A PROPOSAL FOR A DYNAMIC DESTINATION IMAGE INDEX: CONCEPT, CONSTRUCTION, AND VALIDATION

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ABSTRACT


In the field of destination image research, the study proposes a concept of a Dynamic Destination Image Index (DDII), an objective, quantifiable, and integral measure that would reflect destination perceptions of potential travelers through time. The author maintains that such a measure can be derived through content analysis of relevant media materials that date back into the past and provide a record of destination image changes, rather than surveys of human subjects. The study conceptualizes the DDII, proposes a methodology for its construction, demonstrates how the methodology can be applied, and validates the obtained indices, using them in models of tourism demand.

The proposed methodology is based on content analysis of relevant media materials and destination image theory. The DDII is essentially a time series that reflects the frequency of news published about the destination in a particular country and the favorability of media coverage. The index is dynamic, since it reflects changes in media coverage from one period to another. It is objective because it is based on content analysis methodology, a long-standing and proven approach of drawing inferences from textual content. It is integral because it summarizes the wealth of media materials published about a particular destination to a limited number of time series data. DDII can be obtained for any “destination-country of origin” pair of countries in the form of weekly, monthly, quarterly, or annual time series.
To demonstrate how DDII indices can be constructed, two separate DDII studies were conducted for two dissimilar destinations: (1) Aruba on the US market and (2) Russia on the UK market. Both studies used newspapers as a source of media content. To validate the DDII-Aruba and DDII-Russia, each index was used in a separate econometric model of tourism demand. The results indicate that models that include the DDII series perform significantly better than the restricted models with traditional economic variables.

The study has both theoretical implications and practical relevance. From the theoretical perspective, the research addresses the conceptual and operational issues that arise in quantifying media messages. From a practical perspective, DDII is seen as a useful tool that can assist destination DMOs in monitoring destination image as projected by media on various markets. It is suggested that the DDII index can be useful for destination positioning, assessing the effectiveness of promotional campaigns, and, potentially, forecasting tourism demand to the destination.
CHAPTER 1. INTRODUCTION

1.1. Overview

In the current marketplace, tourism is one of the fastest growing industries. People travel in increasing numbers to various destinations; some destinations become fashionable, while others fall out of favor for a variety of reasons. In the modern world, there is competition for tourists among destinations. Destination management organizations (DMOs) strive to understand how destinations come into a consumer consideration set, and why people prefer one destination to several other, seemingly similar places (Woodside & Lyonski, 1989). The concept of destination image therefore becomes crucial, as consumer behavior theory states, people act on their images and perceptions rather than on facts (Boulding, 1956). Strong images, or brands, influence people’s perceptions of particular destinations (Gensch, 1978; Gartner, 1993).

The media heavily influences public awareness, perceptions, and behavior, including buying decisions (Macnamara, 2006). There is an age-old and still ongoing debate over whether mass media creates public opinion, attitudes, and perceptions or simply reflects existing attitudes, perceptions, and culture. Most media researchers agree that, with some limitations, mass media does both. The influence of mass media on shaping public knowledge, beliefs, and opinions has been excessively studied within a “mass media effects research” framework. Effects research analyzes the impact and influence of the media on audiences utilizing a whole range of methodologies, including empirical studies, “uses and gratification approaches,” reception analysis, and cultural studies. These various traditions can be placed on a continuum describing the strength of the media in shaping the audiences ideas, feelings, and motivations (Ravault, 1986). At one end of this continuum are studies arguing that the media are extremely powerful in convincing and indoctrinating the public, and on the other – research emphasizing the
power of audiences to make their own interpretations of media messages (Hall, 1980). The duality of media effects on the public is also reflected in the behaviorist and the humanist approaches to the analysis of media messages (Shoemaker & Reese, 1996). The behaviorist approach is primarily concerned with the effects that media produces; it aims to identify future effects of media communications on audiences. The humanist tradition considers media content as a source of information about society and the culture producing it.

Destination images are reflections of all knowledge, impressions, imaginations, or beliefs that individuals or groups of people might have about a particular place (Baloglu & McCleary, 1999; Lawson & Baud-Bovy, 1977). Representations of these images in media and destination decision making have been an area of inquiry of tourism scholars since the 1970s (Bandyopadhyay & Morais, 2005; Chon, 1990; Crompton, 1979; Gartner, 1993; Lawson & Baud-Bovy, 1977; Mayo, 1973; Mercille, 2005). It has been recognized that popular culture and representations in mass media have a significant impact on destination image. For instance, in the social sciences literature, Urry (1990:3) argued that the tourist impression “is constructed and sustained through a variety of non-tourist practices, such as film, TV, literature, magazines, records, and videos” (see also Morgan and Pritchard, 2004). In the marketing literature, researchers maintain that representations shape image, having described this process through several typologies (Butler, 1990; Gartner, 1993; Phelps, 1986). Mercille (2005) used a theoretical model provided by Hall (1980) and compared media productions consulted by tourists to Tibet with tourists’ perceptions of the region. Medium to strong congruence was found between representations and destination images.

A detailed typology of destination image formation agents from the perspectives of their influence and credibility can be found in Gartner (1993). As Gartner argues, more credible agents are those that do not have a vested interest in promoting a destination, i.e., general newspapers, mass-media broadcast news, television programs, documentaries, travel guides, books, as well as word of mouth, which are collectively referred to as organic information sources. Studies of media communication content conducted by
social scientists, for instance, research on presidential campaigns and/or propaganda, reveal that data derived from media messages correlate with other indicators obtained independently, and as such validate media content analysis results (Lasswell, Lerner, & Pool, 1952). Similarly, this study proposes that destination images are captured by the media and can be retrieved by analysis of relevant textual messages. If media materials are viewed as a record of changes that reflects public perception of a destination, then there should be ways to measure these perceptions objectively. However, research, which would investigate how destination image is captured in media materials and manifested through media content through time is lacking.

Image is subject to time, to news coverage, to changing perception (Sonmez & Graefe, 1998). As Boulding (1956:5) argued in his seminal work “The Image,”

“When a message hits an image, one of three things can happen. In the first place, the image may remain unaffected. Second, it may change the image in some rather regular and well-defined way that might be described as simple addition. A third type of change of the image might be described as a revolutionary change. Sometimes a message hits some sort of nucleus of supporting structure in the image, and the whole thing changes in a quite radical way.”

However, a quantifiable measure of these changes is a difficult task, since the construct of image, destination image included, incorporates numerous factors (Hunt, 1975; Echtner & Ritchie, 1993; Baloglu & Brinberg, 1997). There have been several attempts by tourism scholars to create various measures capturing changes in destination image. Baloglu (2001) proposed a familiarity index, which reflected the differences in image perception depending on the level of familiarity of respondents with a destination. Mallou et al. (2006) developed a survey-based destination image index that ranks various destinations in terms of consumer perceptions of multiple destination attributes. In the marketing field, a well-known measure that ranks countries in terms of strength of their brand is the Anholt Brand Nation (ABN) index constructed for 35 countries based on results of quarterly consumer surveys conducted in 10 countries. Brand strength is
evaluated on eight perspectives, with tourism being one of them. Although the number of countries for which the ABN index is calculated is expanding, small tourist destinations are not included in the index, since their brands are not considered influential. Assessment is relative to other countries rather than reflecting an absolute progress or regress in brand image. In addition, the ABN index is not specific for a particular market but is an averaged measure over 10 panel countries.

The competitiveness of tourist destinations is becoming increasingly important for policy makers as they strive for a bigger share of travel and tourism destination market. A recent methodology proposed by Gooroochurn and Sugiyarto (2005) attempts to evaluate countries in terms of their relative competitiveness by constructing the Competitiveness Monitor (CM), a set of eight indices on price, openness, technology, infrastructure, human tourism, social development, as well as on environmental and human resources competitiveness. The socio-economic indicators for the CM construction for more than 200 countries are available through the World Bank and the United Nations Development Programme (UNDP); however, the latest date for which the CM can be constructed is the year of 2004. The proposed socio-economic indicators are strictly factual and include such destination characteristics as the length of all roads or the inflation rate. Such destination characteristics probably cannot be known to a great many of potential tourists, nor can they relate to the destination consumer on the emotional level.

Various approaches to constructing destination indices implemented to date show the need for an objective measure of destination performance (Mallou et al., 2006; Gooroochurn & Sugiyarto, 2005). However, an index that would consistently assess the destination image at regular periods and be sufficiently sensitive to reflect changes in image has not been proposed to date. Such an index is highly desirable, since one can think of numerous possible applications of such an index in tourism research. For one, accurate forecasting of tourist flows is very important for destination planning and management: if a hotel room is not occupied today, the financial loss cannot be recovered by selling it two times tomorrow, since tourist products are perishable and cannot be stored for future use. Tourism researchers universally agree that destination image is an
important factor influencing tourist behavior with regard to vacation purchase (Chon, 1990); however, this qualitative factor of image is difficult to include into econometric models because such models are time-series based. Therefore, the image has to be dynamic, i.e., be in a form of time-series as well. Current methods of measuring destination image are not suitable for this purpose: being based on traveler surveys, they reflect the current state of image perception. Another possible application of a dynamic index is assessment of effectiveness of destination promotional campaigns on a particular market. The dynamics of changes in image as reflected by mass media on a given tourist market can serve as an indicator of how successful the destination DMO has been in its promotional efforts.

1.2. Problem Statement

Destination image construct is lacking an objective, quantifiable, and integral measure, which would reflect the dynamics in its perception among potential travelers through time. Destination image indices that have been proposed to date are not widely used. They are primarily based on consumer surveys and, therefore, static, i.e., reflect the current state of image perception. Obtaining such indices on a regular basis is costly and time consuming for destination marketing organizations. At the same time, media materials, for example, newspaper archives, travel journals, and/or travelers’ postings in virtual communities, through which destination image is manifested, are readily available. These materials provide a record of destination image changes through time, and such changes should, potentially, be quantifiable with any chosen time interval – a week, a month, a quarter, or a year. Thus, there is a need for a methodology to capture these changes in a form of a Dynamic Destination Image Index (DDII). The DDII should be an absolute measure of image performance rather than that of relative to other destinations. The methodology should be based on content analysis of media materials, which is an objective, long-standing research technique, and be sensitive enough to reflect changes in destination coverage that might be due to a variety of reasons: for example, negative events that happened at the destination, or changing public attitudes towards that destination. The methodology should be flexible enough to construct DDII
as a time-series for any destination on any tourist market. Among possible applications of such a DDII are econometric models of tourism demand, forecasting of tourist arrivals, and evaluations of effectiveness of promotional campaigns.

1.3. Purpose of the Study

The purpose of this study is two-fold. First, the study proposes a methodology for constructing a Dynamic Destination Image Index (DDII) that is able to capture changes in destination image perceptions through time. The proposed methodology is based on the content analysis of relevant media materials. Second, the study validates the proposed DDII by using it to explain tourist arrivals for two destinations – Aruba and Russia.

1.4. Objectives

The specific objectives of this study are:

1. To conceptualize the Dynamic Destination Image Index (DDII) firmly grounded in the theory of destination image and content analysis methodology.
2. To develop a methodology for constructing the DDII.
3. To demonstrate how the proposed DDII can be operationalized using two dissimilar destinations, Aruba and Russia, as examples.
4. To validate the DDII-Aruba and DDII-Russia by using the constructed indices in models of tourism demand.

1.5. Organization

This thesis has seven chapters and is organized as follows:

1. Chapter 1 describes the research idea, the specific objectives of the study, as well as its significance and possible applications in tourism-related research.
2. Chapter 2 provides a literature review of the following topics:
   □ Destination image construct, its conceptualization and measurement;
Current trends in destination image research as a setting for a proposal for the Dynamic Destination Image Index;

Content analysis of media from a historical perspective;

Quantitative versus qualitative epistemologies of content analysis; and

Indices in social sciences obtained by content analysis and an overview of index typology; and

Qualitative factors used in modeling product demand.

3. Chapter 3 outlines the main steps of a proposed approach for constructing the DDII and provides theoretical aspects of content analysis methodology involved into these steps:

- Defining textual population of relevant textual messages;
- Selecting a sample of textual messages;
- Defining categories, or variables, for content coding;
- Defining units of content analysis;
- Coding textual content into specified categories;
- Assessing favorability of media messages;
- Estimating reliability of coding; and
- Providing validity indications for results obtained in content analysis studies.

4. Chapter 4 is a pilot study which demonstrates the methodology proposed in Chapter 3 using an example of Aruba, a mature “sea, sand, and sun” destination. The monthly DDII series are constructed using media messages from prominent U.S. newspapers for a period of May 2004-April 2006. This particular period is chosen to demonstrate that the proposed DDII is sensitive to negative media coverage in connection with the disappearance of an American teenager Natalee Holloway in May 2005 on the island of Aruba. To validate the index, the obtained DDII series are used in a regression model to explain the total arrivals to Aruba.

5. Chapter 5 demonstrates how the DDII can be constructed for a more complex destination and longer time period: it deals with media messages about Russia from the most prominent British newspapers for a period of 1992-2007. The
quarterly DDII time series are validated in a model of total and leisure UK arrivals to Russia.

6. Chapter 6 discusses theoretical implications, methodological considerations, and practical relevance of the proposed approach. It specifically highlights strengths and weaknesses of the proposed methodology for constructing the DDII and its application scope. Directions for further research are also suggested.

1.6. Significance of the Study

The proposed research has both theoretical and practical significance. Theoretically, DDII conceptualizes destination image as a numerical time series derived from media materials using content analysis methodology and adds to various methodologies of destination image measurement described in section 2.2.2. Traditionally, tourists’ perceptions of destination image attributes have been measured by batteries of scales that capture cognitive and affective components of destination image construct (Baloglu & McCleary, 1999; Echtner & Ritchie, 1991). Perceptions of a more holistic nature have been assessed by content analysis of relevant textual materials, e.g., open-ended responses to survey questions (Echtner & Ritchie, 1993). Projected images have been measured by studying content of promotional materials distributed by DMOs (e.g., Bandyopadhyay & Morais, 2005). However, these assessments of destination image are static, i.e., they reflect current state of destination image as perceived by potential visitors or projected by DMOs. It is virtually impossible to estimate image perceptions dynamically by using human subjects, since the same sample of respondents needs to be surveyed many times at regular intervals. Yet, if dynamics in destination image perceptions are captured, it can shed light on how the destination has been performing and in what aspects its image needs improvement. In view of this, the dynamic nature of the destination image is captured by the proposed DDII from the two aspects: time and space. With respect to time, the DDII is constructed by analysis of media materials from different time periods. With respect to space, the DDII can be obtained from media sources at various tourist markets, both geographically close and far from the destination.
Thus, the proposed DDII expands the theoretical concept of destination image and presents it as a numerical record of image change on any tourist market.

The proposed concept of the DDII has practical relevance as well. It has been widely accepted that destination image is an important factor in consumer travel buying behavior. At the same time, tourism scholars agree that the econometric models of tourism demand are lacking explanatory variables which account for qualitative factors pertinent to tourist decision-making process (Li, Song, & Witt, 2005; Lim, 1997; Song & Witt, 2000). These factors have been previously included in models of tourism demand in the form of “dummy” variables. However, such an approach is limited for, primarily, two reasons. First, because the period of influence of a particular “dummy” variable is difficult to define; thus, it is seldom more than arbitrary. Second, “dummy” variables cannot reflect dynamic changes in qualitative variables; rather, they indicate presence or absence of a certain factor. In general, “dummy” variables are more suitable for accounting for rare events of a substantial impact such as a terrorist attack, an epidemic, or a large sporting event like Olympic Games. Nevertheless, even in these cases, the first limitation, the arbitrary nature of the period of influence, is unavoidable.

Econometric models of tourism demand are based on the theory of rational consumer behavior (Sargent & Wallace, 1976; Deaton & Muellbauer, 1980). The theory postulates that, in making buying choices, consumers have all relevant information at their disposal, able to compare alternatives, and always aim to maximize utility. Since destination product is very complex, these assumptions are very likely to be a rough approximation of how consumers behave with regard to purchasing destinations. A DDII, reflecting changes in the perceived image of a destination, can be included as a variable in tourism demand models to explain variations unexplained by traditional economic variables. In fact, with the DDII, the hypothesis of rational consumer behavior with regard to purchasing destination products can be tested. Several studies show that complex econometric models cannot convincingly outperform simpler models like random walk or static singular equation regression (Song, Witt, & Jensen, 2002). Tourism scholars have been making econometric models more and more complex in both
functional form and estimation methods used; however, the performance is still inadequate (Li et al., 2005). If the proposed DDII is validated, it might be a useful factor in improving model fit. Possible economic applications of the DDII would include tourist forecasts, assessments of the nature of destination competitiveness, i.e., whether destinations are substitutes or complements, and tracking the effectiveness of promotional campaigns in the targeted markets.
CHAPTER 2. LITERATURE REVIEW

Chapter 2 explains the construct of destination image and provides background information on previous destination image research. It also gives a brief literature review on various aspects of destination image and its measurement, as well as factors that influence destination image formation and change. Some of the changes in destination image research highlighted in Chapter 2 include the application of methodologies from other disciplines, interdisciplinary approaches, methodological issues in image measurement, increased utilization of textual and pictorial materials, and content analysis techniques. The wider scope of destination image research, both in terms of geographical distribution of destinations under study and expanding the notion of destination beyond country, city, or region, and putting heavier emphasis on behavioral aspects of image are also discussed. The chapter proceeds with explanation of how the proposed DDII incorporates all these trends. Additionally, the chapter provides an overview of how content analysis of media as a method of scientific inquiry has developed and contrasts quantitative and qualitative epistemologies in content analysis of textual materials. It also gives examples of indices obtained by content analysis in social sciences and makes a brief review of index typologies.

2.1. Destination Image Research

Due to its extreme practical importance for destination management, marketing, and branding, destination image research has been one of the major areas in tourism scholarly inquiry for about three decades. To be successfully promoted in a particular market, “a destination must be favorably differentiated from its competition, or positively positioned, in the minds of the consumers” (Echtner & Ritchie, 2003:37). A desirable differentiation and positioning is often achieved by a destination’s marketing
organization creating and managing the perceptions, or images, that potential travelers hold about the destination. Studying destination images help to understand how to control existing images, repair damage inflicted by negative events occurring at a destination, and, ultimately, project desirable images in economically important markets.

Marketing policies of Destination Management Organizations (DMOs) largely depend on their knowledge of how the destination is perceived by potential visitors, and intelligent decisions are often impossible to make without a solid understanding of what consumers are looking for in a destination and how they will react to these decisions. Moreover, in the global tourist marketplace, consumers have almost unlimited choices with respect to where they want to go; therefore, any destination has a competition that it has to appraise and deal with. Travel decision making is not entirely rational and economically motivated (Boulding, 1956). Psychological motivations, interests, cultural background, emotional state, self-image, and a plethora of other factors are of importance in the consumer travel decision-making process. All these factors are intertwined with each other, and all of them affect the image that people have about a particular destination.

While image studies in social and behavioral sciences started in 1930s (Boulding, 1956), the importance of image in relation to tourism was recognized in the early 1970s. The concept of destination image was introduced into tourism studies by Hunt (1971, 1975), Mayo (1973), and Gunn (1972) and has since become one of the most researched topics in the field. At various points in the past, there have been several attempts to provide an overview of destination image studies in order to help researchers better navigate the field. In the review by Echtner and Ritchie (1991), 15 studies on destination image for the period of 1975-1990 were analyzed. Ten years later, a review by Pike (2002) included 142 empirical and conceptual articles spanning almost three decades of research. Review by Gallarza, Saura, and Garcia (2002) included 65 scholarly works that appeared in the period of 1971-1999. The latest review by Tasci, Gartner, and Cavusgil (2007) contains 45 studies conducted after Echtner and Ritchie’s (1991) influential. These meta-analyses of destination image studies surveyed the body of literature on
destination image along several streams of research. The three streams, namely, (1) conceptualization and dimensions of the destination image construct; (2) measurement of destination image; and (3) formation and change of image, as most relevant to this study, will be discussed in section 2.2.

2.2. Destination Image Construct

2.2.1. Conceptualization

The concept of “image” had been studied for several decades in such disciplines as social and environmental psychology, marketing, and consumer behavior, before it was introduced into tourism studies. However, due to its complexity, subjectivity, and elusive nature, the concept of destination image has been interpreted differently by various researchers (Chon, 1990; Echtner & Ritchie, 1991, Gallarza et al., 2002; Tasci et al., 2007). By some tourism researchers, destination image is considered as simply an overall impression. Hunt (1971) stated, “state tourism image is the impression that a person holds about a state in which they do not reside” (cited in Gartner & Hunt, 1987:15). A similar interpretation of what constitutes destination image is held by Reilly (1990), who cited Dichter’s definition from the social psychology field: “The concept of ‘image’ can be applied to a political candidate, a product, a country. It describes not individual traits or qualities but the total impression an entity makes on the minds of others” (Dichter, 1985:75). This view of destination image as an overall impression is rooted in psychological tradition and consumer behavior theory, where image has long been viewed as

- The sum total of the impressions a consumer receives from many sources (Herzog, 1963);
- A total perception of a product that is formed by processing information from various sources over time (Assael, 1984);
A mental representation of an object or place which is not physically before the observer (Fridgen, 1987).

