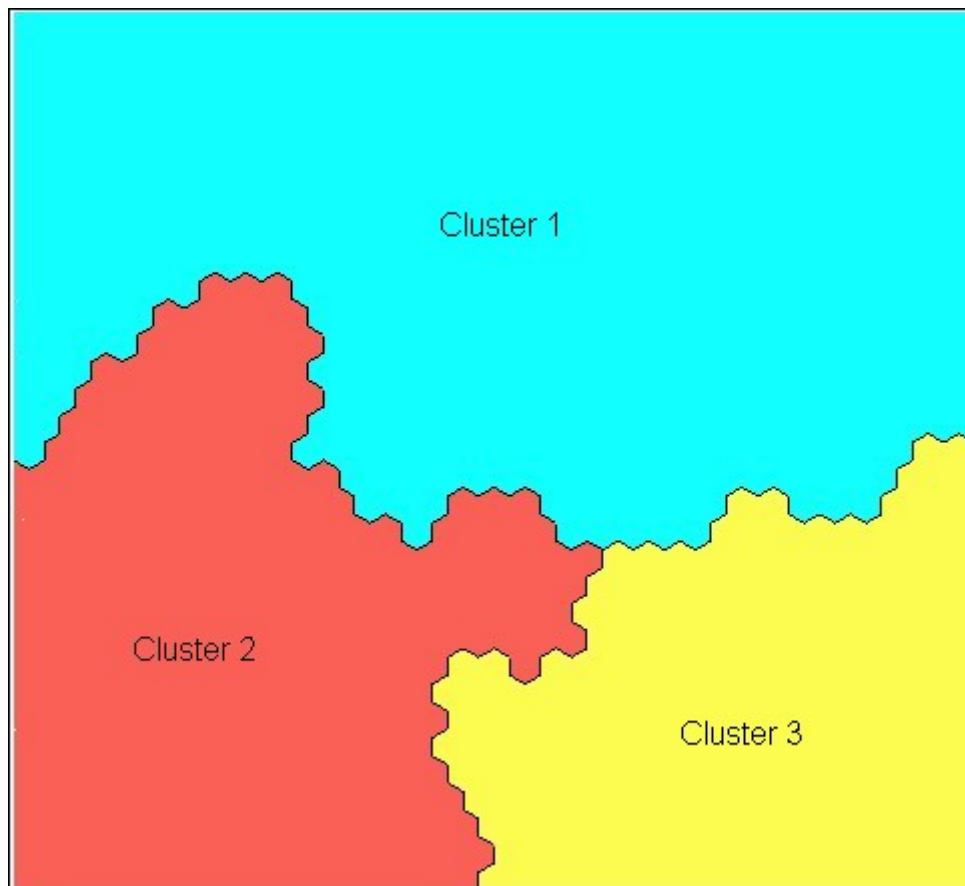


Figure C.5 Market segmentation incl. religion Fruit Juices: Cluster map

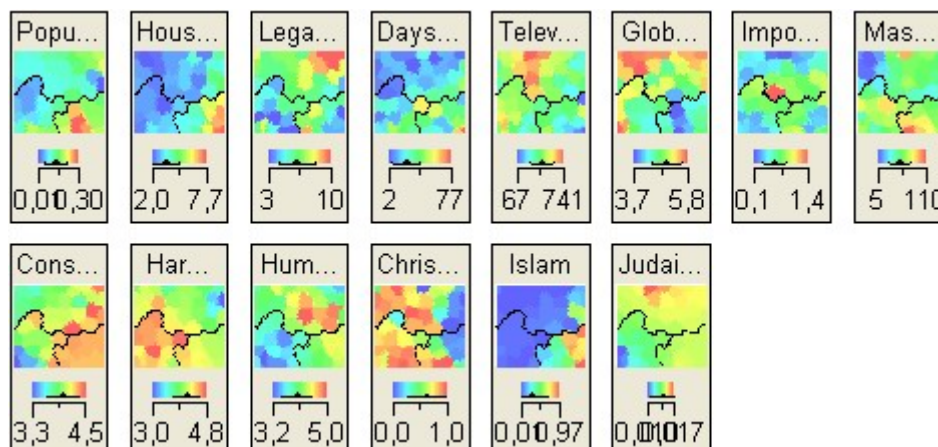


Figure C.6 Market segmentation incl. religion Fruit Juices: Cluster profiles for attributes