However, operationalization of the destination image construct, based on understanding image as an overall impression, without breaking it into separate, more evaluative elements, is problematic. Tourism scholars generally agree that destination image holds at least two distinctive components—cognitive and affective (Baloglu & Brinberg, 1997; Baloglu & McCleary, 1999). The cognitive, or perceptual, element refers to knowledge and beliefs about a destination, while the affective element refers to feelings about a destination, which can be favorable, unfavorable, or neutral. In destination image studies researchers usually emphasize the cognitive dimension: only six out of 142 studies surveyed in 2002 assessed affective images (Pike, 2002; Pike & Ryan, 2004). Strong support for the cognitive interpretation of image as a set of relevant attributes is given by Gensch (1978): “Products seldom are measured or evaluated as single lump sum entities; rather, it is the attributes of the alternatives that are measured, compared, and form the basis for choice” (cited in Gartner, 1986:636). This view was further supported by Engel, Blackwell, and Miniard (1986), who stated that image is the consumer’s subjective perceptions, which refer to how an alternative performs on important evaluative criteria. The reason for such a preference possibly lies in social and environmental psychological tradition that regards cognition and affect as interrelated elements, where affect is largely dependent on cognition (references to this view can be found in Baloglu & McCleary, 1999). However, Russell and Snodgrass (1987:246) argued that “behavior may be influenced by the (estimated, perceived, or remembered) affective quality of an environment rather than by its objective properties directly.” Gartner (1993) suggested that the affective component comes into play at the stage when different travel alternatives are evaluated. Furthermore, there are indications that emotions might be better predictors of behavior than perceptual evaluations (Yu & Dean, 2001).

Echtner and Ritchie (1991, 1993) proposed a unique conceptualization of the destination image construct. Based on an extensive review of literature on destination
image research for the period of 1975 – 1990, these two authors concluded that tourism researchers had favored quantitative techniques of image measurement that do not fully capture all aspects of destination image. Echtner & Ritchie (1991:11) proposed that destination image should be envisioned as consisting of two main components: those that are attribute-based and those that are holistic. Each of these components of destination image contains functional, or more tangible, and psychological, or more abstract, characteristics. Moreover, images of destinations can also range from those based on “common” functional and psychological traits to those based on more distinctive or even unique features, events, feelings or auras. Their approach recognizes both cognitive and affective components of destination image and is consistent with MacKay’s and Fesenmaier’s (1997:538) view that “a destination image is a composite of various products (attractions) and attributes woven into a total impression.”

Gartner (1993), Pike and Ryan (2004), and White (2004), among other scholars, also recognized a third – conative or behavioral, – element in the destination image construct, which is related to how travelers act toward a destination based on the cognition and affect they have about it. Conation reflects a likelihood of destination selection, or brand purchase, and can be interpreted as a propensity to visit a destination within a certain time frame (Pike & Ryan, 2004). The conative element of destination image is influenced by both the cognitive and affective components. Identification of cognitive, affective, and conative aspects in destination image, as well as recognition of the importance of its overall, or gestalt, impression is what Gallarza and her colleagues referred to as the complexity of the destination image construct. The continuing discussion on what destination image truly is and how this should be conceptualized generated a whole list of definitions (for summary, see Tasci et al., 2007), which further signaled a lack of consensus among destination image scholars.

2.2.2. Measurement

The measurement of a phenomenon is greatly affected by how it is conceptualized; thus, it is not surprising that various aspects of the destination image
construct, such as perceptual, affective, and behavioral elements, are measured using different instruments. Image research has greatly benefited from the advancements of data handling methodology and introduction of such techniques as factor analysis, discriminant analysis, multidimensional scaling, correspondence analysis, perceptual maps, conjoint analysis, etc. to image assessment (Mazanec, 1994). Gallarza et al. (2002) concluded that multivariate information reduction techniques such as factor analysis methods predominate, since they allow for the identification of latent dimensions of the destination image construct. According to Pike’s review (2002), the majority of studies favored measuring the cognitive component by using the Likert scale, and the subsequent factor analysis for data reduction was a common technique to employ. There are far fewer studies that measure the affective component using semantic differential scales, as did Baloglu and Brinberg (1997), and even fewer that measure both components in the same study, as did Pike and Ryan (2004). One of the reasons for such disproportion may be that cognition, affect, and conation require separate measurement scales (Baloglu & McCleary, 1999), and surveys incorporating all three components can be burdensome for respondents.

It was also noted by previous reviews that destination image researchers favored structured methodologies over qualitative ones (Gallarza, 2002; Pike, 2002). Qualitative studies are typically more time consuming and costly; however, the prevalence of quantitative studies over qualitative ones resulted in the cognitive component of destination image receiving more attention. Echtner and Ritchie (1993) were the early proponents of using qualitative methodologies as part of assessing holistic components of destination image. The framework proposed by Echtner and Ritchie had three main advantages, which made it a popular approach for destination image measurement (Murphy, 1999; O’Leary & Deegan, 2003; Rezende-Parker et al., 2003, among other studies). First, the approach uses structured and unstructured methodologies for operationalization of destination image components. Second, both the attribute-scale and set of open-ended questions suggested by Echtner and Ritchie are parsimonious, with 35 and 3 items, respectively. Finally, the results can be easily visualized by placing image elements along three pairs of axes: (1) functional-psychological/attribute-holistic, (2)
Still, few studies employ qualitative analysis as the main technique; qualitative approaches (focus groups, expert panels) are mostly used for instrument development, or as a part of Echtner’s and Ritchie’s framework.

2.2.3. Image formation and change

Destination image is a varying, evolving construct. It depends on the traveler’s personality, previous experience with a destination, as well as amount and quality of information received about a particular destination. People differently evaluate destination attributes, and their affective feelings towards a destination vary. Various studies (Gunn, 1972; Baloglu & McCleary, 1999) suggest that destination image is developed under the influence of different information sources, or agents, which can be generally divided into organic and induced categories, a division first proposed by Gunn (1972). The destination image construct can be considered from the aspect of how it is formed, thus, as having organic and induced components. The organic component is the knowledge acquired in the natural course of life, while the induced component is influenced by the marketing efforts of the destination and suppliers. A detailed typology of destination image formation agents from the perspective of their influence and credibility was given by Gartner (1993). As Gartner argues, more credible agents are those that do not have a vested interest in promoting a destination, for example, mass-media broadcast news, television programs, documentaries, travel guides, books, etc., as well as word of mouth, which are collectively referred to as organic information sources.

Changes in destination images have been well documented. Perry, Izraeli, and Perry (1976) investigated the image change of Canada as a result of a promotional campaign conducted over a 5-month period and concluded that the image of a country could be modified by advertising efforts. Gartner (1986) found that the images of states in the U.S. as perceived by tourists showed minor changes between November 10, 1982 and February 25, 1983. He suggested that advertising or promotions can be effective in modifying image even over a short-term period. Another study conducted by Gartner and
Shen (1992) found that US citizens displayed more negative perceptions of the tourist attributes of China after the Tiananmen Square conflict compared to before that event occurred. Also, political and sports events with international appeal offer powerful opportunities to promote the host country's culture and traditions and affect destination image (Allen et al., 2002; Bramwell, 1997; Gamage & Higgs, 1996; Hall, 1987; Kim & Morrison, 2005; Mihalik & Simonetta, 1999). In summary, these and other studies have concluded that image is a dynamic construct, and images measured over one or two points in time can vary through the influence of a number of factors: actual travel experiences with a tourism destination, changes in the political or social environments, nationality (Kozak, 2002; MacKay & Fesenmaier, 2000), socio-demographic variables (Jenkins, 1999; Stabler, 1988), the level of awareness about or familiarity with a tourism destination (Andsager & Drzewieska, 2002; Baloglu, 2001), and the role of promotional media (Gartner & Shen, 1992; Gunn, 1972; Jenkins, 1999).

The dynamic nature of the destination image concept can be captured along two dimensions – time and space. Time-dependent variable familiarity, or previous experience with a destination and knowledge about it, is often used to register changes in destination images. Familiarity influences destination perceptions and attractiveness and represents a key marketing variable in segmenting and targeting potential visitors (Baloglu, 2001). One stream of research on familiarity and destination image compares pre- and post-visitation destination images as well as images of first-timers and repeated visitors. Phelps (1986) recognized secondary destination images, as formed by travelers’ exposure to different information sources, and primary images, which are created after actual visitation. Research by Phelps, as well as the studies done by Pearce (1982), Chon (1991), and Dann (1996), suggested that visitation affects images and changes some perceptions about a destination. While there is no large enough body of research on how familiarity influences destination image (Tasci et al, 2007), some research indicates that people more knowledgeable about a destination tend to have more favorable destination image (Baloglu, 2001; Crompton, 1979; Stepchenkova & Morrison, 2008). However, images of first-timers and repeated visitors tend to be similar (Fakeye & Crompton, 1991) which suggests that most changes in destination image occur during the first visitation.
The “space” aspect of the dynamic nature of destination image refers to perceptions of a destination with respect to other destinations. This aspect is connected to destination positioning (Ahmed, 1991; Beerli, Meneses, & Gill, 2007; Calantone et al., 1989) which is an integral part of destination management and marketing. The influence of geographical location on destination image has been surmised as “closer markets have more detailed images than geographically distant markets.” The greater the distance, the more distorted the reality becomes (Gartner, 1993). The dependency of destination image on distances is particularly pertinent for practitioners, since it regulates the level of detail required in projecting desirable images, as well as managing distorted and/or negative images. Based on the knowledge of current media coverage, the DMOs can amplify the positive aspects of image, as well as counter, if needed, negative or inaccurate information in their induced materials (Kale & Weir, 1986).

2.3. Current Trends in Destination Image Research

Destination development, marketing, branding, and overall management are highly dependent on knowledge about behavior of potential visitors with respect to destination choice which, in turn, is closely connected with tourists’ perceived images of the destination. Thus, developments in understanding the destination image concept and its assessment have high practical relevance and are of value for DMOs, industry professionals, and destination stakeholders (Ritchie & Crouch, 2003). To seek a better understanding how proposal for a Dynamic Destination Image Index fits into the existing state of destination image research and its trends, a survey of destination image studies for the period of January 2000 – October, 2007 was conducted by the author (Stepchenkova & Mills, 2008, under review). Integrated computer databases Hospitality and Tourism Complete, Web of Science, Business Source Premier, and Social Sciences Abstracts/Full Texts were searched to identify relevant research in academic peer-reviewed journals from both tourism and non-tourism fields. In the final sample there were 154 conceptual (29) and empirical (125) papers. The majority of the articles were published in the hospitality and tourism journals (137 papers), and 17 papers appeared in marketing, sociology, and psychology journals. Tourism Management journal has the
largest number of articles for the period – 28, followed by Annals of Tourism Research and Journal of Travel Research with 17 articles in each publication. The survey applied meta-analysis methodology to the selected studies in order to identify emerging trends in destination image research. In the following section several of the identified trends in destination image research are discussed.

2.3.1. Interdisciplinary nature of destination image research

Results indicated that the studies have gone well beyond the traditional areas of environmental psychology and consumer behavior in order to arrive at a conceptual definition of destination image, the trend reflecting complexity and multi-dimensionality of the construct. Among these are sociology (Carden, 2006; Framke, 2002; Stamou & Paraskevolpoulos, 2004; Stokowski, 2002; Williams, 2002), cultural studies (Andsager & Drzewiecka, 2002; Espelt & Benito, 2005; Kozak et al., 2003; Markwick, 2001; Oliver, 2003; Poria, Biran, & Reichel, 2007; Shukla, Brown, & Harper, 2006), media and communications (Bandyopadhyay & Morais, 2005; Hudson & Ritchie, 2006; Kim & Richardson, 2003; Mercille, 2005; Molina & Esteban, 2006), business and marketing (Ekinci & Hosany, 2006; Henderson, 2007; Hosany, Ekinci, & Uysal, 2006; Konecnic & Gartner, 2007; Murphy, Moscardo, & Benckendorff, 2007b; Tasci & Kozak, 2006), and economics (Bahar & Kozak, 2007; Leisen, 2001). Research extensions into related disciplines allow for a broader perspective in a search for conceptual approaches to identify the destination image construct and create methods for its measurement.

Destination image is now being studied in a close connection to destination marketing and branding, in particular (Cai, 2002; Hem & Iverson, 2004; Konecnic & Gartner, 2007; Lee, Cai, & O’Leary, 2006; Murphy, Benckendorff, & Moscardo, 2007a; Murphy et al., 2007b; Ooi, 2004). Although place branding is a relatively new concept, there is a general agreement among academics and practitioners that places can be branded in much the same way as consumer goods and services (Kotler & Gertner, 2002; Morgan & Pritchard, 2001; Olins, 2002). Destination brands, in line with product brands, are now considered not as mere identifiers, but rather as independent bodies that want to
occupy a place in the mind of the consumer. The importance of branding has been clarified by many as a way to distinguish one place from another, to convey a positive and motivating message, and to add value to the destination (Aaker, 1991, 1996; Murphy, 1987, 1990). Despite the similarity between destination branding and product branding, the former is more complicated because of its multi-functional nature and relevance for diverse groups of stakeholders: tourists, investors, and residents. Destination branding is viewed as having two dimensions: functional, which characterizes utilitarian aspects of the destination, and representational, which consists of the attributes linked to the individual’s self-expression (Kaplanidou & Vogt, 2003). While the former has much in common with attribute-based component of destination image linked to cognitive perceptions, the latter is theoretically connected to studies of identity and self-perception.

In research conducted since the year 2000, the concept of self-congruity between self- and destination images has reached a prominent place (Kastenholz, 2004; Murphy et al., 2007b). Self-congruity is a match between the destination’s visitor image and tourists’ self-concept, i.e., his or her actual, ideal, and social self-image. In the sample of articles used in this meta-analysis, there were 20 studies which addressed in some way the notion of self-congruity with regard to travel. In 2000, Sirgy and Su (2000) proposed an integrative model of destination image, self-congruity, and travel behavior, followed by Carden (2006), Xing and Chalip (2006), Beerli et al. (2007), and Murphy et al. (2007a). Empirical research finds that the greater the agreement between a destination image and one’s self-concept, the greater the tendency for the tourists to visit that place. It can be seen that studying the congruity of images brings destination image research closer to the field of branding research which postulates that brands should be appealing to consumers on a personal level, and that the personalities of potential customers and product brands should match. A number of studies investigated image in connection to personal emotions (Pike & Ryan, 2004; Prideaux et al., 2004; Trauer & Ryan, 2005; White & Scandale, 2005; Yuksel & Akgul, 2007), which is probably due to realization that destination image and branding should be congruent to a personality of potential visitors.
There has been a stream of research that explored destination image within a cultural context. Andsager and Drzewiecka (2002) estimated destination images in terms of familiarity and desirability, and whether stereotypes influence interpretation. Familiarity was considered with reference to the concept of “Other” that would represent the less known cultures. This theme was further developed by Chaudhary (2000) and Bandyopadhyay and Morais (2005) with respect to third-world destinations. These authors raised an important problem, since more developing countries have been entering the tourist market and competing for visitors. The very practical question of whether these destinations should maintain their “otherness” and attract potential tourists by exoticism, serenity, and pristine nature, or should employ a more realistic representations of current tourist conditions is an area of significant debate (Garcia et al., 2004; Prebensen, 2007; Prideaux et al., 2004; Pritchard & Morgan, 2001).

Thus, destination image is being examined in a wider framework than before, and this trend is likely to continue. While Tasci et al. (2007) warn researchers from using different definitions of destination image, a practice that can lead image studies to become a-theoretical and non-scientific, the author views expansion in conceptual approaches as rather a good sign. Realization that destination image is not a thing in itself but closely connected to such constructs as branding and positioning, self-image and self-congruency, satisfaction and loyalty, etc. resulted in a higher visibility of the studies attempting to place destination image in a broader framework of research.

2.3.2. Introduction of new methodologies for destination image measurement

Research methodologies are dictated by conceptualization of the destination image construct. Having advanced into social sciences, management, and economics, destination image studies apply methodologies accepted in these areas of scientific inquiry. It is especially noticeable with the growing number of applications of the structural equation modeling (SEM) and path analysis approaches to estimate conceptual models which include destination image as a latent factor. SEM methodology tests cause-effect relationships between image and other constructs, and studies applying SEM were
mentioned neither by Pike (2002) nor by Gallarza et al. (2002). Bigne, Sanchez, & Sanchez (2001) proposed a model which incorporates destination image, perceived quality, satisfaction, willingness to return and intention to recommend. Chen and Tsai (2007) included destination image and perceived value into the “quality-satisfaction-behavioral intentions” paradigm and tested it with the SEM technique. Lee et al. (2005) tested causal relationships between affective component of destination image, service quality, tourist satisfaction, willingness to recommend, and propensity to visit. Konecnic and Gartner (2007) proposed a model of brand equity, which included all three main components of destination image – cognitive, affective, and conative. Lin, Wu, and Chang (2006) measured influence of image on destination preferences. Castro, Armario, and Ruiz (2007) proposed and tested several alternative SEM models involving destination image, service quality, propensity to visit, intention to recommend, and tourist’s satisfaction. Previous research recognized multi-dimensionality and complexity of image but applied different methods for measuring different components of destination image, which was not conducive to assessment of the holistic nature of the concept. Integrated conceptual models specifying various aspects of destination image might be a better way of capturing the gestalt nature of the destination image construct.

This trend of sophisticated statistical methodologies is strengthened by application of techniques from business, marketing, and economics. Hong et al. (2006) used a nested multinomial logit model (NMLM) to compare positioning of eight park destinations in South Korea. Voges (2006) employed a hybrid computational intelligence technique developed for estimating mechanics of natural evolution. The author proposed that this algorithm is better suited for clustering objects like perceivers of images than traditionally used in segmentation studies k-clustering techniques. Mazanec and Strasser (2007) applied perception-based analysis technique (PBA) used for studies of choice alternatives in economics to differentiate between the generic perceptions of a class of choice alternatives, e.g., destinations, and the profiles of the choice alternatives actually selected. Applications of mentioned innovative methods are still exploratory and sparse. Not enough studies have been conducted using these techniques, which makes it impossible to draw any conclusions with respect to these methods’ potential. There has
not yet been a major break-through in methodologies that would allow the measurement of influence that destination image exercises on such economic variables as arrivals and tourist expenditures at a destination. However, the presence of methodological expansion in terms of approaches is a promising sign for destination image research, since a variety of approaches in the measurement of destination image, taken together, helps solidify knowledge of the construct. The broad range of approaches can be considered as some kind of triangulation of image measurement; the variety of techniques will inevitably lead to the selection of those which give comparable results, thus advancing destination image methodology further.

2.3.3. Addressing methodology issues in destination image research

Out of 154 surveyed studies, 29 dealt with issues of conceptualization of the destination image construct by proposing models which would integrate destination image with theoretical concepts from other disciplines. These models were estimated using sophisticated statistical techniques such as path analysis or SEM. A concern about appropriateness of widely used methodologies for destination image measurement has also been raised. A study by Deslandes et al. (2006) questions the application of traditional scales for the measurement of destination attributes. The authors claim that scales proposed by seminal studies by Crompton (1979), Hahtti and Yavas (1983), and Echtner and Ritchie (1993), as well as their numerous modifications, produce inconsistent results when applied to different destinations. Deslandes and colleagues strongly advocate for a standardized scale instrument for measuring components of destination image. They argue that scholars are in need of an instrument which would provide a valid, reliable measure which would permit comparisons across time, studies, and destinations. For industry practitioners, standardized measurement approaches are preferable instruments, since they save time and effort.

Another interesting aspect of modern concern about methodologies used for image measurement is the questionable validity of results due to low response rates and inadequate quality of responses provided by survey participants. MacKay and Couldwell
(2004) argue in favor of survey design and techniques which are more interesting and enjoyable for subjects. In particular, these authors advocate the use of personal photography and similar data as a source for image studies, claiming that technique, which involved personally-related materials, resulted in 95% of response rate and provided a higher personal involvement of survey subjects. Due to its relative newness, imagery analysis is less developed in comparison to analysis of structured questions and texts, and content analysis techniques used for studying text are not automatically transferable to studying imagery. Thus, research on projected imagery is currently of a more interpretive nature, drawing from cultural studies, social cognition, and social psychology and borrowing on such concepts as the Self and the Other.

2.3.4. Increase in studies using textual and pictorial materials

Traditionally, a strong preference has been given to structured methods of destination image measurement, when answers to close-ended survey questions are analyzed to understand how potential visitors perceive a particular destination (Echtner & Ritchie, 1991; Gallarza et al., 2002; Pike, 2002). Jenkins (1999) noted that these structured methodologies focus on destination attributes and generally neglect the holistic aspect of destination image. The measurement of the holistic component through qualitative analysis of textual or pictorial data requires extended resources, both in terms of time and human involvement. Large bodies of data and the demanding nature of analysis associated with such studies led researchers to compromise continuously on sample sizes. This practice was cited as one of the major shortcomings of qualitative image research (Tasci et al., 2007).

The meta-analysis has registered an increase in a number of studies that analyzed textual and pictorial material in order to assess images projected by DMOs via such distribution channels as brochures, destination websites, postcards, and other media (Govers & Go, 2005; Jacobsen & Dann, 2003; Markwick, 2001; Molina & Esteban, 2006; Prentice, 2004). Destination image research has invested heavily in the measurement of perceived images, and currently approaches are being developed for
extracting the projected ones. Research on projected images can potentially lead to studies of congruency between perceived and projected destination images (Beerli et al., 2007; Singh & Formica, 2006; Sirgy & Su, 2000). The measurement of projected images, whether induced or organic, often involves content analysis of textual and pictorial materials. Approaches for analyzing textual messages traditionally borrowed from content analysis methodology developed in social sciences in early 1930s (Krippendorff, 2004). An accepted method is to employ sorting and categorization techniques to identify the frequencies of certain concepts, words, or people in promotional textual materials and treat the most frequent ones as variables, or dimensions, of the destination image construct (Andsager & Drzewiecka, 2002; Dann, 1988, 1996; Echtner, 2003; Echtner & Ritchie, 1993; MacKay & Fesenmaier, 1997; Ryan & Cave, 2005; Tapachai & Waryszak, 2000).

Research that investigates how destination image is captured in media materials and manifested through media content has been also growing in body and sophistication (Bandyopadhyay & Morais, 2005; Frost, 2006; Mercille, 2005; Sadler & Haskins, 2005). Mercille (2005) used a theoretical model provided by Hall (1980) and compared media productions consulted by tourists to Tibet with tourists’ perceptions of the region. Medium to strong congruence was found between representations and destination images. Frost (2006) examined the influence of a historic film on tourist willingness to visit northwestern Victoria, Australia. Bandyopadhyay and Morais (2005) studied media representations of India in UK and compared them to images that the Indian tourism authorities were trying to project. Due to virtually limitless media materials available for image studies, media research is a very prospective area of inquiry, since it is unobtrusive, does not involve human subjects, rich in content, and, given the adequate methodologies, can produce replicable results. Besides content analysis of texts, qualitative studies witnessed a growth in assessing visual images – postcards (Markwick, 2001), booklet imagery (Jacobsen & Dann, 2003; Molina & Esteban, 2006; Prentice, 2004), published ads (Andreu, Bigne, & Cooper, 2000), and personal photography (Dewar, Li, & Davis, 2007; MacKay & Couldwell, 2004).
2.3.5. Wider scope of destination image studies

In the recent years, the scope of destination image studies has become wider at least in two areas. As the tourism and hospitality industry has been on the rise for the last decade, more places in various parts of the world are emerging as travel destinations. This global process is reflected by a growing number of papers that use less known and established destinations as objects of destination image research. In the 1970s, when destination image research was in its infancy, most studies used North American and European destinations as their objects (Pike, 2002), and this dominance continued into 1980s. Then Asian (Kale & Weir, 1986), Australasian (Woodside & Lyonski, 1989), and Central American (Botterill & Crompton, 1987) destinations entered the research field (more references can be found in Pike (2002)). In the late 1980s, Australia (Frost, 2006; Murphy, 1999; Pike & Ryan, 2004; Ryan & Cave, 2005) and Spain (Beerli & Martin, 2004; Bigne et al., 2001; Castro et al, 2007) established a strong presence in destination image studies. These countries were re-evaluating their image in a framework of large-scale international branding campaigns, and other countries went along: Dubai (Bagaeen, 2007), Turkey (Bahar & Kozak, 2007; Baloglu, 2001), Russia (Stepchenkova & Morrison, 2006), Malaysia (Ahmed et al., 2006), Taiwan (Davidson & Yingmia, 2005), India (Bandyopadhyay & Morais, 2005), Korea (Chen, 2001), and Macao (Choi, Lehto, & Morrison, 2007), as well as African destinations of Nigeria (Awaritefe, 2004), Rwanda (Grosspietsch, 2006) and Kenya (Abubakar & Shanka, 2005).

Destination image has been studied with respect to countries, cities and states for quite some time; however, in recent years the concept was applied to “non-traditional” destinations as well. By “non-traditional” destinations such entities as theme parks (McNicol, 2004), heritage sites (Poria, Reichel, & Biran, 2006; Poria et al., 2007), resorts (Yuksel & Akgul, 2007), and festivals (Li & Vogelson, 2006; Prentice & Andersen, 2003) are understood. A top-down penetration of the destination image concept is a sign that practitioners recognized high relevance of the concept to destination positioning, marketing and branding. For example, destination image research applied to theme parks or cruise lines helps formulate marketing strategies which can repair an image damaged
due to negative events, such as accidents with human fatalities due to faulty equipment (theme parks) or spread of disease due to lax hygiene standards (cruises).

Destination image research as a branch of scholarly inquiry has also become more global. The concept is now studied with relation to country and product image as formulated in economics (Mitteistaedt et al., 2004). Kotler and Gertner (2002:251) pointed out that “a country’s image results from its geography, history, proclamations, art and music, famous citizens and other features.” Destination and country images are interrelated, overlapping constructs (Mossberg & Kleppe, 2002), and a destination’s image is undoubtedly influenced by the country’s image; however, it is not clear to what degree. Applying the destination image concept to a more global entity like country brings forward streams of research associated with destination competitiveness (Therkelsen, 2003; Uysal, Chen, & Williams, 2000), the notion which, again, can be applied not only to countries, cities, or regions, but also to smaller entities as national parks, heritage sites, or sea resorts.

2.3.6. Behavioral component of destination image

Conceptualization of the destination image construct has been a highly debatable area since 1970s, and scholars now tend to agree that destination image has a conative component (Ekinci & Hosany, 2006; Murphy et al, 2007a; Sirgy & Su, 2000; Tapachai & Waryszak, 2000) and has to be studied in relation to travel behavior. Since the ultimate purpose of DMOs is to predict and/or influence behavior with respect to visitation, the conative component of image, which was overshadowed for quite some time by its cognitive and affective counterparts, is getting more attention in destination image research (Chen & Tsai, 2007; Kozak et al., 2003; Perdue, 2001; Sirgy & Su, 2000). The meta-analysis conducted registered an increasing number of studies that address the concept of destination image from a more practical standpoint, dealing with the issues of propensity to visit (Bonn, Joseph, & Dai, 2005; Boo & Busser, 2005; Correia & Crouch, 2003; Hsu, Wolfe, & Kang, 2004; Lin et al., 2007), intention to recommend (Lee, Lee, & Lee, 2005), and loyalty (Cai, Wu, & Bai, 2004). There is still no consensus as to what
methodologies are the most adequate for the measurement of the conative component. Studies are building the understanding of the component by measuring propensity to travel expressed as a likelihood of visiting a destination, or ranking destinations from a consideration set in order of preference, or applying a path analysis or SEM techniques in order to determine the most influential antecedents of expressed propensity to travel.

2.3.7. Novelty of DDII approach

Meta-analysis of destination image studies conducted in the 2000-2007 period revealed that the idea of constructing a Dynamic Destination Image Index has not yet been explored in the literature on destination image. However, as can be seen from discussion in the previous sections, current trends in destination image research all come into focus with a proposal for DDII. DDII, as a concept, has a multidisciplinary foundation since it draws on social, behavioral, marketing, communication, and media research. In essence, it is a quantification of qualitative information produced by the media sources, which is relevant to formation of destination image. DDII is also a new methodology of destination image measurement, which would reflect changes in destination image, shared by larger groups of people, through time. Thus, in contrast with previous approaches to destination image measurement, DDII is dynamic rather than static. Static, i.e., survey-based image assessments show a perception of image at a certain time point; therefore, it requires multiple surveys to assess the image dynamics. Although a survey-based approach allows a comparison among destinations, this comparison is restricted to a single time point. Foundation for DDII construction, the content analysis methodology, operates with textual materials produced by relevant sources in the multiple time points, thus, allowing tracking changes in images through a whole period of interest. DDII can reflect changes in images not only in “traditional” destinations such as countries, cities, or islands, but be also helpful to “non-traditional” destinations such as festivals, theme parks, or heritage sites.
2.4. Historical Precursors of Content Analysis of Media

Empirical inquiries into the meaning of communications have a long history and its roots can be traced back to the late 1600s, when printed non-religious materials started to threaten the Church’s authority. Arguably, the first content analysis study was conducted in the 18th century in Sweden. It compared a popular set of 90 religious hymns of unknown authorship (The Songs of Zion) with an orthodox set from established songbooks by counting occurrences of selected religious symbols. The study found that there were no difference between the two sets of hymns, and the claim that The Songs of Zion were “contagious” was dismissed (Krippendorff, 2004). However, some scholars noted that the counted symbols in the non-orthodox songs were used in different contexts and thus acquired meanings that were different from those taught by the official church. It sparked a debate between the scholars on whether the meaning of religious symbols should be understood literally or metaphorically, and these early discussions are considered as a precursor of a much later debate on the manifest and latent meaning of content.

In the beginning of the 20th century the number of newspaper titles and their total circulation increased. This trend of increasing newspaper circulation was directly connected to the interest in public opinion, which was manifested in emergence of studies that used a number of approaches collectively named “quantitative newspaper analysis.” One of the very first of these studies was published in 1893 (“Do newspapers now give the news?” by Speed) and was concerned with the question of whether newspapers were being devoted to coverage of religious, scientific, and literary matters or had shifted their attention in favor of gossip, sports, and scandals (Krippendorff, 2004). A study by Mathews (1910) made an effort to prove that overwhelmingly more space in one of the New York newspapers was attributed to insignificant and trifling matters as opposed to “real” news. Studies by Street (1909), Wilcox (1910), Fenton (1910), and White (1924) further developed methods of quantitative newspaper analysis; however, these and other early studies employed mostly subject-matter categories such as domestic affairs, politics, crime, and sports to classify news content. Nevertheless, this research provided objective and scientific grounds for journalistic arguments. According to Berelson (1952), the main
concentration of early content analysis studies was in the areas of journalism and literature. The latter trend focused on such stylistic features of English poetry and prose as sentence length, frequencies of various parts of speech, etc. (Sherman, 1893); however, this trend was not widely recognized at the time. In the late 1950s and early 1960s, Miles, Rickert, Spurgeon and others applied content analysis to problems of establishing authorships in literature with far greater success: for example, Miles and Selvin (1966) were able to define the authorship of unsigned works of seventeen-century English poetry. Also, in 1912, Tenney came forward with an idea to establish a continuous survey of press content in order to devise a system which would register the “social weather” comparable in accuracy to the statistics of the U.S. Weather Bureau (Tenney, 1912: 896); however, his proposal exceeded the scope of what was feasible at that time.

It is very difficult to pinpoint a year when quantitative newspaper analysis became content analysis in the modern sense. According to Krippendorff (2004), between 1930s and 1940s content analysis experienced the intellectual growth due to a number of external factors such as emergence of (1) numerous social and political problems in the period of Great Depression; (2) new powerful media such as radio and, later, television that challenged the cultural dominance of newspapers; and (3) social and behavioral sciences and rising public acceptance of methods of scientific inquiry associated with these disciplines. In addition, in 1930s sociologists started to increasingly use such methods of studying public opinion as survey research and polling. From writings about public opinion researchers proceeded into analysis of communications in various forms. Berelson (1952), Holsti (1969), Krippendorff (2004), and Neuendorf (2002) list studies which give the reader an idea of a scope of content analysis inquiry in those times. The topics ranged from how African Americans were presented in the Philadelphia press (Simpson, 1934) to how textbooks of U.S. and U.S. former enemies presented historical events (Walworth, 1938) to how nationalism was expressed in children’s books published in U.S., UK, and other European countries (Martin, 1936) to how American and German values compared in Boy Scouts and Hitler Youth literature (Lewin, 1947). Different media sources were also compared: for example, Lazarsfeld, Berelson, and Gaudet
(1948) analyzed content related to the 1940 presidential campaign in three media sources—magazines, newspapers, and radio—in order to determine differences in coverage.

During the 1930s and 1940s content analysis was propelled by the work of Lasswell and his associates through studies of mass communication and, especially, one of its aspects—propaganda. During World War II, several U.S. government departments organized groups of researchers charged with the responsibilities to content analyze enemy radio broadcasts, leaders’ speeches, propaganda films, etc. Harold Lasswell and his colleagues worked with the Experimental Division for the Study of Wartime Communications at the U.S. Library of Congress. The group concentrated on analysis of newspapers and wire services from abroad, and in the working process contributed to methodological developments in content analysis, particularly, with respect to issues of sampling, reliability and validity of content categories, and measurement problems (Lasswell, Leites, & Associates, 1965). Another well-known group of scientists working in the same area was headed by Ernst Kris and Hans Speier. The latter coordinated a research project on totalitarian communication at the New School for Social Research in New York (Kris & Speier, 1944). Kris and Speier organized a research group at the Foreign Broadcast Intelligence Service of the U.S. Federal Communications Commission (FCC). The main purpose of the FCC team was to analyze domestic enemy broadcasts in order to understand and predict events, both military and politic, within Nazi Germany and the other Axis countries. The group was able, for example, to make conclusions about German troop dislocations by studying songs broadcasted on the radio. However, the pressure of day-to-day reporting prevented the FCC group from stating formally their methods; the work, to some extent, was conducted by George (1959a) in his book “Propaganda analysis.”

Research by Lasswell, Lerner, and de Sola Pool (1952) undertaken at Stanford University in the early 1950s was the most comprehensive and integrated study of mass communication of those times. This group of researchers adopted a view at the reality as a symbolic environment of words, images, and their meanings, which surrounds human beings from their early existence. Lasswell and his associated believed that these
symbols, though frozen at any given moment, exhibit changes if studied over longer periods of time. These changes are indicative of the changes in reality: predominant ideologies in the society, its preoccupation with certain issues, and other political and social matters. Lasswell and his colleagues were interested in creating “models of symbolic behavior, which would enable us to formulate and validate propositions about the mechanisms underlying the flow of symbols” (p.78). Their point of view is summarized in this quotation:

> When it is desired to survey politically significant communication for any historical period on a global scale, the most practicable method is that of counting the occurrence of key symbols and clichés. Only in this way can the overwhelming mass of material be reliably and briefly summarized. By charting the distributions in space and time, it is possible to show the principal contours of ... political history. (Lasswell et al., 1952:16)

Newspapers are considered as especially suitable source of data, since they appear frequently, on a regular basis, and in uniform formats. In addition, they usually have explicit point of view, large circulation, and appeal to various social groups. Since the press is mainly information, not an entertainment medium, Lasswell believed that front-page material and editorials were particularly suitable for politically-oriented content analysis in order to tap the change in symbolic flows. “Politically significant symbols are usually concentrated in the front page or editorial page.” (Lasswell, 1942:14).

After World War II, content analysis was increasingly used in disciplines other than mass communication research. Psychologists employed it to study motivational, mental, or personality characteristics through the analysis of interview records (Allport, 1942; White, 1947), analyze behavior of small groups (Bales, 1950) and generalize measures of meaning over a wide range of situations and cultural contexts (Osgood, 1974a, 1974b). Anthropologists used content analysis in their research of folktales, legends, or songs. Ethnography, which emerged within anthropological branch of scientific inquiry, uses methods similar to those accepted in content analysis when field
notes collected by researchers need to be analyzed. Historians embraced content analysis as a suitable approach in projects involving analysis of numerous documents. Literary scholars developed new content analysis techniques for establishing authorship of unsigned works (Miles & Selvin, 1966; Sainte-Marie, Robillard, & Bratley, 1973). Milestones in content analysis research are described in detail in Neuendorf’s (2002) comprehensive text “The content analysis guidebook” and in the second edition of Krippendorff’s (2004) seminal text “Content analysis: An introduction to its methodology.” More historical information is provided by two valuable sources - Berelson’s (1952) “Content analysis in communication research” and Holsti’s (1969) “Content analysis for the social studies and humanities.”

Today, content analysis is a well-established research methodology, which is used in social sciences to analyze communications (Holsti, 1969). Over the last two decades, content analysis research has remarkably benefited from the exponentially increasing volume of electronic data, including articles in general media databases, communications in virtual communities, and textual and pictorial materials from websites (Miles & Weizman, 1996; Rainer & Hall, 2003; Romano et al., 2003; Wickham & Woods, 2005). The escalating employment of e-surveys by social scientists (Sills & Song, 2002) also contributed to the availability of electronic data. Immense volumes of easily accessible textual material, speed and simplicity of the data collection process, lack of complications associated with human subjects, and advances in development of various computer programs to support textual data analysis are the factors that stimulate usage of content analysis research in social sciences (Miles & Weizman, 1996; Macnamara, 2003; Romano et al., 2003).

2.5. Quantitative and Qualitative Epistemologies

Content analysis is a non-obtrusive research methodology which is used to study a wide range of textual data, e.g., various types of media messages, interview transcripts, discussion boards in virtual communities, or travel diaries. It is “a technique which aims at describing, with optimum objectivity, precision, and generality, what is said on a given
subject in a given place at a given time” (Lasswell et al., 1952:34). Berelson (1952:18) summarized content analysis as a “research technique for the objective, systematic, and quantitative description of the manifest content of communication.” More recently, Weber (1990:9) defined content analysis as “a research method that uses a set of procedures to make valid inferences from text.” Content analysis examines textual data for patterns and structures, singles out its key features to which researchers want to pay attention, develops categories, and aggregates them into perceptible constructs in order to seize text meaning (Shoemaker & Reese, 1996; Gray & Densten, 1998). Content analysis is capable of capturing a richer sense of concepts within the data due to its qualitative basis, and, at the same time, can be subjected to quantitative data analysis techniques (Insch & Moore, 1997). There are two general classes of epistemologies employed for content analysis in social sciences: qualitative and quantitative. The former term refers to non-statistical and exploratory methods, which involve inductive reasoning (Berg, 1995), while the latter term refers to methods that are capable of providing statistical inferences from text populations.

A central idea of quantitative content analysis is that “many words of text can be classified into much fewer content categories” (Weber 1990:7). The methodology of extracting content categories from the text, counting their occurrences in the sampled text blocks, and analyzing associations between categories using the frequency matrix was developed by the mid 20th century, primarily by a group of Harvard researchers, and is often referred to as contingency analysis (Pool, 1959; Roberts, 2000). George (1959b), one of the pioneers of content analysis, was critical of the use of contingency analysis, saying that this method was not sensitive enough to the intended meaning of the author. Indeed, contingency analysis assumes that “what an author says is what he means” (Pool 1959:4), and cannot take into account such text features as, for example, figures of speech or irony. George’s opinion is supported by Shoemaker and Reese (1996:32) who argue that the process of reducing large volumes of text to quantitative data “does not provide a complete picture of meaning and contextual codes, since texts may contain many other forms of emphasis besides sheer repetition.” Newbold, Boyd-Barrett, & Van Den Bulck (2002:80) agree that “there is no simple relationship between media texts and
their impact, and it would be too simplistic to base decisions in this regard on mere figures obtained from a statistical content analysis.” Moreover, quantitative content analysis does not always account for source credibility, political or social context of messages being examined, and audience characteristics such as age, sex, or education (Macnamara, 2003). However, despite its limitations, quantitative content analysis has long been employed in social studies due to its clear methodological reasoning based on the assumption that the most frequent theme in the text is the most important, as well as the ability to incorporate such scientific methods as “a priori design, reliability, validity, generalizability, replicability, and hypothesis testing” (Neuendorf, 2002:10).

From a philosophical perspective, quantitative tradition of content analysis is based on the positivist premise that “there is something like an objective reality (social facts) ‘out there’ that can be observed, measured, analyzed and thus understood;” therefore, decontextualization of the textual material and selection of the outsider variables for analysis of social phenomena are the main issues in quantitative paradigm (Newbold et al., 2002:59). In contrast, the qualitative epistemologies share the view that ‘reality’ is a social and cultural creation, which can only be interpreted, approximated but not fully apprehended; thus in qualitative tradition the focus is on complexity, context, and detail (Denzin & Lincoln, 1994). Qualitative tradition heavily relies on researcher’s reading of the content and includes such approaches as rhetorical, narrative, semiotic, and discourse analyses to textual data that cannot easily be summarized (Neuendorf, 2002; Newbold et al., 2002). Because it must necessarily consider multiple interpretational perspectives, the qualitative approach is time consuming and rarely involves large samples of data. It has been also pointed out that in qualitative data analysis causality cannot be established without high levels of subjectivity (Mehmetoglu & Dann, 2003), and qualitative studies have also been criticized as “impossible to do with scientific reliability” (Macnamara, 2003:6).