C.2 Country groupings Fashion

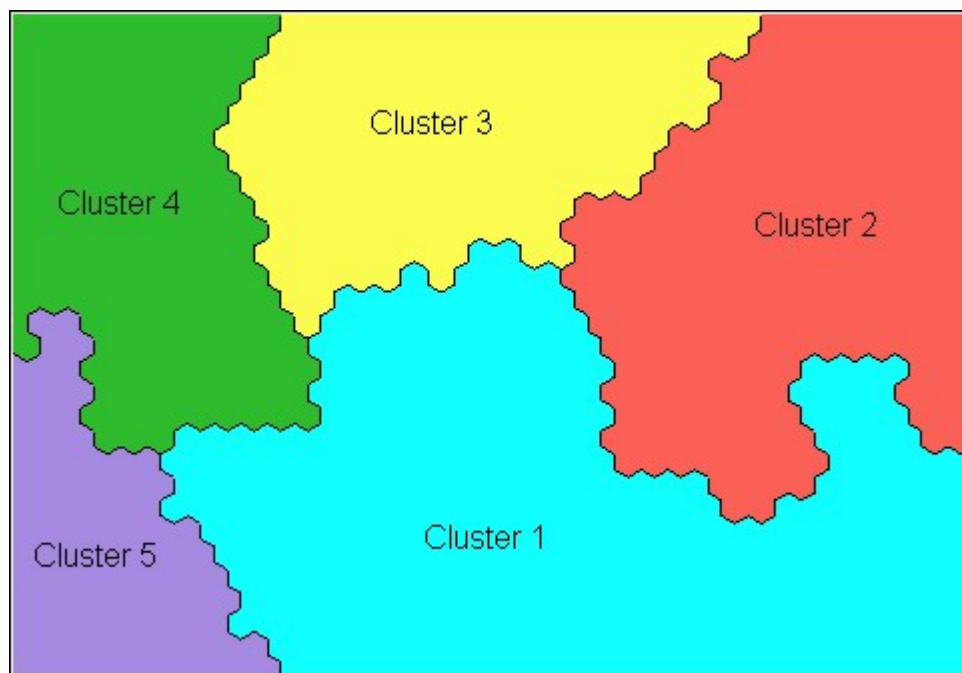


Figure C.7 Pre-screening step Fashion: Cluster map

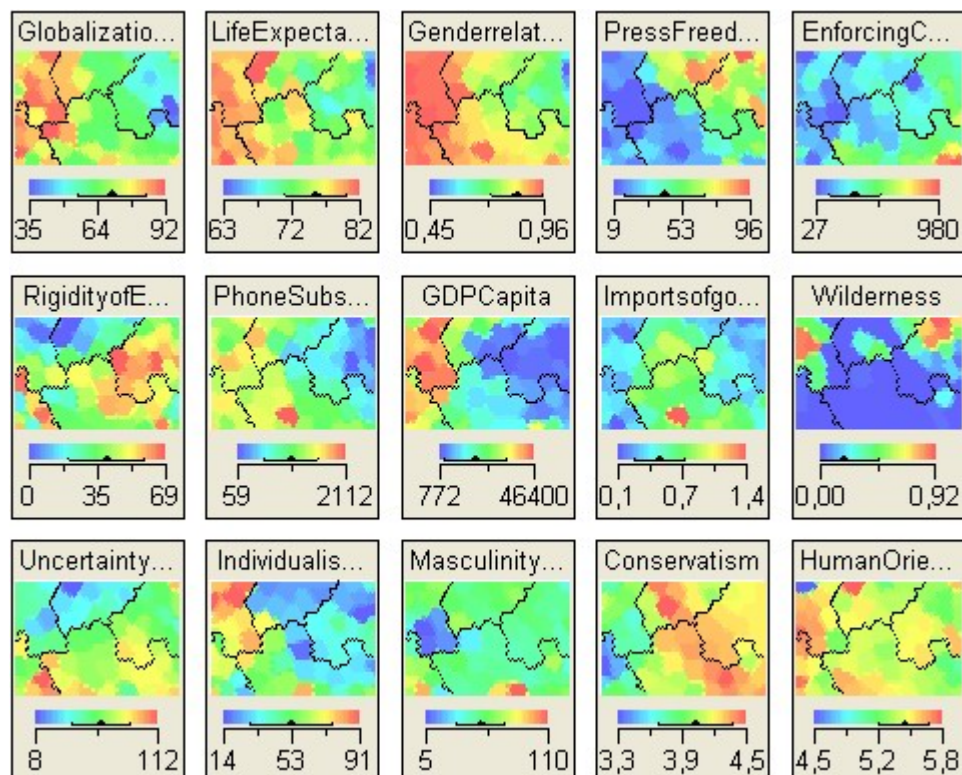


Figure C.8 Pre-screening step Fashion: Cluster profiles for attributes

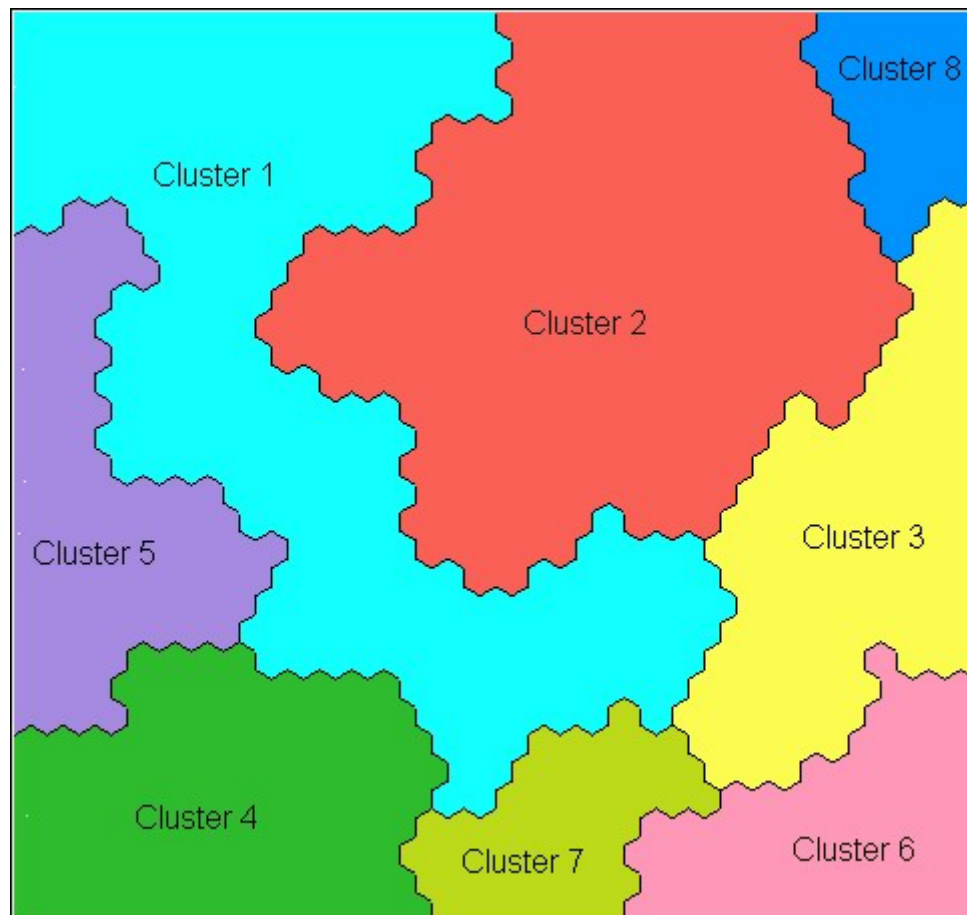


Figure C.9 Market segmentation Fashion: Cluster Map

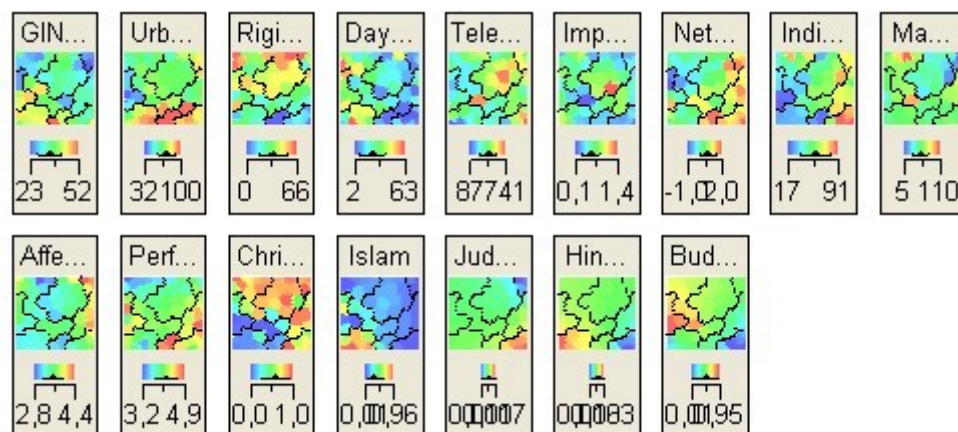


Figure C.10 Market segmentation Fashion: Cluster profiles for attributes

Zusammenfassung

Grundlegende Unterschiede in den Marktgegebenheiten und Konsumentenbedürfnissen beeinflussen den Erfolg oder Mißerfolg eines Unternehmens in internationalen Märkten signifikant. Eine Analyse der externen Marktgegebenheiten sowie eine sorgfältige Auswertung allfälliger Unterschiede im