However, the complete separation of the two traditions is not always possible, given the diversity of approaches to content analysis and wide range of its applications. For example, the grounded theory methodology of content analysis developed by Glaser
and Strauss (1967) can be viewed as a “compromise” of inductive and deductive analyses specific to qualitative and quantitative research traditions, respectively (Newbold et al., 2002). Modern media scholars such as Curran (2002), Gauntlett (2002), Hansen et al. (1998), and Newbold et al. (2002) among others support analyzing latent as well as manifest content of texts and tend to view qualitative and quantitative content analysis as complementary and parts of a continuum of methods which can be applied to capture meaning and impacts of texts. As Hansen et al. (1998:91) formulated, “content analysis is and should be enriched by the theoretical framework offered by other more qualitative approaches, while bringing to these a methodological rigor, prescriptions for use, and systematicity rarely found in many of the more qualitative approaches.”

2.6. Indices in Social Sciences

2.6.1. Previous research

Often more than one measure is used to tap a concept; therefore, multiple measures are needed to meet the requirements of content validity. “When two or more measures are combined into a single indicator, that indicator is called… [an] index” (Neuendorf, 2002:137). As Rapoport (1969:21) has defined, “A variable whose significance in an investigation does not depend on the physical entities or events from which it is derived is called an index.” According to Krippendorff (2004:58), “an index is a variable whose significance rests on its correlation with other phenomena.” Indices are indicators of “real-life” events that are happening or have happened outside of the textual context that is being analyzed. In social sciences, and content analysis in particular, indices are compared to smoke: as smoke indicates fire, an index is linked to the event it signifies (Pierce, 1930). Since in the social realm causalities are difficult or even impossible to establish with certainty (Neuendorf, 2002), indices are useful indicators of what we cannot observe directly. An index is different from a physical quantity. The latter is obtain in a measurement process and has dimensions (e.g., in space, time, or mass units). The former is frequently dimensionless numbers which express probabilities,
frequencies, or ratios; indices are typically obtained by counting. In social sciences, the entities that are counted to construct indices can be anything; however, occurrences of such entities have to be clearly recognizable (Rapoport, 1969). There are some notable examples of studies in social sciences that involved constructing indices:

- **Mahl (1959)** suggested that the ratio of disturbed speech to normal speech (speech-disturbance ratio) may serve as an index of a patient anxiety during a psychiatric interview. More specifically, the index is a ratio of the number of speech disturbances in a word sample (in Mahl’s study, two-minute interview segment) to the total number of “words” in this sample. The total number of “words” was understood as the sum of completed words, incomplete words, the distinct sounds caused by stuttering and incoherent sounds, etc. The researcher based the index on the instrumental model of communication (see section 3.3).

- **McClelland (1958)** understood the frequency of a category of assertions or images related to action, goals, and progress to indicate their producer’s achievement motive. The index was constructed to test the following hypothesis:

  “...a society with relatively high percentage of individuals with high n Achievement should contain a strong entrepreneurial class which will tend to be active and successful particularly in business enterprises so that the society will grow in power and influence” (McClelland, 1958:521).

The hypothesis was applied to the ancient Greek society and was tested on the various types of Greek literary documents in such categories as poetry, farm and estate management, public funeral celebrations, epigrams, war speeches and encouragement, and philosophical and religious writings.

- **The amount of public attention to a certain issue was indexed as the frequencies of textual references to that issue and the placement of these references in a medium. Placement was understood as an indicator of the issue prominence. For**
example, placement on a front page signaled larger attention than inside-page positioning (Budd, 1964).

- Merritt (1966) developed an index of the rising national consciousness among the 13 original American colonies based on newspaper accounts for years of 1735-1775. The researcher hypothesized that a shift in the use of the names of places in colonial England to the names of places in America was indicative of rising national consciousness. The decision to use this approach was partly motivated by a consideration that national sentiments are difficult to define and identify. Holsti (1969) and Krippendorff (2004) criticized Merritt’s approach as the one that ensures high reliability at the expense of content validity and suggested that Merritt’s index does not provide rich inferences into the phenomenon of rising national consciousness.

- A well known study by Gerbner et al. (1979) created a television violence index based on the number of violent scenes in fictional TV programs.

- Letters of complaints to city halls were used by Krendel (1970) to develop an index of citizen dissatisfaction, with municipal departments serving as categories for complaints classification. The study suggested that the index of citizen complaints can be as indicative of the urban life quality as more conventional statistics on health, social mobility, income, physical environment, etc.

- Flesch’s (1948, 1951) “readability yardstick” had been gradually developed in several studies, and the final formula uses average sentence length (in number of words) and average number of syllables per word as a combined measure of text readability. High validity of the index is almost universally accepted. For example, a version of Flesch’s yardstick is used by government contractors to finalize instructions to military personnel. Insurance companies also use it to evaluate contracts (Krippendorff, 2004). Danielson, Lasorsa, & Im (1992) applied a computer version of the Flesch’s index to compare readability of printed novels and news for the 100 year period. They found two diverging trends with regard to readability change – while novels have become easier to read, printed news have become harder to read, primarily due to the use of longer words.
In a domain of political sciences, Jamieson (1998) has constructed a campaign conduct index that takes into account American’s expressed concerns about how much money politicians spend on campaigns, what candidates say to get elected, candidates’ ethics and morals, and the proportion of negative ads used in political campaigns.

Mann (1944) used adjective-verb ratio introduced by Broder (1940) as an index of schizophrenia.

Osgood (1959) hypothesized that above-chance co-occurrences of nouns may be used as indicators of concept associations in speaker’s minds. This proposition was a basis for developing a technique of content analysis called contingency analysis.

A thematic content analysis where theme prevalence was examined over time was conducted by Danielson and Lasorsa (1997) using two newspapers, The New York Times and The Los Angeles Times. The researchers wanted to tap the perceptions of social change in the United States as reflected through these two prominent newspapers over 100 year period (1890-1989). They selected 10 days per year randomly and 10 sentences from the front page of each of these days edition of each paper, also randomly. They plot the occurrences of such words as “communist,” “communists,” and “communism” over the 100-year period. The dynamics of combined frequencies of these words were thought as an index of society preoccupation with the theme.

According to Holsti (1969) and Krippendorff (2004), there are five large classes of indices in mass communication research: (1) those based on frequencies, (2) those based on favorability, (3) those based on intensity, (4) those based on co-occurrences, and (5) those based on presence of absence of a reference or concept. All five index types are described below; however, more emphasis is given to frequency- and favorability-based types of indices as more relevant for this study.
2.6.2. Index typology

**Indices based on frequencies.** The frequency with which a symbol, idea, reference, or topic occurs in a stream of messages is taken to indicate the importance of, attention to, or emphasis on that symbol, reference, idea, or topic in the messages (Lasswell et al., 1952). Lasswell and his colleagues explain the symbolic character of communication using examples from their areas of expertise – content analysis in political sciences. They stated that

“As a means of surveying the significant features of a vast body of symbol materials, it is convenient to focus upon key symbols occurring in the flow of political statements. The role of key symbols in political life is deeply woven into the texture of the body politic, since symbols enter into the experience of everyone, irrespective of status.” (Lasswell et al., 1952:14)

This view was supported by Danielson and Lasorsa (1997) and Namenwirth (1973). Danielson and Lasorsa summarized textual material for a period of 100 years by using frequencies of references to such political symbol as “communism” in two prominent American newspapers. Namenwirth (1973) used frequencies of value variables to describe value change in America for a period of 120 years. He analyzed platforms of the Republican and Democratic parties for the period of 1844-1964 in order to test a hypothesis that the society concerns with various values (e.g., wealth or power) is cyclical.

All indices described earlier in this section incorporate frequency counts in some way. Quantifiable results can be obtained by adopting various forms of measurement, and the researcher has to choose both the recording unit and the system of enumeration that he will use in the content analysis project. The units of analysis were explained in section 3.4. The system of enumeration is concerned with how the analysis assigns numerical values while coding media content. The next two research examples are provided to clarify this issue. The recording unit and the system of enumeration may be identical. In a study by De Fleur (1964), a character in a television show was both the recording unit...
and the system of enumeration. The occupation of each character was recorded, and results were presented as the relative frequencies of various occupational types. In a similar study of soap opera by Arnheim (1944), recording and enumeration units were different. The recording unit was a single character, and the occupation of each character was initially recorded. However, the enumeration system was defined as a scene where characters appear. Thus, a scene involving three housewives was tallied only once, and not three times as would have been if the enumeration system was the character. Systems of enumeration can vary greatly in precision and in time required to classify data. The researcher must decide how fine the distinctions he needs in order to answer satisfactorily his research question. In general, greater precision leads to increased costs of analysis. Often the nature of the categories and the data are such that reliability of the analysis may be sacrificed in the search for maximum precision, in addition to higher costs.

**Indices based on favorability.** Favorability analysis is based on the theory of attitude which is sometimes defined as an evaluative response towards an entity, a predisposition to respond in a certain way (Cohen & Areni, 1991). As formulated by Eagly and Chaiken (1993:1), attitude is “a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor.” The number of favorable and unfavorable characteristics attributed to a symbol or idea is often viewed as an indicator of the attitudes held by the writers, the readers, or their common culture toward that symbol or idea. Attitude objects are valued, “liked” or “disliked” in degrees ranging from positive to neutral to negative.

“Attitudes are referred to as ‘tendencies of approach or avoidance,’ or as ‘favorable or unfavorable’… This notion is related to another shared view – that attitudes can be ascribed to some basic bipolar continuum with a neutral or zero reference point, implying that they have both direction and intensity and providing a basis for the quantitative indexing of attitudes.” (Osgood, Suci, & Tannenbaum, 1957:189)
The attitude with which the message is transmitted can have strong impact on image. As Boulding (1956:12) stated:

*The subjective knowledge structure or image of something consists not only of images of “fact”, but also images of “value”. Value scales of any individual are perhaps the most important single element determining the effect of the messages it receives on its image of the world. If a message is perceived that is neither good or bad it may have little or no effect on the image. If it is perceived as bad or hostile to the image which is held, there will be resistance to accepting it. The resistance can be perpetrated by repeating messages. The stability or resistance to change of a knowledge structure also depends on its internal consistency and arrangement. Messages that come through the senses are mediated through a value system. There are no such things as facts. There are only messages filtered through a changeable value system.*

Lasswell et al. (1952) asserted that an ideology can be expediently summarized when the focus is made on its key terms with respect to positive or negative treatment of these terms in the textual materials. Lasswell and his colleagues used the Communist ideology as an example. They stated that such symbols as “bourgeoisie,” “capitalism,” “imperialism,” “plutocracy” and “anarchism” are all treated negatively almost uniformly in the Communist party doctrinal pronouncements. Among positive terms of the communist ideology they named “communism,” “Communist party,” “world revolution,” “dialectical materialism,” “dictatorship of the proletariat,” “collectivism” and “class struggle.” However, in content analysis it is often impossible to decide on the favorability of key terms prior to the analysis: key terms need to be viewed in a context.

Assessing attitudes in terms of favorability can have different results depending on parameters of content analysis; it is known as the problem of enumeration. Holsti (1969:120) convincingly demonstrated that when newspaper articles (or editorials, in the Holsti’s example) are coded according to the frequency of favorable and unfavorable assertions about a specific issue, the results depend on the chosen enumeration unit. If the
unit of enumeration is the single assertion, results will point out whether the entire article is only somewhat or largely on one side or the other. Say, an article has 6 favorable, 4 neutral and 5 unfavorable assertions about a specific issue. Such an article, which is almost ambivalent, is clearly different from the one which has 5 favorable, 0 neutral and 0 unfavorable assertions regarding the same issue. However, if the entire article serves as an enumeration unit, i.e., if the whole text is classified pro or con a certain issue, this distinction will be lost. The choice of enumeration system underlines different assumptions of content analysis. By choosing the first method the analyst assumes that effect of articles is a sum of favorable and unfavorable assertions, i.e., the whole is the sum of its parts. The second method rests on the premise that the impact of pervasive messages is the overall impression created. Thus, the second approach assumes a more holistic point of view: the impact of the whole is different from the sum of its parts.

**Indices based on intensity.** There are qualifier words used in statements about a symbol that indicate the intensity, strength, or uncertainty associated with beliefs, convictions, and motivations that the symbol signifies. The analyst may find that for research concerned with values or attitudes simple frequency counts may be insufficient because intensity of expression is not taken into account. Often, the analysis simply cannot assume that frequency data, unadjusted for intensity of expression, can provide valid inferences regarding attitudes. Some of the problems can be illustrated by examining four statements from Chinese newspapers provided by Holsti (1969:123):

- “We find it necessary to disagree with Khrushchev’s policies.
- “We must bitterly denounce Khrushchev’s policies.
- “We will soon begin denouncing Khrushchev’s policies.
- “We have sometimes disagreed with Khrushchev’s policies in the past.

If the analyst is interested in discovering trends in China-USSR relations, some method of discriminating between the four statements in terms of intensity may be required. Nominal categories such as “favorable,” “unfavorable,” and “neutral” fail to differentiate between these themes – they all would be classified as unfavorable. Measuring the
intensity of content is often difficult, since it means that after content units are coded into respective categories, coders have to take one additional judgment – to decide on intensity of these units (Holsti, 1969). Since there is a wide range of linguistic elements which may indicate intensity, it is difficult to list all of them so that the coder considered them while making decisions.

**Indices based on co-occurrences and presence or absence of a reference or concept.** The frequency of co-occurrence of two concepts (excluding those that have grammatical or collocational explanations) is taken to indicate the strength of associations between those concepts in the minds of the members of a population of authors, readers, or audiences (Osgood, 1959). The presence or absence of a reference or concept is taken to indicate the source’s awareness or knowledge of the object referred to or conceptualized. Pool (1959) has observed that symbols of democracy occur less frequently where democratic processes govern than where they are in question; thus they represent something other than a degree to which democracy is accepted.

The suitability of the index type for a particular research should be considered prior to constructing the index. Rapoport (1969) compared two hypothetical situations in which two different women were presented with flowers. The reaction of one was shouting the word “beautiful” over and over again, while the other just looked at the flowers and barely audibly signed: “Beautiful.” These examples are supposed to illustrate that researchers should seriously consider when measures of frequencies or intensity are suitable to be included into index construction process (Krippendorff, 2004). There is also an issue with index validity, and a simple declaration of the index value is not enough: the researcher has to validate their indices by designing suitable tests.

### 2.7. Demand Models with Qualitative Factors

This section provides a brief literature review of econometric demand studies which included such qualitative factors as information about a product or product advertising in demand models. The purpose of such a review is to show that the idea of
using variables representing qualitative factors in modeling demand had been applied before to better understand the nature of product consumption.

Brown and Schrader (1990) investigated how scientific information about cholesterol levels and its connection to heart disease had influenced egg consumption in the US. The researchers developed two data series, one that indicated the cumulative sum of articles appearing in medical journals that support the link between blood serum cholesterol and heart disease (“negative information”), and another that indicated the cumulative number of articles that attacked or questioned the link (“positive information”). The researchers reasoned that consumers receive health information from many sources including physicians, neighbors, and the popular press. The hypothesis underlying the cholesterol index in that paper was that consumers’ attitudes toward cholesterol changed slowly as scientific information accumulated, so a lagged index based on articles in medical journals could serve as a proxy for information reaching consumers from many sources. The authors admitted, though, that this was a bold simplification, since the diffusion of health information is a complex process (Smith, van Ravenswaay, & Thompson, 1988). Results by Brown and Schrader (1990) indicated that the increase of information on the links between cholesterol and heart disease had decreased per capita shell egg consumption in the US.

A large body of research focused on advertising effects in modeling demand. Study by Kinnucan et al. (1997) investigated whether generic advertising and health information have detectable effects on US meat demand. These researchers selected the Rotterdam model which “lends itself to advertising applications (e.g., Brown and Lee 1993, Duffy 1987); and is more consistent with U.S. meat demand behavior than… (the linear approximate) Almost Ideal Demand System (Alston and Chalfant [1993])” (Kinnucan et al, 1997:14). The model was specified in quarterly form, with a one-period distributed lag in advertising and health information. The advertising data were obtained from quarterly publications by the Leading National Advertisers, Inc. A health information index was constructed using Brown’s and Schrader’s (1990) cholesterol information index as basic data. Kinnucan et al. (1997) combined the two basic data
series, “positive information” and “negative information” into a single index using formula: \(Z(t)=w(t)\times\text{NEG}(t)\). In this formula, \(w(t)\) is a weighting component that estimated a relative proportion of negative articles in the total number of relevant articles. The study found that health information had a significant effect in each of the four equations (beef, pork, poultry, and fish) estimated in the Rotterdam system. The estimated effects of generic advertising were found to be modest.

Chang and Kinnucan (1991) examined the roles of cholesterol and advertising in explaining consumption trends for fats and oils, focusing on butter. Results suggested that increased consumer awareness of the health effects of cholesterol had contributed to changes in butter consumption. The researchers also found that consumer response to negative information appear to outweigh their responses to positive information; however, the advertising campaign launched in 1978 by the Dairy Bureau of Canada had a positive effect on butter demand. Green, Carman, and McManus (1991) found that generic advertising effects for dried fruit are generally weak when compared to price and total expenditure effects. Empirical finding from advertising studies support the hypothesis that advertising has carryover (lagged) effects (see Brester & Schroeder, 1995; Cox, 1992; Jensen & Schroeter, 1992; Ward & Dixon, 1989; Wohlgenant & Clary, 1992). Kinnucan, Chang, and Venkateswaran (1993) as well as Reberte et al. (1996) found generic advertising wearout effect on fluid milk sales. Unfortunately, theory provides little information as to the structure and length of these dynamic processes (Brester & Schroeder, 1995).

Researchers have been aware of an issue that unfavorable product information appears to have a much stronger influence than similar amounts of favorable information on consumer decision-making process (Mizerski, 1982; Weinberger, Allen, & Dillon, 1981). Mizerski (1982) provided a summary of research concerned with disproportionate cognitive weighting of positive and negative information by consumers from marketing, consumer behavior, and psychology disciplines. Menzel and Katz (1955) followed by Rogers (1962) noted that unfavorable information tended to slow new product adoption; however, these authors did not present any quantifiable evidence. Arndt (1967) and
Reynolds and Darden (1972) found evidence that consumers did not buy products as result of the unfavorable information. The outcome of the study by Wright (1974) indicated that consumers placed more weight on negative information if time for their decision-making is limited. Weinberger and Dillon (1980) found that in homemakers’ evaluation of branded goods unfavorable information played a larger role, and the effect was moderated by the information source. All this evidence highlights the importance of information processing by consumers and, consequently, with what weights favorable and unfavorable information should be included while constructing the information-based index to be used in econometric models of demand. In the absence of clear recommendations, this is an area that can potentially affect the modeling results either way.
CHAPTER 3. METHODOLOGY

Chapter 3 outlines a theoretical background of content analysis methodology used for constructing the DDII. The most important and distinctive steps of the proposed approach, such as defining textual population, selecting the sample, defining content categories, coding procedure, and assessing favorability of media messages are described as separate sections of the chapter. The chapter also highlights the importance of estimating the reliability of category and favorability coding. In addition, it discusses the concept of research validity and touches on various aspects of the validation process for the obtained DDII.

3.1. Textual Population

When a social scientist studies people’s opinions, attitudes, and behavior using content analysis, the process of data collection differs from that of used in natural sciences research, where measurements are obtained in more controlled environments. A major research consideration is defining a population of textual materials. Textual population is the set of all units under study to which the researcher wants to generalize the results of his/her analysis. In content analysis, population is usually a set of messages, e.g., all newspaper editorials for a given year or all textbooks for a certain period of time. It may, however, be a population of people who in the process of the study produce messages that are to be analyzed, e.g., open-ended responses to survey questions.

Methodological approach proposed in this study is based on a premise that for every question of interest there is a universe of textual data, i.e., text population, from which a representative sample can be drawn. Applying an appropriate methodology, a researcher is able to get a response from any textual unit in the sample on every variable
of interest and measure it in order to obtain a numerical matrix of frequencies for constructing the DDII (Neuendorf, 2002; Roberts, 2000). The proposed DDII is market specific and need to be constructed for a certain time period. The DDII of one and the same destination will differ in different tourist markets and for different periods of time. Before the researcher starts a content analysis project of constructing DDII for a specific destination on a particular market, he/she has to define the population of relevant textual materials that adequately reflect the destination image. Depending on a particular situation, the textual population can be defined as, for example, articles about destination A published in newspapers of country B. If the textual population is large, then sampling is most likely required. Drawing a randomized sample from the defined population (see section 3.2) allows generalization of research findings on the whole population. In the case of a “not so large” population, the analyst can survey all textual units. As Holsti (1969:130) stated, sampling procedure “may involve as many as three steps: selecting sources of communication, sampling documents, and sampling within documents.”