Konsumentenverhalten unterstützt Unternehmen dabei, erfolgreiche Marketingstrategien, basierend auf einem Wechselspiel von Standardisierung und Adaptierung, zu entwickeln. Eine sorgfältige Marksegmentierung, gefolgt von einer durchdachten Auswahl der Zielmärkte, ermöglicht es den Firmen, homogene Untergruppen von Konsumenten zu identifizieren und gegebenenfalls erfolgsversprechende Zielgruppen herauszufiltern. Obwohl die Marktsegmentierung und die Wahl des Zielmarktes in der Literatur generell getrennt betrachtet werden, vermag eine vorangehende Segmentierung die Auswahl vielversprechender Märkte zu erleichtern, da der Markteintritt in die Länder innerhalb eines erfolgsversprechenden Clusters nacheinander, in der Reihenfolge ihrer Ähnlichkeit mit bereits bestehenden Märkten, geplant werden kann. Im Allgemeinen erfolgt die Analyse der Marktgegebenheiten sowohl bei der Marktsegmentierung als auch bei der Marktselektion über ähnliche Kennzahlen. Neben allgemein bekannten einfachen Kennzahlen, die wirtschaftliche, demographische, technologische, soziale, rechtliche, politische, infrastrukturelle und ökologische Faktoren erfassen, können zusammengesetzte Indizes, z.B. Globalisierungsindex oder die Bertelsmann Indizes, neue Einblicke in die Evaluierung komplexer Markteigenschaften gewähren. Die Quantifizierung kultureller Gegebenheiten durch internationale Studien, z.B. GLOBE Projekt, Hofstede's IBM Studien oder dem Schwartz Wertesystem, trägt zusätzlich zur umfassenden Bewertung der Marktsituation bei.

Auf einen Großteil der erforderlichen Daten kann man heutzutage schon über die Internetseiten verschiedener internationaler Organisationen zugreifen. Auch wenn die Verwendung von Sekundärdaten zu Zwecken der internationalen Marksegmentierung und Marktselektion durch die allgemeinen Probleme, die Verfügbarkeit, Genauigkeit und Vergleichbarkeit derartiger Daten betreffend, beeinträchtigt wird, so stellen Sekundärdaten doch eine rasch verfügbare und besonders kostengünstige Datenquelle dar, um vielversprechende Märkte zu identifizieren. Die Auswahl der 63 Indizes für meine Diplomarbeit wird mit Hinblick auf ihre Relevanz für Marketingentscheidungen

in internationalen Märkten getroffen. Die ausgewählten Kennzahlen werden zu einer der folgenden 10 Kategorien zugeordnet: generelle Faktoren, demographische Faktoren, soziale Faktoren, politische Faktoren, rechtliche Faktoren, ökonomische Faktoren, infrastrukturelle Faktoren, technologische Faktoren, ökologische Faktoren und kulturelle Faktoren. Eine Hauptkomponentenanalyse, die innerhalb der 10 Kategorien durchgeführt wird, zeigt Untergruppen in den Kategorien rechtliche, ökonomische, ökologische und kulturelle Faktoren auf. Die resultierenden 17 Gruppen von Variablen unterstützen insbesondere die Auswahl relevanter Indizes für eine Vorselektion der Länder um grundsätzlich unattraktive sowie riskante Märkte von der weiteren Analyse auszuschließen. Zwei hypothetische Firmenbeispiele sollen eine mögliche Auswahl geeigneter Indizes aufgrund der subjektiven Einschätzung der Unternehmenssituation mit Hinblick auf unterschiedliche Produkte veranschaulichen und die mögliche Verwendung der Variablen bei Marktsegmentierung und Marktselektion aufzeigen. Die Ländergruppen wurden mithilfe des Softwareprogramms Viscovery Profiler basierend auf einer Kombination der hierarchischen Clustermethode nach Ward und neuronalen Netzwerkalgorithmen gebildet, um eventuelle Schwächen herkömmlicher Clustermethoden zu vermeiden. Eine kritische Auswertung der Ländercluster zeigt, dass sich die einzelnen Ländergruppen, die im Zuge der Vorselektion gebildet wurden, sehr ähnlich sind, da in beiden Fällen beinahe idente Datensätze verwendet wurden. Die Auswahl vorwiegend unterschiedlicher Variablen für die beiden hypothetischen Fallbeispiele in der eigentlichen Analyse resultiert hingegen in zwei sehr verschiedenen Lösungen.

Die Möglichkeit der interaktiven Auswahl der Indizes stellt den größten Vorteil der vorgeschlagenen Herangehensweise dar, da die Variablen im Hinblick auf die spezifische Unternehmenssituation ausgewählt werden können. Andererseits kann die unüberlegte Auswahl wenig relevanter Indizes aber auch zu nicht aussagekräftigen Ländergruppierungen für das Unternehmen führen. Die Integration komplexer Indizes stellt sich als eher schwierig heraus, da hohe Korrelationen mit anderen Variablen die Lösung beeinträchtigen könnten. Die Verwendung kultureller Faktoren ermöglicht eine umfassendere Analyse der Marktsituation, auch wenn kulturelle Gegebenheiten schwer quantifizierbar sind und diesbezügliche Daten daher oft veraltet oder schwer zugänglich sind. Die Einbindung der Daten in ein Softwareprogramm mit periodischen Aktualisierungen könnte Entscheidungsträger in Unternehmen auf den ersten Schritten Richtung Internationalisierung und internationaler Marktsegmentierung unterstützen.

Curriculum Vitae

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