Lasswell et al. (1952) make a strong case why newspapers are suitable sources for political content analysis research. Some of their arguments concerning suitability of newspapers for content analysis apply to other areas of scientific inquiry as well. For example, newspapers appear regularly and frequently. They have uniform formats and many of their parameters, such as circulation, geographical area of distribution, social and political orientation, ownership, etc. are known. The researcher is relatively sure who controls and who reads the news. It is easy to distinguish newspaper editorials from news, letters to editors, and other types of materials. Newspapers are conveniently accessible from electronic databases and archives date well back into the past. Newspapers continue to hold a prominent position despite growing competition from TV news and the Internet. When the population is defined, it provides a basis for consecutive sampling.

3.2. Sample Selection

Nonrandom, or nonprobability, samples such as convenience and quota sampling are undesirable in content analysis and should be avoided whenever possible (Neuendorf,
Findings from nonrandom samples are not generalizable on the entire population of sample units. For the data to be representative of the population under study social sciences employ various sampling techniques, which would ensure the generalizability of study results. Thus, sampling is the process of selecting a subset of units for the study from the larger population. Fink and Gantz (1996:117) provide a succinct description of choices the researcher generally has:

“For the social science tradition, generalizing from the sample to the population is important. As a result, probability [random] sampling serves as the ideal. When constrained (e.g., by time or money), social scientists turn to nonprobability [nonrandom] samples.”

The standard way of drawing a sample from a target population is to randomly select population elements until the desired sample size is obtained. This procedure is known as Simple Random Sampling (SRS). To be considered SRS, all elements should have the same probability of being included in the sample. From the statistical perspective, SRS is the simplest of all probability based sampling techniques. SRS is usually done without replacement, which in the case of sufficiently large populations does not affect probability of selection very much. SRS ensures that in the case of large enough sample, it represents the population under study and generalization of results is possible. However, SRS requires a complete sample frame, which is not always attainable, or, in the case of large populations, feasible to construct. With respect to content analysis of general media, a researcher may decide that their textual population is, for example, all advertisements appeared for a certain period of time in a particular journal. Sampling frame of such a population can be easily constructed by using library issues of this journal. In their media research on U.S. budget deficit, Jesperson et al. (1998) extracted all relevant stories from the Lexis-Nexis database over a selected 7-month period using an elaborate search string. Their population contained 42,695 articles, from which the researchers selected a simple random sample. In some instances researchers want to ensure that their sample drawn from the population is evenly spaced through time (Newhagen, Cordes, & Levy, 1995; Stepchenkova, Chen, & Morrison,
Then, they might use the systematic random sampling technique. Systematic random sampling consists of selecting every n-th unit, either from the sampling frame or in some flow of event occurrence over time. For systematic sampling to be random, it is assumed that the process begins with a random start, between 1 and selected n. Lohr (1998) proposed a technique for selecting that first randomized number. If the identified population is small, all its elements can be included in the study, which would then be called census. The example of a census is a study by Miller, Fullmer, and Walls (1996) who analyzed all 995 journal articles obtained from the ERIC (Educational Resources Information Center) database using a search keyword “mainstreaming.”

It is often the case that within the population of interest there are subgroups (strata) that are relatively homogeneous with respect to certain variables. At the same time, there is a high variation in these variables between strata. In such cases, researchers can choose to stratify the population before randomly sampling within each stratum. The strata should be mutually exclusive and collectively exhaustive. Such a strategy often improves representativeness, since researchers make sure that they have enough elements from each stratum. The technique can produce a weighted mean that has less variability than the arithmetic mean of a simple random sample of the population. If variation in the characteristic we are trying to measure differs between strata, more precise estimates relative to a simple random sample can be obtained. Another advantage is that when using a stratified sampling technique, a researcher can focus on important subpopulations while ignoring irrelevant ones. However, it is sometimes difficult to select relevant stratification variables, and the technique is somewhat less useful when there are no homogenous subgroups. It is also requires accurate information about the population, which might be costly, or it introduces bias. The main objective of stratified sampling is to increase precision. In choosing a stratified random sample, each member of each subclass (or stratum) of the population has an equal probability of being included in the sample, but a different proportion of each subclass may be chosen. Put another way, the probability of a particular member of the population being chosen depends on which subclass that member belongs to. Smith’s (1999) study of women in film is an example of stratified sampling. The researcher was interested in comparing women’s role portrayals
during three decades: 1930-1950 (the Golden Age of Hollywood) and 1990-2000 (contemporary period). She stratified according to decade by constructing three sample frames of the top box office films featuring women, one for each target decade, and then conducted a systematic random sample for each. Breen (1997) stratified the whole time period he was interested in into seven sub-periods and draw a sample of 100 articles from each period for period comparisons.

Another modification of SRS is cluster sampling. Contrary to stratified sampling technique, elements within clusters should be as heterogeneous as possible, but sample means of clusters should display homogeneity. Cluster sampling naturally arises when geographically dispersed population has to be surveyed (in content analysis of media sources clusters often represent a time frame – week or month). In such a case, the total area is divided into clusters by geographic proximity. The clusters should be mutually exclusive and collectively exhaustive. A typical procedure includes two stages. At the first stage there is an SRS of clusters which are to be surveyed. At the second stage SRS of subjects are drawn from the selected clusters. Every cluster can be considered as a small scale representation of the population; thus, we have heterogeneity within clusters. However, homogeneity between clusters is also ensured. Statistically, it is usually necessary to increase the total sample size to get precision of estimates equivalent to those of SRS. Cluster sampling technique usually has higher sampling errors. One example of using a cluster sampling technique in content analysis research is a study conducted by Lin (1997). The researcher collected a full week of broadcast network prime time TV commercials, with the month and week randomly selected.

There are various modifications of the clustering technique. It can be done in one stage, or in more than two stages. Clusters can be chosen with probability proportional to their size. In the last case, the same number of observations should be conducted in each sampled cluster to ensure that each unit sampled has the same probability to being selected. In cluster sampling the analysis is done on the population of clusters while in the stratified sampling the analysis is done on the elements within strata. In stratified sampling every strata (or non-randomly selected strata) is included into analysis while in
the cluster sampling analysis is conducted on randomly chosen clusters. The main objective of cluster sampling is to reduce costs by increasing sampling efficiency. Sometimes studies use multi-stage sampling technique. Hills and Hughes (1997) employed a two-stage sampling technique. They first randomly sampled newsgroups from a sampling frame obtained from USENET. Then, they randomly sampled threads of discussion from those newsgroups selected. Some combination of random sampling techniques is also common in content analysis (Neuendorf, 2002). Danielson and Lasorsa (1997) used a stratified, multistage, cluster sampling in their study of symbolic content in sentences on the front pages of the New York Times and Los Angeles Times over a 100-year period. They stratified by newspaper, randomly selected 10 days per year, and then randomly chosen sets of 10 sentences (clusters) from the front page of each day’s issue.

Holsti (1969) in his seminal work “Content analysis for the social sciences and humanities” states that some sampling guidelines applicable to newspaper research are available from experimental studies. Mintz (1949) compared four methods of sampling newspaper headlines in *Pravda* with the data for the entire month. The results revealed that every-fifth-day samples (fifth, tenth, fifteenth, twentieth, twenty-fifth, and thirtieth day of each month) and odd-day samples did not differ significantly from the figures for the entire month. On the other hand, weekly samples were inferior. These findings were supported by another study, in which every-sixth-day samples provided sufficiently accurate results for most research purposes (Davis & Turner, 1951). Stempel (1952) drew samples of 6, 12, 18, 24, and 48 issues of a newspaper and compared the average content for a single subject matter category against the average for the entire year. The data indicated that each of the five sample sizes was adequate, and that increasing the sample size beyond 12 did not produce significantly more accurate results. Neuendorf (2002) lists research by Lacy, Robinson, and Riffe (1995), Riffe, Lacy, and Fico (1998), Riffe et al. (1996), Riffe, Lacy, and Drager (1996), Riffe, Aust, and Lacy (1993), Lacy, Riffe, and Randle (1998) as principal and most comprehensive with regard to optimal sampling procedure and sample size for news media.
Content analysis often results in a sample statistic, which is used to estimate a population parameter, e.g., the average number of hours that characters from a certain social class or race appear on TV in a month. Content analysis can be repeated many times with different samples, and different sample statistic will be obtained each time. Each of these statistics can be used to estimate the same population parameter. Any given statistic will differ from the population parameter (however, if the statistic is unbiased, the average of all statistics from all possible samples will equal the true population parameter), the variability among statistics from different samples is called sampling error. Increasing the sample size usually reduces the sampling error, but not in cases when sample bias is introduced into research design. That is large samples cannot correct for methodological mistakes. How large should the sample be to permit generalization within specified confidence limits? There is no universally accepted set of criteria for selecting the size of a sample in content analysis of media materials. A common practice is to base sample size on work of others in the area (e.g., Beyer et al., 1996; Slattery, Hakanen, & Doremus, 1996). A more generalized method of determining the desired sample size is to calculate it using formulas for standard error and confidence interval (Neuendorf, 2002).

Selecting communication sources is the first sampling decision, which has two aspects – theoretical and practical. Theoretically, the researchers may draw a random sample of the sources – i.e., a sample in which every source has an equal chance of being selected – by one of several standard methods, including a table of random numbers. This procedure is justifiable when every source can be considered equally important for purposes of the study and when a sample frame of the sources can be constructed. When all sources or sampling units are equally informative with regard to the research question, sampling in content analysis is the same as sampling in survey research where all sampled individuals are considered equally knowledgeable about the researchers’ questions. However, in practice, texts used in content analysis projects are typically created for purposes other than being content analyzed. And it is rare for different sources or textual units to have equal relevance to the research question.
“Content analysts are rarely interested in accurate representations of the textual universe; rather, their concern is that the selected texts are relevant to the research question and help to answer it fairly. Texts must be sampled in view of what they mean, the interpretations they enable, and the information they contain. Thus, content analysts have to sample their texts to give their research questions a fair chance of being answered correctly” (Krippendorff, 2004: 113).

When sources are unequally informative or differ in some other way – influence, circulation, or format – the selection of sources and sampling of texts depends on what is known about the distribution of content within a universe of all textual materials. That is why researchers in content analysis often employ sampling of the most relevant material aiming at selecting all textual units that contribute to answering given research questions. Relevance sampling, therefore, is also called purposive sampling (see, e.g., Riffe et al., 1998: 86).

Purposive sampling is so accepted in content analysis research that it is rarely discussed as a category of its own (Krippendorff, 2004). The method may be applied to reflect qualitative and quantitative aspects of the sources which are deemed important. Analyses often focus on “prestige” newspapers and journals because they are felt to represent most adequately the views of political elites (Angel, Dunham, & Singer, 1964; Lasswell, Lerner, & Pool, 1952; Namenwirth, 1969) and, therefore, are considered “more influential” than local papers. For example, Wells and King (1994) limited their content analysis to the New York Times, the Washington Post, the Los Angeles Times, and the Chicago Tribune in a study of the media coverage of foreign affairs during the 1990 U.S. congressional campaign. Quantitative criteria are also important in purposive sampling, one of them being the source’s circulation figures. For example, Kayser (1953) analyzed the largest circulation newspaper in each of 15 countries. Schneider and Dornbusch (1958) examined only that sample on inspirational literature, which appeared on best-seller lists. McGranahan and Wayne (1948) confined their study of German drama to the most widely attended plays. Quantitative criteria posit that the most widely distributed source reaches the largest number of people and, therefore, views expressed in that
source have more influence in forming the views of the public. According to Krippendorff (2004), most researchers adopt some kind of relevance criteria for defining the population of textual materials from which they sample.

3.3. Categories

One of the issues debated in the content analysis literature is that of standard categories (Holsti, 1969). Like in any other area of scholarship, the advantages of standardization include a possibility of comparing across studies as well as findings accumulation. However, the diversity of purpose which characterizes content analysis research makes standardization of categories difficult. Pool (1959:213) succinctly pointed out the shortcoming of the standardization:

It is questionable, however, how ready we are to establish standard measures... in content analysis. Such a measure is convenient when a considerable number of researchers are working on the same variable, and when someone succeeds in working out good categories for that variable. It is doubtful that either of those criteria can be met in most areas of content analysis.

Holsti (1969) provides lists of categories which were used in various areas of content analysis inquiry over time and gives an account of standardization efforts. More than four decades later, the issue of standard categories is yet not resolved (Krippendorff, 2004; Neuendorf, 2002).

There are two main traditions in the quantitative content analysis research delineated by Weber (1983): substitution model and correlational model. In the substitution tradition, text is analyzed with a priori established categories which are understood as “a group of words with similar meaning and/or connotations” (Weber, 1983:140). For example, words “ice,” “snow,” and “igloo” all represent the same idea of cold, thus, can be united under one category, that of “cold” (Hogenraad, McKenzie, & Peladeau, 2003). Various categories are organized into dictionaries, which are used for making necessary substitutions in the text and obtaining category frequency counts.
These frequencies are organized in a matrix, and associations/correlations between categories can be calculated. Over the history of content analysis several well-known dictionaries were developed, for example, the Harvard IV Psychological Dictionaries (Dunphy, Bullard, & Crossing, 1974; Kelly & Stone, 1975), and the Lasswell Value Dictionary (Lasswell & Namenwirth, 1968).

The correlational model, on the opposite, discerns categories from the text analyzed. In this tradition categories are “groups of words with different meaning or connotations that taken together refer to some theme or issue” (Weber, 1983:140). These themes, or categories, are extracted from the matrix of word frequencies by a means of factor analysis or other multidimensional scaling technique. First order exploratory factor analysis is the statistical model that corresponds to inferring themes from word covariations (Weber, 1986). Use of factor analysis for inferring themes from textual data was advocated by Iker (1974). He gave a historical account of the method of inferring themes from textual material, which was almost simultaneously and independently discovered in three areas of research: automatic document classification by computer based on associated frequencies (Borko, 1965; Luhn, 1957, 1958); social sciences (Iker & Harway, 1965); and literary analysis (Miles & Selvin, 1966). Below is an extensive quote from Iker and Harway (1965:173), which explains the idea of inferred categories:

*Our unit of information is the word itself. Dividing an interview into segments of time, i.e., one minute segments, we count the frequency... with which each word appears in each time segment. Using these data, inter-correlations among all words are obtained; operationally, these correlations represent the degree of association between words as they are observed across successive segments of interview time. Our assumption is that words which correlate highly with each other have much in common in defining topic... We therefore factor-analyze this matrix of word inter-correlations to determine in a systematic fashion, if there are common factors which can account for the obtained correlations in an efficient and meaningful way. The associations between the words in such obtained factors are then used to identify and interpret the factors.*
In the context of DDII research, sampling units from media communications are used instead of recorded interviews; however, the idea of word association remains the same. Simon and Xenon (2004) advocate the use of a similar, though not identical, methodological approach for analysis of political texts; their approach is grounded in the correlational model of quantitative content analysis and the theory of latent semantic analysis (Landauer & Dumais, 1997) that supports data-driven category selection. One can follow the debate on the theoretical soundness and comparative advantages of substitution and correlational tradition in Weber (1983), Muskens (1985), and Weber (1986).

The proposed approach for constructing DDII is based on the substitution model: themes regarding a particular destination found in media messages are classified into pre-chosen categories. The correlational tradition, in the author’s opinion, is more suitable for computer assisted text-analysis when themes are inferred by analyzing the frequency matrix of the most used words (Stepchenkova & Morrison, 2008). Destination image attributes such as landmarks, natural resources, climate, infrastructure, people, etc. have emerged numerous times in the destination image studies (Crompton, 1979; Echtner & Ritchie, 1991; 1993); these destination attributes can be a starting point for a process of category selection in any content analysis project involving construction of DDII. Yet, it would come as no surprise if the final category set for such destinations as Aruba would be somewhat different from that of such destination as Russia, since the two destination are of different type, and, hence, topics of media messages would inevitably differ. Thus, the thematic categories are specified based on the destination image theory and the nature of textual material contained in sampling units. As Glaser and Strauss (1969) recommend, part of the collected textual materials should be read before the thematic categories are finalized. The coding procedure is conducted using content analysis methodology, a well established method in social and behavioral sciences.
3.4. Units of Content

In content analysis projects, in addition to determining the categories into which content data need to be sorted, the researcher must designate the textual units for coding. Krippendorff (2004:97) defines units as “independent elements of content.” Neuendorf (2002:71) states that

“a unit is an identifiable message or message component, (a) which serves as a basis for identifying the population and drawing a sample, (b) on which variables are measured, or (c) which serves as the basis for reporting analysis.”

Most researchers recognize three main unit types: sampling units, recording units, and context units. Sampling units provide a basis for identifying textual population relevant to research question and selecting a sample for content analysis. Sampling units are pieces of content which are drawn, collected, or otherwise selected with the goal to represent the whole universe of textual materials pertinent to a particular research question. Inferences made in a process of content analysis of selected sample units ideally should be generalizable on the whole population of texts. In survey research, sampling units are mostly single persons. In content analysis, sampling units can be newspaper articles, stories in magazines, TV advertisements, etc. The size of the sampling unit should be adequate to represent the phenomenon under investigation. For example, Hill and Hughes (1997) defined their sampling units as the entire thread of discussion found in USENET newsgroups formed for discussing American politics. Since these authors were interested in discussion dynamics, choosing a single posting rather than an entire thread would not serve their purpose.

Holsti (1969:116) defines recording, or coding, unit as “the specific segment of content that is characterized by placing it in a given category.” Recording units are typically contained in sampling units, at most coinciding with them but never exceeding them. According to Holsti, almost all content analysis studies before 1969 had used one of the five types of recording units: single word or symbol, theme, character, sentence or paragraph, and the sampling unit. The single word or symbol is generally the smallest
unit that is employed in content analysis research. Words and symbols were used in studies on readability (Flesch, 1948; Taylor, 1952), style (Miles, 1951), psychotherapy (Dollard & Mowrer, 1947), and authorship detection (Mosteller & Wallace, 1964). Theme, which is understood as a single assertion about some subject matter, was widely used in research on propaganda, values, and attitudes. Coding themes “by hand” is time consuming, which is considered a main disadvantage of this recording unit. Comparing to words or symbols, theme, in some sense, is more complex. The coder often needs to reduce the sentence, i.e., grammatical unit, into its component themes, i.e. recording units, before these recording units can be placed into established categories. This process is a source of error and can seriously reduce reliability in content analysis. Another recording unit, character, is used in studies of literature, movies, and/or radio. Recording units of the sentence or paragraph are usually difficult to classify into a single category, which is a main reason why these recording units are rarely utilized in content analysis. Finally, there are cases when the entire sampling unit, i.e., article, film, or book, is characterized (Schneider & Dornbusch, 1958). This unit is considered as too aggregated for many types of research and hardly ever used.

It is not always possible to classify a recording unit into one of the established categories without considering a context in which it appears. For example, a researcher may be required when he meets a word “democracy” to search an entire sentence or a paragraph in order to find out what the attitude toward democracy is exhibited by the source of content. In such cases, two issues merit consideration. First, the researcher needs to decide what context unit better meets the requirements of the research problem. And, second, researchers should consider efficiency of the analysis, i.e. decide on how to obtain satisfactory results using the least amount of expenditure or resources. It should be bore in mind, however, that selection of context units can affect results of the analysis, as was demonstrated by Geller, Kaplan, and Lasswell (1942). In their study, subjects had to judge whether references to “democracy” in newspaper articles were positive, negative, or neutral based on four types of context units – a sentence, a paragraph, three sentences, and the entire article. The results of the analysis were generally in agreement on how democracy was presented in the article – favorable, unfavorably, or neutrally. However,
the evaluations differed with respect to extent of the bias. With the size increase of context units the number of neutral evaluations decreased significantly.

It should be mentioned here that in addition to the three units of analysis, some researchers recognize one more unit type – a reporting unit (Neuendorf, 2002). The reporting unit is the element on which data are analyzed and for which findings are reported. In most social and behavioral science investigations, the individual person is both the unit of data collection and the reporting unit. In content analysis research, however, units of data collection and reporting can differ. While sampling unit can be an article or a story, the reporting unit of can be a month or a year (Weyls, 2001).

Sampling stage of content analysis may involve as many as three steps: selecting sources of communication (e.g., newspapers), sampling documents (e.g., issues of a particular newspaper), and sampling within documents (e.g., editorials or headlines) (Holsti, 1969). Suppose that the newspaper sources and relevant articles within the sources have been selected, and each article constitutes a sampling unit, i.e. the researcher is not sampling within a single article by selecting only, say, the first paragraph. Next, the researcher has to answer at least three questions with respect to units of content analysis: (1) what are recording units? (2) What are context units? And (3) what are reporting units? Recording unit is a piece of content, i.e., a word, a sentence, a theme, or a whole sampling unit, which is classified into chosen categories. Often, a context unit has to be identified as well, since the meaning of a recording unit is seen more clearly from a surrounding context. The results of the coding procedure can be reported by some time period – a week, a month, a quarter, or a year.

3.5. Category and Favorability Coding

The researcher needs to extract information about the destination from selected sampling units. These units are analogues to human subjects in research designs involving surveys (Neuendorf, 2002). The researcher needs to obtain a response from these subjects on selected variables of interest, i.e., categories. If the recording unit is a
single article, each article in the sample is classified into one of the pre-selected categories, for an example see section 5.4. If the recording unit is a word, then words that fall into pre-specified categories are counted. Thus, each sampling unit has a score in every category. These scores are basically frequencies of mentions of a particular destination theme in that sampling unit.

Every theme, reference, or article about the destination can also be assessed in terms of favorability as positive, negative, or neutral. Favorability assessment is grounded in the theory of attitudes (see section 2.6) and is usually conducted by assigning to a particular recording unit a score of “+1” (if the reference is favorable), “0” (if the reference is neutral), or “-1” (if the reference is unfavorable). Category and favorability scores are multiplied. Scores that every single article receives in each category can be combined for each time period by aggregating scores of the sampling units which fall in that period – a week, a month, a quarter, or a year. When scores are added up across all sampling units for each time period, the dynamics of every category across all time periods is obtained. At the end of a coding procedure, every category is associated with a series of scores C(t=1), C(t=2), … C(t=T); these series are essentially time series, or news dynamics in a particular category for a chosen period of time. The data are in the matrix form, where the rows are time periods, the columns are categories, and cells contain category scores. Depending on favorability assessment, elements in the matrix can be positive, negative, or zero. These series of scores are the DDII series, or news series, that can be combined to form a single index.

3.6. Reliability Estimation

To satisfy the criterion of objectivity, measures and procedures adopted by the research must be reliable. Kaplan and Goldsen (1965:83-84) stated that

“…the importance of reliability rests on the assurance it provides that data are obtained independent of the measuring event, instrument, or person. Reliable
data, by definition, are data that remain constant throughout variations in the measuring process."

One of the aspects of reliability is stability, i.e., the extent to which a measuring procedure yields the same results on repeated trials. Or, in words by Weber (1990:17), “stability refers to the extent to which the results of content classification are invariant over time.” Assessment of stability of research procedures are conducted with the data obtained in test-retest conditions, usually after some time has passed from the first trial. Another aspect of reliability is called reproducibility or inter-coder agreement. Reproducibility, which sometimes is called inter-coder reliability, is a function of coders’ skill, insight, and experience, clarity of categories and coding rules, and the degree of ambiguity in the data. Since the nature of the data is usually beyond the investigator’s control, opportunities for enhancing reliability are most often limited to improving coders, categories, or both. Unless an objective instrument such as a computer is used for coding, the analysts must rely upon pooled judgments of coders. Experimental studies have demonstrated that training of coders conducted prior to the coding procedure can significantly increase inter-coder agreement (Kaplan & Goldsen, 1965; Woodward & Fransen, 1948). Inter-coder agreement can be computed by a variety of methods; for reference see Holsti (1969), Neuendorf (2002), or Krippendorff (2004). Defining an acceptable level of reliability in content analysis is a problem for which there is no single solution.

3.7. Validation

In contrast to reliability, validity cannot be asserted or declared through repeated trials. Validity is the extent to which research design on the whole and measurement procedure in particular lead to inferences about the concept under investigation. In thinking about validity, we ask the question, “Are we measuring what we want to measure?” Adequate sampling and reliability are necessary but not sufficient, conditions for validity. Unreliability limits the chance for validity. If the coding of textual material is a matter of chance, the researchers cannot attest to validity of the results, even is the true
account of what happens in the data is presented. Reliability does not guarantee validity either. E.g., computer-assisted content analysis, though perfectly reliable, can be invalid if conceptually inappropriate words, symbols, or categories are specified for counting. Holsti (1969) as well as Krippendorff (2004) point out that researcher’s pursuit for high reliability may diminish validity of the study. Content analysts are always confronted with the choice what to prefer: more interesting and less reliable text interpretations or highly reliable but somewhat superficial text analyses. Merritt’s (1966) index described in section 2.6 illustrates this consideration: a shift in the use of the names in the newspapers of the 13 original American colonies from colonial England to the names of American places may be indicative of growing national identity; however, more insightful account of this process could have been attained through richer, through less reliable, analysis.

Validity is a basis for taking the results of scientific inquiry seriously. Valid research provides grounds for developing theories and designing consecutive studies. There are various validity typologies; most researchers, however, recognize the following kinds of validity: content validity, construct validity, concurrent validity, and predictive validity. Content validity is the extent to which the measure captures all aspects of the phenomenon under investigation; it is usually established through the educated judgment of the researcher. For example, if the investigator measures a student’s learning aptitude, a single score of reading abilities is not enough. Ability to work with numbers, abstract concepts, and spatial patterns also needs to be assessed. If research is of a descriptive nature, it is usually suffice to establish content validity. Some researchers use the term “face validity” and classify it under the type of content validity, or even equate the two. However, Nunnally (1978:111) distinguishes content and face validity, since the latter “concerns judgments about an instrument after it is constructed.” Face validity reflects “obvious” or “common truth” of the measure, the belief that the measure is plausible and “makes sense” (Krippendorff, 2004), thus, at best reflects only one aspect of content validity.
Construct validity recognizes that many social and behavioral concepts such as self-esteem, depression, anxiety cannot be observed directly. Construct validity is “concerned with both validating the measure and the theory on which this particular measure is based” (Holsti, 1969:148). In words of Neuendorf (2002:117), construct validity is “the extent to which a measure is related to other measures (constructs) in a way consistent with hypotheses derived from theory (Carmines & Zeller, 1979).” Construct validity requires that hypotheses derived from the theory should yield comparable results in diverse settings, i.e., results should not be situation-specific. To assert construct validity, it is not enough to establish that variable X can distinguish between individuals of certain types, the researcher also needs to explain why variable X has the properties that allow such a distinction. When Gottschalk (1995) proposed such psychographic content analytic measures as depression and hostility, he also attempted to investigate whether these measures relate with other variables, as was asserted by the theory. The need for construct validity is often highlighted by the scholars; however, according to Neuendorf (2002) few studies report tests for construct validity. Among those that do are Bales (1950), Poole and Folger (1981), Hill, Hanna, and Shafgat (1997).

Concurrent and predictive validity are the two aspects of criterion validity (Holsti, 1969; Neuendorf, 2002). As Nunnally (1978:87) formulated, criterion validity “is at issue when the purpose is to use an instrument to estimate some important form of behavior that is external to the measuring instrument itself, the latter being referred to as a criterion.” For example, a written driver’s test is criterion-validated if it can accurately predict a person’s performance as a driver. Obviously, the test would be low on criterion validity if the correlation between the test results and person’s performance on the criterion is poor. If the criterion exists at the present, concurrent validity can be assessed by correlating a measure and the criterion at the same point in time: a verbal report of voting behavior can be correlated with participation in the elections as reflected in official records. A study by Pershad and Verma (1995) provides an example of a concurrent validity check. These researchers used as a criterion the clinical diagnoses of schizophrenia for subjects who participated in their content analysis study of verbalized responses to ink-blots. Predictive validity is concerned with the ability of a measure to
predict future criterion: for example, predictive validity is essential for a test which is
used to select applicants for a particular job (Carmines & Zeller, 1979). Numerous
examples of predictive validity can be found in content analysis studies on propaganda.
When access to Nazi documents following World War II was granted to the researchers,
accuracy of inferences in predicting aspects of Axis behavior was verified, and, thus,
predictive validity of the studies was asserted (George, 1959b:253-284; Berelson & De
Grazia, 1947).

The proposed methodology is tested with respect to two very different
destinations. One is Aruba, an established “see, sand, and sun” destination in the
Caribbean. The travel market is the U.S., and the textual sources are ten general U.S.
newspapers with the highest circulation. The DDII-Aruba is constructed for a period of
May 2004-April 2006, with the reporting unit being one month, and contains 24 points.
The DDII is validated using a simple regression model of arrivals to Aruba. The other
destination is Russia, a country that opened to international visitors relatively recently, in
the early 1990s. Russia is a more complex destination with respect of a variety of topics
found in the news about this country. The DDII-Russia was constructed on the UK travel
market using three most prominent British newspapers – The Times, The Guardian, and
The Independent. Years 1992-2007 were chosen as a period for the DDII-Russia. The
reporting unit was one quarter; thus, the DDII-Russia contained 64 points. The DDII-
Russia was validated by placing it in the model of UK tourist arrivals to Russia for a
CHAPTER 4. DDII-ARUBA: PILOT STUDY

A pilot study has been carried out to demonstrate the proposed methodological procedure for the DDII, as well as to test its feasibility. An established destination where a negative event had happened was chosen in order to see if the proposed DDII is sensitive enough to capture increased negativity in media coverage. On May 30, 2005 an Alabama teen, Natalee Holloway, disappeared in Aruba, a Caribbean island which is regarded as a mature “sea, sand, and sun” destination (Jaffe, 2006). The incident was widely covered in the U.S. general press. There were attempts to organize a boycott of travel to Aruba in the media: “The governor of Alabama… called a travel boycott to Aruba…, alleging foot-dragging in the case of Alabama teen Natalee Holloway, who has been missing since May 2005” (“States, landmarks facing tourism boycotts” USA Today, March 10, 2006). The time period for which the DDII-Aruba was constructed is May 2004-April 2006, a year before and a year after Natalee Holloway’s disappearance. The aim was to demonstrate the procedure and to see whether the DDII-Aruba reflects the incident, i.e., whether the index plummets due to negative news coverage. To see whether the index correlated with other data obtained independently, a validation of the DDII-Aruba was conducted using the DDII-Aruba as an independent variable in a regression model describing total arrivals to the island of Aruba.

4.1. Textual Population and Sample Selection

As was discussed in section 3.2, sample selection for media content analysis consists of three steps: selection of media publications, selection of the documents, and sampling of the relevant content within the documents. For this study, general U.S. newspapers were selected as a data source for the reasons of their strong influence on public opinion, high circulation and, therefore, high accessibility to the general public, as
well as geographical dispersion. A list of 100 U.S. newspapers with the largest circulation was consulted (www.infoplease.com/ipea/a0004420.html). The first 15 newspapers from the list along with their circulation figures (reported to the Audit Bureau of Circulation, as of March 31, 2006) are given below. These newspapers represent geographically dispersed and densely populated areas of the U.S. It was decided to select ten publications from the top of the list and view them as a representative sample of the U.S. influential newspapers. However, not all publications in the top 10 are indexed in Lexis-Nexis database (examples are Wall Street Journal and Chicago Tribune). When a publication from the top 10 list was not indexed, a publication which stands lower in the list was chosen instead, e.g., Post (New York, N.Y.) and Star Tribune (Minneapolis).

- USA Today (Arlington, Va.) – 2,528,437
- Wall Street Journal (New York, N.Y.) – 2,058,342
- Times (New York, N.Y.) – 1,683,855
- Times (Los Angeles) – 1,231,318
- Post (Washington, DC) – 960,684
- Tribune (Chicago) – 957,212
- Daily News (New York, N.Y.) – 795,153
- Inquirer (Philadelphia) – 705,965
- Post/Rocky Mountain News (Denver) – 704,806
- Chronicle (Houston) – 692,557
- Post (New York, N.Y.) – 691,420
- News/Free Press (Detroit) – 669,315
- Morning News (Dallas) – 649,709
- Star Tribune (Minneapolis) – 606,698
- Globe (Boston) – 604,068

It was decided to collect all materials related to Aruba, which had been published in these newspapers one year before and after the incident to detect the difference in newspaper coverage of the destination. Various combinations of search words and search
parameters/options were tested in order to obtain the most relevant data. The final search string was: (aruba and (tour! or travel) and date aft 1 may 2004 and date bef 30 april 2006). It means that Lexis-Nexis returned all articles which had the word “aruba” and at the same time the word “travel” or words starting with “tour,” for a period May 1, 2004 – April 30, 2006. The words “travel” and “tour!” were included to ensure that the articles were indeed travel-related. It was noted that choosing articles with only the word “aruba” in the body expanded the sample significantly by including a great many business and financial texts. At the same time, choosing only the articles with the words “aruba” or “aruban” in the headlines significantly decreased the sample. The total number of articles collected was 229; however, not all selected newspapers had published on the topic: surprisingly, there were no returns from the Los Angeles Times. An input of each of the selected newspapers is given below:

1. The Washington Post (42)
2. The New York Times (39)
3. The Houston Chronicle (38)
4. USA Today (35)
5. The Boston Globe (29)
7. The Philadelphia Inquirer (17)
8. The Denver Post (2)
9. Star Tribune (Minneapolis MN) (2)

The sample obtained from the Lexis-Nexis database was examined for suitability for the study, and 54 articles were excluded, among them such materials as TV programs or lists of Caribbean websites and travel agencies. Some of the excluded articles dealt with issues other than travel to Aruba or Caribbean islands, and their references to Aruba were considered as non-relevant for the study. Two examples of such non-relevant references are given below:
The Winfrees were married July 1 and were planning to leave tomorrow for an anniversary vacation in Aruba. Jason Winfrey had packed days early for the trip, and yesterday a large black duffel, along with a set of golf clubs his wife gave him for Father’s Day, was lying near the stairwell in their home. (“Wife, Police Seek Answers in Md. Teacher's Slaying.” The Washington Post, June, 26, 2005)

The roster of the Netherlands lists a similar contingent, including Mark Mulder, Shea Hillenbrand and Danny Haren. It also has players from Dutch islands, including Andruw Jones (Curacao) and Sidney Ponson (Aruba). (“U.S. Against the World: It Seems to Be a Fair Fight.” The New York Times, January 22, 2006)

One of the features of the Lexis-Nexis database is that it stores different editions of the same article of the same date from the same newspaper. It is why there were 12 duplicate cases in the original sample. Only one article was retained in each case.

Figure 4-1 Aruba sample: May 2004 – April 2006
Figure 4-1 shows two data series: the number of articles returned by the Lexis-Nexis database and the number of articles left in the sample after exclusion of irrelevant articles and duplicates, both series reported by month for the chosen two-year period. The final sample included 175 articles.

4.2. Categories and Units of Content

While the variety of topics which can be covered by general media with regard to a particular destination is virtually limitless, these topics can be sorted out into broader, more standardized categories which are defined based on the destination image theory and on the content of textual materials collected for any given DDII project. Textual materials are to be considered because the standard category set for a “sea, sand, and sun” destination like Aruba might differ in some respect from that of such destinations as France or China. In this study, the set of standardized categories for Aruba was developed using a combined approach: about 40% of the selected articles were first read in order to surmise the main topics about destination Aruba (Glaser & Strauss, 1969; Neuendorf, 2002), while the seminal studies by Echtner’s and Ritchie’s (1993) and Crompton (1979) provided the theoretical groundings for category formalization. As a result, the following twelve categories were identified for Aruba:

- **Disasters (DIS)** – High impact, low frequency events: hurricanes, tornados, tsunamis; political unrests; terrorist activity; epidemics, ecological catastrophes, etc.
- **Major Events (EV)** – Events at the destination that are not regular and can influence people to come: sporting events like international competitions, football championships, golf tournaments, poker world tours, music festivals, etc.
- **Safety and Crime (S&C)** – Issues related to tourists’ safety: crime rates, street pick-pocketing, publicized criminal cases, etc.
- **Infrastructure and Service (INF)** – References to hotels, restaurants, facilities for beach activities and sports, as well as to quality of service. Roads and transportation within the country also fall into this category.

- **Accessibility (ACC)** – News about how to reach the destination: new flights, cruise routes, visas, passports, departure taxes, etc.

- **Things to Do (TTD)** – Include things to do and to see at the destination: museums, excursions, shopping, nightlife, local festivals, etc.

- **Money (MON)** – Information about special deals, offers, VAT return, etc.

- **Tourism Issues (TOUR)** – News about efforts of the destination DMO to attract new categories of tourists (for example, seniors or honeymooners), tourism initiatives like sustainable development, information about destination ranking, etc. are coded into this category. Initiatives to influence tourism negatively by organizing boycotts, for example, are also classified into this category.

- **Socio-Economic Development (ECON)** – Include references to overall development of the destination, standards of living, cleanliness and hygiene, crowdedness of cities and/or beaches, food availability, etc.

- **Gossip (GOSS)** – This category includes cases of what happens at the destination with respect to famous/popular people.

- **Nature and Scenery (N&S)** – The category includes references to country’s landscape; climate; beauty; wildlife, natural and man-made landmarks, etc.

- **Cultural Heritage (CH)** – References to country’s history; traditions and culture; cuisine, arts and literature, local people, etc. fall into this category.

Before the coding procedure started, the sampling units, recording units, and context units were formally identified. A single article was a sampling unit. Recording unit was a theme, or reference, to Aruba, which was classified to one of the 12 pre-established categories. A context unit was three sentences: the sentence with the reference, the preceding one, and the following one. A single sentence could have contained themes from several different categories but no more than one reference to any
particular category. Finally, the unit of analysis was one month, meaning than all data were aggregated and reported in monthly units.

4.3. Category and Favorability Coding

Since the total number of articles was 175, the task of classifying the content of the articles into pre-specified categories “by hand,” without any content analysis software, was judged as manageable. All articles were read in full, sentence by sentence, and the references to Aruba and its features were assigned into respective categories as defined in section 4.2. In the articles about the Caribbean region, only references to Aruba were classified. In addition, only textual references from the article body were coded, thus, excluding graphics and titles to pictures. A single article could have had zero, one, or multiple references in each category. The article length ranged from 32 to 5,466 words, with the average length of 704 words. To account for this factor and to ensure that impacts of a single reference from two articles of different length differ, the number of references, which the article scored in a single category, was divided by the article’s length (Namenwirth, 1973; Neuendorf, 2002; Weber, 1990).

Simultaneously, each reference to Aruba was evaluated with regard to its “favorability” on a three-point scale: favorable (+1), unfavorable (-1), or neutral (0). Theoretical groundings of favorability analysis are given in section 2.6.2. To assess favorability, a desirability of an event for the destination was considered. For example, references to the collapse of the island’s most visited wonder, coral bridge (“100-foot-long coral bridge collapses into Aruban cove.” USA Today, Sept 9, 2005) were evaluated as unfavorable in the Nature and Scenery category. Similarly, all references to disappearance of Natalee Holloway, which were classified into Safety and Crime category, were evaluated as unfavorable on the grounds that crimes against tourists are damaging to the destination’s reputation. At the same time, when an article pointed out that crime rates in Aruba were much lower than in the U.S. and Netherlands, such references were classified as positive.
Table 4.1 Examples of favorability assessment

<table>
<thead>
<tr>
<th>Cat</th>
<th>Favorable</th>
<th>Unfavorable</th>
<th>Neutral</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIS</td>
<td>The islands that escaped all four monsters unscathed include…</td>
<td>Even though Hurricane Ivan did not hit the island head on, there were severe results of the tail end of the storm… (Message Center. WP, Sept 17, 2004)</td>
<td></td>
</tr>
<tr>
<td>EV</td>
<td>The island of Aruba… is hosting a world poker tournament… (Business add flair to event tables. The Houston Chronicle, Aug 26, 2004)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INF</td>
<td>Aruba is spending $34 million on airport improvements. (Aruba campaigns to buttress tourism. The Boston Globe, March 19, 2006)</td>
<td>People were without power, sewer systems and communications for days. (Message Center. WP, Sept 4, 2005)</td>
<td></td>
</tr>
<tr>
<td>ACC</td>
<td>...the airline plans four new routes in December… New York (LaGuardia) and Aruba… (NYT, Oct 23, 2005)</td>
<td>The following islands require only birth certificate and a valid driver's license or official picture ID: ...Aruba… (WP, Sept 25, 2005)</td>
<td></td>
</tr>
<tr>
<td>TTD</td>
<td>There's never a lack of things to do on Aruba… Snorkeling tours… Windsurfing. (Aruba: Caught in the winds of mystery. USA Today, Sept 30, 2005)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MON</td>
<td>...picking the perfect tropical getaway requires some comparison shopping… Keeping your criteria in mind, the CTO pinpointed… Aruba (Island Shopping, WP, Oct 30, 2005)</td>
<td>... a spokeswoman for the tourism authority, said... room prices rose dramatically… (Aruba Campaigns to buttress tourism. The Boston Globe, March 19, 2006)</td>
<td>Seasonal differences can be huge… you'll pay $185 per night at the Wyndham… Dec. 16-22. The following week, the price more than doubles… (A dozen ways to skimp in the sun, WP, Feb 26, 2006)</td>
</tr>
<tr>
<td>ECON</td>
<td>Residents of this prosperous and autonomous part of the Kingdom of the Netherlands…(Aruba: Caught in the winds of mystery. USA Today, Sept 30, 2005)</td>
<td>It took the ambulance more than half an hour to… drive us to the emergency room… two-day stay there was something out of the 18th century. (Message Center. WP, Sept 4, 2005)</td>
<td>Aruba by the numbers: Average per capita income: $22,000 Average literacy rate: 97% Unemployment rate: 7% (Aruba's postcard image comes under siege. USA Today, June 15, 2005)</td>
</tr>
<tr>
<td>N&amp;S</td>
<td>&quot;Aruba is the cleanest tropical destination I have ever been to…&quot; (Aruba: Caught in the winds of mystery. USA Today, Sept 30, 2005)</td>
<td>The island's most-visited wonder, a 25-foot-high natural bridge toppled… (100-foot-long coral bridge collapses into Aruban cove, USA Today, Sept 9, 2005)</td>
<td></td>
</tr>
<tr>
<td>CH</td>
<td>Aruba is known as a... tourist-friendly place... (The Boston Globe, March 19, 2006)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Another consideration was lexical terms in which destination attributes were referred to. When a paper mentioned friendliness of local people or great beach facilities in Aruba, or pleasantness of its climate, such references were coded as a favorable in respective categories. It was also considered whether newspapers reported something new with regard to Aruba; thus, references to opening new air routes to Aruba were coded as favorable in the Accessibility category, while information about passports and visas was coded as neutral. On the whole, references to Aruba’s infrastructure, accessibility of the destination for various groups of tourists, and activities available on the island were evaluated favorably or neutrally. Information about costs and deals was classified mostly as neutral, unless the author described the offer in elevated terms or emphasized savings. References from Nature & Scenery, Cultural Heritage, and Socio-Economic Development categories were classified as favorable or neutral in most cases. References in the category Tourism Issues were classified as favorable if they described DMO’s initiatives, e.g., of making the island more receptive to needs of senior tourists. However, references to boycott of travel to Aruba, initiated in some U.S. states, were classified as negative in the Tourism Issues category. Table 4.1 provides examples of favorable, unfavorable, and neutral references in each category, except Gossip, where all references but one were classified as neutral.

After classification process and favorability assessment were completed, each reference to Aruba divided by the article length was multiplied by “1” if the reference was judged favorable, by “-1” if the reference was considered unfavorable, and by “0” if it was classified as neutral. (Multiplication by zero, in fact, removed a reference from “active participation” in constructing the DDII.) Resulting values in each category were added up for every time period to form a category score C(t) (C(t), t=1, 2, …, 24) for each one of 24 months. Category scores show how news from a particular category is distributed over the chosen time period of two years. Category scores over the two-year period for all 12 categories are shown in Table 4.2.
4.4. Monthly Dynamics of News by Category

**Disasters (DIS) and Events (EV)** category scores are visualized in Figure 4-2. News about hurricanes in the Caribbean and their impact on the infrastructure of the islands and tourism sector of the region come in months of September and October and contribute to dips in the Disasters category score. While in 2004 the Caribbean islands had been hit severely by four hurricanes in a row, Aruba emerged relatively unscathed due to its geographical location off the coast of Venezuela. Therefore, there were just a few references to damaging effects of the hurricanes on Aruba infrastructure and tourism. Peaks in the Events category score are explained by news about Poker World Tour which came to Aruba in August 2004 and Carnival in January 2005.

**Safety and Crime (S&C)** category scores are reported in Figure 4-3. As can be seen from the figure, there were practically no negative references with regard to crime on the island before June 2005 (Natalee Holloway disappeared on May 30, 2005). In the sample, the average number of articles per month before June 2005 was 5.85. In June 2005, the number of articles was 25, and all of them were about the incident. Thirteen
articles had the word “Aruba” or “Aruban” in the headlines; these articles, generally, had more references in the Safe and Crime category; therefore, their overall impact was “heavier” on the final score. In months before the incident, only one article (“Ponson can’t pitch until court case in Aruba is settled.” *The Boston Globe*, March 8, 2005) had the word “Aruba” in the headline; the only three negative references for 8th period came from Ponson’s case which described a famous pitcher from Aruba who had allegedly punched an Aruban judge. News about the disappearance of the Alabama teen and reports about investigative progress with the case was coming regularly in the months following June 2005.

![Category score dynamics: Disasters (DIS) and Events (EV)](image)

**Figure 4-2** Category score dynamics: Disasters (DIS) and Events (EV)

**Infrastructure (INF) and Accessibility (ACC)** category scores are given in Figure 4-4. Peak in Infrastructure score dynamics in 13th period (May 2005) came from news about the highest rankings of several Aruba’s resorts, hotels, and casinos (e.g., “Destination: Caribbean; Best of the Caribbean” *The Houston Chronicle*, May 22, 2005). Peak in the 22nd period (February 2006) is due to the news about extensive investments to Aruba’s infrastructure: hotel renovations and openings, new park development, beach
makeover, and airport and cruise ship terminal expansions (e.g., “Aruba renews emphasis on tourism” *The New York Times*, Feb 19, 2006). The Accessibility category scores display minor fluctuations over the whole period; the highest score is in the 15th month (July 2005) due to the news about new air routes from the U.S. and Aruba’s initiative to accommodate disabled people (e.g., “Business travel” *USA Today*, July 22, 2005; “St. John’s looks at accessibility” *The New York Times*, July 17, 2005).

![Figure 4-3 Category score dynamics: Safety and Crime (S&C)](image)

**Things to Do (TTD), Money (MON), and Socio-Economic Development (ECON)** category scores are given in Figure 4-5. Information about activities available on Aruba appears regularly, and the fluctuations are not large considering the scale. Aruba is known for windsurfing, beach activities, golf, casinos, night life, and shopping. Information about savings and special offers also appears regularly and was mostly judged as neutral or positive. Occasional negative dips (e.g., 23rd period, March 2006) are due to references to price rises as a result of hotel closures for renovations. Positive references to Aruba’s prosperity, absence of intense poverty, and relatively high standards of living contributed to the rises in scores for the 13th, 22nd, and 23rd periods (e.g., “Aruba campaigns to buttress tourism” *The Boston Globe*, March 19, 2006).
Figure 4-4 Category score dynamics: Infrastructure (INF) and Accessibility (ACC)

Figure 4-5 Category score dynamics: Things to Do (TTD), Money (MON), and Socio-Economic Development (ECON)
Nature and Scenery (N&S) and Cultural Heritage (CH) category scores are shown in Figure 4-6. News in these two categories appears regularly and is mostly positive. The negative scores in the Nature and Scenery category for the 5th (September 2004) and 17th (September, 2005) periods were due to the news about beach erosion on Aruba because of hurricanes (“Grenada, Grand Cayman, Grand Bahama feel the pain” USA Today, Sept 17, 2004) and the collapse of Aruba’s natural wonder, coral bridge, also as a result of a hurricane (e.g., “100-foot-long coral bridge collapses into Aruban cove” USA Today, Sept 9, 2005).

![Figure 4-6 Category score dynamics: Nature and Scenery (N&S) and Cultural Heritage (CH)](image)

Tourism Issues (TOUR) and Gossip (GOSS) category score is shown in Figure 4-7. News about famous people in conjunction with Aruba was classified as neutral most of the time. The Tourism Issues category displays ups and downs. Large dip in the months following the disappearance of Natalee Holloway is due to the initiatives of several U.S. states to organize tourist boycott of Aruba. Peak in the 22nd period (February 2006) is due to the news about large-scale tourism projects started by the authorities (e.g., “Aruba renews emphasis on Tourism” The New York Times, Feb 19, 2006). Earlier peak
are made by references to high ratings that Aruba received as an all-around destination, initiatives of the Aruba Tourism to make Aruba more appealing to honeymooners, and successful efforts to promote the destination.

Figure 4-7 Category score dynamics: Tourism Issues (TOUR) and Gossip (GOSS)

4.5. DDII-Aruba

**Step 1: Combined monthly scores for every time period.** To construct the DDII-Aruba out of category scores for the two-year period, all category scores were summed up. The total period score was divided by a number of categories, i.e. 12:

$$ S_t = \frac{\sum_{j=1}^{12} C_t^j}{12}, \text{ where } C_t^j \text{ is a news score in category } j \text{ in month } t. $$

The division by the same number does not affect the comparative dynamics of scores; however, it makes easier to compare results from different DDII construction projects when removal or addition of the categories is required. If, for example, another content
analysis project requires a wider category set, the resulting DDII indices will be on the same scale. The combined monthly score $S_t$ is given in Figure 4-8.

**Step 2: Calculating visibility score.** It was noted that disappearance of Natalee Holloway increased the number of articles about Aruba in the U.S. press. Before this unfortunate event, the average number of articles per month was 5.846, which was considered as normal visibility for Aruba destination. The increase in coverage was interpreted as increase in visibility of a destination among potential travelers to Aruba. A measure of this visibility, the visibility score, was constructed for each month as the number of articles for the period divided by 5.846. Thus, period 3 (July 2004) and period 12 (April 2005), each having one article in the sample, received the lowest visibility score of 0.171, while the month of June 2005 received the highest score of 4.276. However, since all relevant articles for a particular period were included in the sample, the visibility score has been automatically incorporated into calculations: the more articles about Aruba appear in a particular period, the larger the combined monthly score $S_t$ for that period. Visibility score should be applied when equal numbers of articles per period are sampled. Therefore, the combined category score for each period was NOT multiplied by the corresponding visibility score in this particular project. It was also noted that articles that had the name of the destination in the headlines, generally, had more references to Aruba, and because of that input of such articles in the calculation of DDII-Aruba was “heavier.” That is why there was no coefficient which would reflect whether or not headlines contained words “Aruba” or “Aruban.”

**Step 3: Applying a “memory” feature.** As can be seen from Figure 4-8, the index displays significant changes around the $14^{th}$ period. These changes are due, in part, to the changing number of articles in connection with Natalee Holloway disappearance in June, 2005. In August 2005, the number of articles decreased from 25 to 9; however, the topic remained in the news for almost the whole year after the incident. Since images do not change at once (Gartner, 1993), it was hypothesized that images have “memory,” i.e. destination images that news evokes stay in the readers’ memory for some time. Thus, it was proposed that DDII for a certain month $(t)$ is a weighted average of the DDII$(t)$ for
this month, DDII(t-1) for the previous month with some coefficient k1, which is smaller than 1.0, DDII(t-2) from two months ago with even smaller coefficient k2, and so on.

Figure 4-8 Combined monthly scores: May 2004 – April 2006

Figure 4-9 DDII with the “memory” feature
Figure 4-9 shows graphs for the two DDIIIs with the “memory” feature: the one which goes two months back (k1=0.5 and k2=0.25) and the other – four months back (k1=0.8; k2=0.6; k3=0.4; k4=0.2). Coefficients in our examples are arbitrary. It can be seen that the image is getting smoother with the longer memory feature:

**Step 4: Transforming the DDII to a more convenient numerical range.** In the process of constructing the DDII, the following proposition was accepted: the image of a destination which seldom appears in the news cannot be estimated. Therefore, it was proposed that if the combined monthly score S(t) for a particular period is smaller than a certain, arbitrary chosen number, that score does not affect the image. To somehow rationalize that arbitrary number, the following reasoning was applied. Let us suggest that for a whole month there was only one reference to Aruba in the news sample. Its input in the monthly DDII score, on average, would be 1/704=0.00142, since the average article length is 704 words. If we divide this value by 12 (the number of categories for Aruba), we will obtain the value which is approximately 0.0001. Therefore, we can consider this and the smaller values as zeros, claiming that one reference or less does not count. With this in mind, the following transformation was applied to the combined monthly scores:

$$ DDII_t = \text{SIGN}(S_t) \times \text{MAX}(1, \text{ABS}(S_t) \times 10000) $$

where $S_t$ is a combined monthly score for period $t$.

By applying this transformation, the DDII values are brought to a more convenient numerical range: the absolute values of all $DDII_t$ scores became 1.0 or larger. The value $DDII_t = 1$ is obtained when the combined monthly score $S_t = 0.0001$ or smaller.

**Step 5: Logarithmic transformation of monthly scores.** The logarithmic transformation on the values obtained at Step 4 of the procedure was carried out:

$$ \log DDII_t = \text{SIGN}(DDII_t) \times \text{LOG}(\text{ABS}(DDII_t),10) $$

where $DDII_t$ are monthly DDII scores.
The logarithmic transformation has the following interpretation:

- The transformation returns positive values for positive $DDII_t$ (prevalence of positive news about the destination for a given period $t$) and negative values for negative $DDII_t$ (prevalence of unfavorable news). It should be noted that the log function is applied to absolute values of $DDII_t$, which are equal or greater than 1, which was ensured by Step 4 of the procedure. The SIGN transformation is applied to account for favorability of the news.

- The transformation returns zero values when $DDII_t = 1$, i.e. when the combined monthly score $S$ is 0.0001 or smaller (very few mentions about the destination during the period and/or few articles during the period.

- The base of 10 for the log transformation was chosen for easier interpretation and comparisons of different DDII values. Based on the properties of the logarithmic function, DDII value with $\log DDII = 2$, is 10 times greater than when $\log DDII = 1$, and 100 times greater when $\log DDII = 0$.

- According to our estimates, low-interest topics will have $\log DDII$ between -1 and 1, popular topics will have $\log DDII$ around -2 or 2, and extremely hot topics will have $\log DDII \sim 3$ or higher in absolute values. Thus, negative press about the disappearance of Natalee Holloway should be classified as a topic of moderate coverage. However, considering that before the incident DDII-Aruba was low, the surge in visibility is significant.

Figure 4-10 illustrates the log-transformed DDII with and without “memory” feature. Series with “no memory feature, two- and four months back memory feature are called ddi, ddi2, and ddi4, respectively.
Figure 4-10 Log-transformed DDII with and without “memory” feature

4.6. DDII-Aruba: Validation

The obtained DDII is based on publications in the ten largest U.S. newspapers containing references to Aruba as a travel destination for the period of May 2004 – April 2006. DDII-Aruba, as shown in Figure 4-10, clearly reflects the surge in negative media coverage of Aruba in connection with the disappearance of Natalee Holloway on May 30, 2005. There are indications from sources other than surveyed articles that arrivals to Aruba suffered in the 3rd and 4th quarters of year 2005 and even in the 1st quarter of year 2006:

“ARUBA – In the monthly bulletin of April that the Central Bank of Aruba (CBA) published recently is stated that in the first quarter of 2006, 14.7 percent less tourists visited Aruba than in 2005.

“CBA does not have recent figures on the amount of money the tourists have spent. The last figures that Aruba Tourism Authority (ATA) had published were in January of 2005. When CBA published her April bulletin, ATA didn’t have the figures on arriving tourists and the number of staying over tourists for February, March and April yet.
“The data in the financial bulletin of April came from the Immigration administration and the Central Bureau of Statistics (CBS). The Bank concluded that the number of tourists as well as the room occupancy in the hotels had dropped. The number of cruise tourists in April of 2006 had dropped with 12.9 percent compared to same month last year and 17.1 percent less cruise ships had called on the port of Aruba. The number of tourists that came to Aruba via air dropped with 14.7 percent. This percentage is the result of the difference between the first quarter of 2006 and the same period in 2005. The Bank indicated further that the average room occupancy in hotels dropped to 81.3 percent compared with April of 2005.”

“A number of factors… contributed to the decrease during the 3rd quarter 2005 remained active throughout the fourth quarter: …hurricanes… high price of oil… and the negative media publicity in the US regarding the Holloway case.”

“…fewer airline passengers to Aruba… Before hurricanes are used as an excuse, the rest of the Caribbean saw increases in travel. Remarkable increases in some cases… While Aruba continues to not report their tourism numbers for the second half of the year; for the month of November alone, Jamaica experienced an increase of 25.4%.


In constructing the DDII-Aruba, several arbitrary decisions were applied to the frequency data obtained in the coding process. Therefore, it was decided to validate the index using a simple regression model in order to see whether the DDII is a significant factor in explaining total arrivals to Aruba. Arrivals to Aruba were used as the dependent variable, and total arrivals to Bonaire and Curacao combined as the independent variable. Aruba, Bonaire, and Curacao are the three Caribbean islands which are known as the ABC islands. The islands are very similar in geographical location, as well as historical, political, and cultural heritage. They are situated very favorably, far from the hurricane belt in the Southern Caribbean and experience pleasant weather year-round. Aruba,
Bonaire, and Curacao belong to the Netherlands, and the level of economic development of the islands is also similar. The main markets for the ABC islands are the U.S., The Netherlands, and Venezuela. In 2007, American tourists accounted for 67%, 43%, and 15% of total arrivals to Aruba, Bonaire and Curacao respectively (as calculated from the data found at www.onecarribean.org). It was reasoned that the combined arrivals to Bonaire and Curacao would serve as an approximation of all economic and other factors which would normally be used in a traditional econometric model to explain arrivals to Aruba. If the DDII would come as a significant factor in explaining the total variance in the regression model, it would be an indication that the index reflects the perceptions of potential visitors about the Aruba destination, and that the negative news about disappearance of Natalee Holloway affected the actual arrivals to Aruba.

The data on arrivals to Aruba, Bonaire, and Curacao were collected from OneCaribbean.org, the official tourism business website of the Caribbean Tourism Organization (www.onecaribbean.org); they are measured in thousands of visitors. The arrival figures to Bonaire and Curacao were added up. Since the DDII-Aruba is a logarithmic transformation of the frequency data, it was decided to use a log-log model. Also, as follows from research by Croes and Vanegas (2004), log-log models perform slightly better than models in a non-log-transformed form for the Aruba data. The logarithmic transformation was applied to the Aruba arrivals (variable laruba) and combined arrivals to Bonaire and Curacao (variable lboncur). DDII series without memory (DDII series corresponding to variable ddi), with 2-months back memory (DDII2 series corresponding to variable ddi2) and with 4-months back memory (DDII4 series corresponding to variable ddi4) were lagged up to six periods. Each of the three unrestricted models was separately tested with the non-lagged and lagged DDII series. The DDII variables lagged two, three, and five periods came significant in each of the three models. It was noted that models which simultaneously included two DDII variables were also a greater improvement from the base model. Table 4.3 provides comparisons between the base model and three unrestricted models using the DDII, DDII2, and DDII4 series as independent variables.
## Table 4.3 Modeling arrivals to Aruba: Model comparisons

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<th>p-value</th>
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<td>15.75</td>
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<td>0.42/ 0.39</td>
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<td>0.256</td>
<td>15.75</td>
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<td>0.42/ 0.39</td>
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<td>0.174</td>
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<td>0.1612</td>
<td>2.90</td>
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* - lagged 3 months; ** - lagged 5 months

### 4.7. DDII-Aruba: Discussion of Results

In constructing the DDII-Aruba, several content analysis techniques have been considered and/or applied. The length of the article was used to decide on the “weight” of each reference in DDII. To account for changes in amount of media coverage in certain months, a visibility index has been defined as the number of articles per month divided by the average number of articles per month. However, the visibility index was not
applied, since all articles in the sample were coded and every single reference counted; thus, the more or less heavier media coverage had already been automatically incorporated in the index. A coefficient to account for whether the words “Aruba” or “Aruban” were used in headlines was also considered, but the idea was rejected. It was rationalized that while the articles with the words “Aruba” or “Aruban” in headlines were definitely more influential, their influence was automatically incorporated into the index, since such articles generally had more references to the Aruba destination, and their total contribution in the DDII was “heavier.” “Memory” feature was defined and incorporated into the DDII as well. Finally, several transformations were applied to the DDII monthly scores in order to bring the index to a more interpretable and comparable scale.

In this study, 12 standardized news categories were identified, and all references to Aruba contained in the articles were coded into them. There is a question with respect to these categories: Are news that belong to different categories equally important for the image? Doesn’t news from some categories, for example, Disasters or Safety and Crime, have more influence over the image? This question has very much in common with the question about importance of destination attributes. While there have been a number of studies within the domain of the destination image about importance of destination attributes (for example, see O’Leary & Deegan, 2005; Zang & Chow, 2004), a universal answer to the question has not been obtained. Such studies are often destination specific and therefore rank attributes in importance with regard to a particular destination. In the absence of clear methodological indications about importance of destination attributes, the constructed DDII does not differentiate between the categories in terms of “importance” of their individual input.

One of the research limitations was using only one researcher for the analysis. Thus, reliability of category coding, as well as favorability assessment, was not estimated. However, since the main objective of the Aruba study was to demonstrate the method itself rather than to obtain a reliable DDII-Aruba, such a “short-cut” in the investigation was accepted. Nevertheless, the reliability issue in constructing the DDII is a very important one. There are serious theoretical considerations, in general, regarding
favorability assessment in content analysis studies. Reliability, or inter-coder agreement, for “directional” content analysis (favorable-unfavorable is considered “directional”) is generally lower than for “standard” content analysis, e.g., when issues are classified into pre-specified categories (Lasswell et al., 1965). With this point in mind, two-point favorability scale (favorable-unfavorable) and three-point standard scale (favorable-neutral-unfavorable) need to be comparatively evaluated for the studies which involve construction of the DDII. Since neutral references do not add to the index, should the categories with most of the neutral references be excluded from the coding process altogether? As can be seen from Table 5.1, six out of 12 categories (Disasters, Events, Infrastructure, Things to Do, Nature and Scenery, and Cultural Heritage) did not have neutral references classified into them at all, while in the Gossip category all references except one were assessed as neutral. Or, can all neutral references be considered as favorable and added to a total category score? It can be argued than every reference to a destination, unless it is negative, reminds about that destination and, from this angle, is favorable. This question needs more investigation.

In the pilot study, the feasibility of the DDII was tested using regression analysis of the total arrivals to Aruba. Three models including the DDII-Aruba (no memory, 2-months back memory, and 4-months back memory) were compared to the base model which used combined arrivals to Bonaire and Curacao as a single predictor. Since the ABC islands share many geographical and socio-economic characteristics, it was reasoned that arrivals to the other two islands incorporate traditional econometric variables which would explain arrivals to Aruba. The results confirmed feasibility of the DDII: all three models with the DDII were significantly better than the base model in explaining total Aruba arrivals. The fact that the same result was obtained in each one of the models with the DDII reduced a probability that the validation result is due to chance. The fact that the input of DDII-Aruba in models with different DDII-Aruba lag structure was also significant strengthens the argument that the DDII is not only a feasible measure of how a destination is covered in general media in terms of the amount of material and its favorability but also that DDII affects decision-making behavior of potential tourists.
CHAPTER 5. DDII-RUSSIA: DEMONSTRATION STUDY

This study is to demonstrate how DDII can be constructed for an emerging destination and for a longer period of time. The emerging destination of Russia, the UK tourist market, and time period of 1992-2007 were chosen. Starting in the early 1990s and to date, Russia has undergone changes in the political, economic, and social spheres that have had a huge impact on Russian inbound tourism. While in the former Soviet Union international travelers had limited tourist options to choose from, today, numerous tourist companies offer exciting and diverse Russian tourism products. The openness of Russia as a travel destination and the rising quality of its tourism offer have been reflected in the growing numbers of tourist arrivals for the last fifteen years, despite some occasional annual fluctuations (Rosstat, 2006). However, income from international tourism is a small share of Russia’s overall economy. Russian tourism industry professionals state that while Russian outbound and internal tourism has been growing rapidly, inbound tourism is growing slowly, and that it has suffered from political instability, terrorist activity, lack of infrastructure, especially in country’s eastern areas, complicated visa procedures, rising prices for tour packages and lack of advertising.

Destination Russia is different from destination Aruba in many respects. Russia is a vast country with rich tourist resources of all kinds. They include unique natural features, beautiful landscapes, historical and cultural attractions, places of ethnographical interest, and good recreational opportunities. At the same time, the image of Russia, as a successor of the Soviet Union, has strong political undertones (Stepchenkova et al., 2007; Stepchenkova & Morrison, 2008). The role that Russia plays in the international relationships and the Russian influence on the world politics, result in high visibility of the country from economic, political, foreign affairs, and military perspectives. In Chapter 5, the DDII-Russia for the period of January 1992 – December 2007 is
constructed. This period was selected (1) to reflect the growing presence of Russia as a destination in the tourism world and (2) to test the DDII-Russia in the model of tourist arrivals from UK to Russia, where the data series for the arrivals and econometric variables spanned time period of 1993-2007.

5.1. Textual Population

The universe of all media sources where materials about Russia appear is enormous: the content about Russia is likely to be found in newspapers, journals and magazines, radio broadcasts, movies and documentaries, Internet blogs, etc., which makes listing of all members of such a population extremely difficult. In theory, the diversity of sources requires complicated stratification algorithms in order to fairly represent all strata (Krippendorff, 2004; Neuendorf, 2002); however, sorting the sources into strata is not at all straightforward. Furthermore, the decision to include material from various media sources in the sample requires large amount of time and resources. The relevance of the materials from various strata was also judged as not equally important for constructing DDII-Russia. Therefore, the researcher decided to proceed with a purposive sampling technique (see section 3.2) and reduce the wealth of all available materials to a more manageable size.

In this research, purposive sampling method was applied with two criteria in mind: qualitative and quantitative. Three most influential and widely distributed UK newspapers which focus on serious journalism – *The Times*, *The Guardian*, and *The Independent* – were chosen as sources of textual material for constructing the DDII-Russia on the UK tourist market. The Big Three are oriented to different social strata and are considered national newspapers, as contrasted with local newspapers serving a city or a region. It was posited that the rest of the papers largely follow their suit and observe generally the same topics as the Big Three. While there is little doubt that the chosen sources are the most prominent British newspapers, quantitatively, they are not the sources with the largest circulation, where the first place belongs to the national tabloid *The Sun* with 3,121,000 daily circulation figures, as of June 2008.
(en.wikipedia.org/wiki/The_Sun). However, according to the Audit Bureau of Circulation, each newspaper of the Big Three is included in the top ten British newspapers with the highest circulation. Other national newspapers – tabloids *The Sun* and *The Daily Mirror*, middle-market papers *The Daily Express* and *The Daily Mail*, and serious journalism newspaper *The Daily Telegraph* – were also considered for inclusion into the sample. However, neither of them had articles in the electronic LexisNexis Academic database (see section 5.2), which would span the whole time period of 1992-2007. The selected sources are briefly described below. The full source description as it appears in the LexisNexis Academic database for *The Times*, *The Guardian*, and *The Independent* is placed in Appendix A, Appendix B, and Appendix C, respectively.

**The Times.** Wikipedia (en.wikipedia.org/wiki/The_Times) provides the following description of the newspaper: “*The Times* is a daily national newspaper published in the United Kingdom since 1785 when it was known as The Daily Universal Register… Though traditionally a moderately centre-right newspaper and a supporter of the Conservatives, it supported the Labour party in the 2001 and 2005 general elections. In 2005… the voting intentions of its readership were 40% for the Conservative Party, 29% for the Liberal Democrats, 26% for Labour… The Times is the original "Times" newspaper, lending its name to many other papers around the world, such as The New York Times, The Times of India, and The Irish Times.” LexisNexis Academic describes the source as “*The Times of London* is perhaps the world's most famous daily newspaper and Britain's newspaper of record… It represents the conservative voice of a rising, prosperous English generation.” It is published daily, Monday – Saturday, and its certified circulation in November 2005 was 692,581 copies per day (UK Audited Bureau of Circulation, as sited by en.wikipedia.org/wiki/The_Times).

**The Guardian.** LexisNexis Academic describes *The Guardian* as “one of Britain's oldest newspapers with a well respected national and international reputation. In 1988, The Guardian was named Newspaper of the Year… and its staff have won numerous national and international awards…. Founded as the weekly Manchester Guardian in 1821… the paper has maintained a radical, left of centre editorial stance ever since…. 
The paper's 1921 mission statement... stated: "Its primary office is the gathering of news. At the peril of its soul it must see that the supply is not tainted. Neither in what it gives, nor in what it does not give, nor is the mode of presentation, must the unclouded face of truth suffer wrong. Comment is free, but facts are sacred.” It is published daily, Monday – Saturday, and its certified circulation is 355,750 copies as of August 2007 (UK Audited Bureau of Circulation, as sited by en.wikipedia.org/wiki/The_Guardian_Newspaper).

The Independent. According to LexisNexis Academic, “The Independent was launched in October 1986, and rapidly acquired a reputation for the quality and extent of its reporting, particularly in foreign affairs. In 1986 it received the British "Newspaper of the Year" award. "The Independent" has subsequently received many other awards, and currently has a circulation of over 410,000. The newspaper is owned by an independent company, and is not editorially or financially controlled by any other media organization. The Independent frequently publishes analytical articles written by well-known politicians and other public figures, as well as news reporting and commentary from its own journalists. There is an extended edition of the newspaper on Saturdays, which contains articles on subjects such as travel, property, antique collecting, food and drink and motoring.” It is published daily, Monday – Saturday.

5.2. Sample Selection

The source of the data was the LexisNexis Academic database. LexisNexis is a popular searchable archive of content from newspapers, magazines, legal documents and other printed sources which are often used for media research, as well as research in social sciences and business. According to the company (www.LexisNexis.com), typical customers of LexisNexis include lawyers, law students, journalists, and academics. LexisNexis is credited for being one of the world’s largest general news databases supplying a wide variety of media sources; only for the United Kingdom it lists 289 national and regional newspapers. However, not all sources span the same time period. For example, The Times, arguably, the most influential newspaper in the UK, is included
in the database starting July 1, 1985, while *The Sun*, a tabloid with the largest circulation among the UK newspapers, is included in the database on a regular basis starting from January 1, 2000. LexisNexis Academic has built-in language which allows selecting and sorting documents within sources; for instance, by headline, section, subject, or page.

Format and structure of the selected newspapers (*The Times*, *The Guardian*, and *The Independent*) differ (see Appendix A, Appendix B, and Appendix C). Newspapers also practice re-naming sections of the paper with time. In addition to classification by section, *The Guardian*, for example, classifies content by subject, country, and geographic region. Among various subjects there are “travel,” “destinations & attractions,” and “travel, hospitality, and tourism.” Because of this variability, the three selected newspapers were examined separately. To ensure relevance of the selected material to construction of the DDII-Russia, it was decided to start searching for the articles which have words “Russia,” “Moscow,” and “Petersburg” in headlines. Thus, the search for each paper for the period January 01, 1992 – December 31, 2007 started with the search string: “headlines(russia!) or headline(moscow!) or headline(petersburg!).” Symbol “!” means that articles that contain variants of the words in parentheses are also to be selected. The search resulted in more than 3000 articles for each selected source.

Next, the articles were examined by section for relevance: “when using relevance sampling, analysts proceed by actually examining the texts to be analyzed, even if only superficially, often in a multistage process” (Krippendorff, 2004:119). Materials from business, domestic news, sports, and international affairs sections were judged as having more relevance to the country image of Russia, rather than the DDII-Russia, and were excluded. Articles in the remaining sections had more emphasis on what happens in Russia, travel, culture, history, people-to-people relations, including personal stories and reports. However, it was decided that front page news are important to the image, because they often report extreme weather conditions, terrorist attacks, airlines crashes, infrastructure failures, political riots, etc. All these themes are directly related to perception of important destination attributes, among which are political stability, safety from harm, sanitary conditions, and level of infrastructure development (Crompton,
It was reasoned that if people are interested in Russia they might purposely look for travel-related sections; however, they will not escape the news from the front pages. Below are the final search strings for the three newspapers:

- **The Times**
  - **Travel:** ((headline(russia!) or headline(moscow!) or headline(petersburg!)) and (section(features) or section(travel)))
  - **Travel and Front Page News:** ((headline(russia!) or headline(moscow!) or headline(petersburg!)) and (section(pg. 1) or section(features) or section(travel)))

- **The Guardian**
  - **Travel:** (headline(russia!) or headline(moscow!) or headline(petersburg!) and (section(travel!) or subject(travel!) or section(features!)) and not section(foreign) and not section(international)
  - **Travel and Front Page News:** ((headline(russia!) or headline(moscow!) or headline(petersburg!)) and (section(Pg. 1))) or ((headline(russia!) or headline(moscow!) or headline(petersburg!)) and (section(travel!) or subject(travel!) or section(features!)) and not section(foreign) and not section(international))

- **The Independent**
  - **Travel:** ((headline(russia!) or headline(moscow!) or headline(petersburg!)) and (section(feature!) or subject(travel!) or section(travel!))
  - **Travel and Front Page News:** ((headline(russia!) or headline(moscow!) or headline(petersburg!)) and (section(feature!) or subject(travel!) or section(travel!) or section(title) or section(pg. 1))
5.2.1. Sample description

The search has resulted in 2,493 articles. In order to make further work with the selected articles more convenient, they were organized in an Excel file by the following fields: source, year, month, date, day of the week, title, newspaper section, length (in number of words), and text body. The LexisNexis Academic database sometimes includes duplicates of the articles. Two selected articles were considered complete duplicates if all their above-mentioned fields were the same. Thus, complete duplicates from The Times (11), The Guardian (17), and The Independent (25) were excluded from analysis. The final sample contained 2,439 articles: 921 from The Times, 910 from The Guardian, and 608 from The Independent. It was noted that year the database somehow lacks articles from The Independent for the year 2007. Another concern was that the selected articles contained very few Sunday issues. The Big Three are not published on Sundays; however, they all have associated Sunday publications – The Sunday Times (The Times), The Observer (The Guardian), and The Independent on Sunday (The Independent). All these newspapers are available in LexisNexis database for the chosen period with the exception of The Observer, which is available starting the year of 1993. The inclusion of these publications was considered, and rejected on the grounds that these are separate publications which require separate subscriptions. If, for example, a person subscribe to The Times, it does not mean that he has an access to The Sunday Times, either. Figure 5-1 shows yearly distributions of the articles by source.

Monthly distribution of all collected articles is given in Figure 5-2. It shows four clear peaks – October 1993, December 1993, August 1998, and October 2002. In the BBC version of the modern Russia’s timeline, the events which happened in these months are described as follows:

“October 1993 – Yeltsin orders the army attack on parliament, which is recaptured following a bloody battle. In December Russians approve a new constitution which gives the president sweeping powers. Communists and ultranationalists make large gains in elections to the new legislature, the State Duma, which replaces the former parliament, the Supreme Soviet.”

“October 2002 – Chechen rebels seize a Moscow theatre and hold about 800 people hostage. Most of the rebels and around 120 hostages are killed when Russian forces storm the building.”

Source: http://news.bbc.co.uk/2/hi/europe/country_profiles/1113655.stm

Finally, the collected articles were aggregated by quarter; quarterly distribution is shown in Figure 5-3.

Figure 5-1 Collected articles, by source and by year
5.2.2. Selecting a random sub-sample of articles

Since the number of articles in the sample (2,439) is large, it was decided to take a random sub-sample of articles from each quarterly period for coding and then extend the coding results on the whole period. The randomization procedure was defined as follows:
Using a function in Excel program, a unique random number between 0 and 1 was assigned to each article which has been represented by a row in the table that contained 2,439 rows. The rows in the table were sorted by this random number from low to high; then each row was assigned a consequent number N which ranged from 1 to 2,439.

Each row was assigned a randomized index (RI) by using the following formula: $RI=(Q+(Y-Y0)*4)*10,000 + N$, where

- $Y$ - the year, values from 1992 to 2007
- $Y0$ - the initial year 1992
- $Q$ - quarter of the year, values 1, 2, 3, and 4
- $Y-Y0$ ranges from 0 (year 1992) to 15 (year 2007).

The value in the parentheses ranges from 1 to 64: these are quarters consequently numerated. When every quarter value is multiplied by 10,000, numbers from 10,000 to 640,000 are obtained. Then, no matter what N is, all articles from the first quarter will go on the top of the table, being, at the same time, randomly sorted within this quarter. Their RIs can theoretically take values from 10,001 to 42,439. For the articles from the second quarter, the RIs will take values from 50,001 to 52,439. By the same reasoning, articles from the last 64th quarter will get RIs from 640,001 to 642,439.

The table was sorted by RI, from low to high. Thus, articles within each time period were randomly sorted; however, quarters were ordered from 1 to 64. To sample M articles from each time period, M consequent rows should be selected from each quarter using this re-sorted table.

5.3. Categories and Units of Content

Before coding a randomly selected subset of articles about Russia, a set of categories had been developed based on destination image theory (Crompton, 1979; Echtner & Ritchie, 1991, 1993), previous research on Russian destination image, and content of collected textual material. Stepchenkova and Morrison (2006) investigated
Russian induced destination image by studying websites of Russian and US travel agents offering trips to Russia. Description of Russia as a travel destination included the following image components: Culture and History, Nature Parks, Siberia and Baikal, Cruise Tours, Moscow, St. Petersburg, Country and State, Solovki, Kamchatka, and Hunting. These image components, or themes, were defined by factor analysis of a frequency matrix of the most frequent words used to describe destination Russia. Stepchenkova and Morrison (2008) in an online survey measured Russia’s destination image among US pleasure travelers and identified the following themes/factors: Traditional Tourism, Infrastructure, Niche Tourism, Safety, History, Food and Culture, Service, and Adventure. Stepchenkova et al. (2007) investigated organic Russian images in US general media for a period of 2002-2004 and found the following broad themes in Russia-related articles:

- Internal Affairs – covered topics related to Russian political life and, especially, 2004 presidential elections;
- Foreign Policy – covered themes related to the country’s relationships with Iraq, Iran, and NATO, as well as topic concerning Russia-China relations and Soviet past;
- Economy – covered issues related to Russian natural monopolies and power sector reform;
- Human Rights – included issues related to the selective use of the Russian law, e.g., the Khodorkovski’s case, and situation with human rights, particularly, in Chechnya;
- Safety – covered topics related to war in Chechnya and acts of terrorism on the territory of the Russian Federation; and
- Exchange – covered a host of issues related to co-operation between US and Russia, e.g., adoption of Russian children, space-cooperation, educational exchange, sports, etc.

Preliminary analysis of about 10% (~240 articles) of the textual material was conducted, and seven categories of Russian destination image in the UK general media
were determined taken into account this analysis, previous studies, and destination image theory: Culture & History, Economic Development, Social Issues, Internal Affairs, Foreign Affairs, Safety, and Tourism. Each of these categories is described in more detail below. As the analysis of these 240 articles proceeded, the initially pre-specified categories were refined and their contents detailed.

**Culture & History (CULT).** This category consists of three sub-categories: Arts, History, and Customs, and each sub-category, in turn, include articles with several major themes, as can be seen from Table 5.1. Articles from the CULT category are often written in the form of reports from UK correspondents in Russia, description of new books about Russia, exhibition and performance announcements, and obituaries of famous people closely connected with Russia or of Russian descent. These articles are often placed in the History and Arts sections of *The Guardian*, the Arts Reviews section of *The Independent*, and the Feature section of *The Times*. An article was coded into the CULT category based on the section of the article, its headline, and, if these two were inconclusive, on the first 5-10 sentences of the article. Words like arts, culture, history, ballet, orchestra, soviet past, etc. served as indicators of the category.

**Economic Development (ECON).** This category consists of four sub-categories: Yeltsin’s Reforms, Financial, Industry, and Purchase Power. The Yeltsin’s Reforms sub-category includes articles about economic reforms conducted by The Yeltsin’s government in the early 1990s. Financial sub-category primarily contains news about Russia’s investment climate and financial crisis of August 1998. The Industry sub-category includes articles about Russian natural monopolies and industry development (e.g., car industry, high-tech companies). News about opening new companies in Russia, joint ventures, mergers and acquisitions were also included into this sub-category. Finally, the Purchase Power sub-category contains news about growing purchase power of Russian people, including developing middle class and oligarchs. Examples of articles from the ECON category can be seen in Table 5.2.
Table 5.1 Examples of articles coded into Culture & History category

<table>
<thead>
<tr>
<th>Main Topics</th>
<th>Article's Title</th>
<th>Source</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTS</td>
<td>CLASSICAL: A RUSSIAN SPECTACULAR</td>
<td>Ind</td>
<td>11/10/2005</td>
</tr>
<tr>
<td>Music</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ballet</td>
<td>IN GIANTS FOOTSTEPS; After years of neglect, Russia's best ballet…</td>
<td>Guard</td>
<td>7/9/1997</td>
</tr>
<tr>
<td>Films</td>
<td>FROM RUSSIA WITH HELP; There's healthy batch of Russian films…</td>
<td>Guard</td>
<td>5/8/1992</td>
</tr>
<tr>
<td>Famous artists</td>
<td>VIVID VIRTUOSO OF THE RUSSIAN BALLET; Obituary: Vakhtang…</td>
<td>Guard</td>
<td>4/14/1992</td>
</tr>
<tr>
<td>Literature</td>
<td>A poet's novel Russian blend</td>
<td>Times</td>
<td>1/4/1996</td>
</tr>
<tr>
<td>HISTORY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soviet Past</td>
<td>Why did so many ordinary Russian soldiers, having fought their…</td>
<td>Times</td>
<td>5/9/2002</td>
</tr>
<tr>
<td>WWII</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cold War</td>
<td>On the brink: Forty years ago, Russian nuclear missiles in Cuba were…</td>
<td>Guard</td>
<td>10/22/2002</td>
</tr>
<tr>
<td>Space race</td>
<td>THE DREAM THAT FELL TO EARTH; ALMOST 40 YEARS SINCE…</td>
<td>Ind</td>
<td>3/23/2001</td>
</tr>
<tr>
<td>KGB</td>
<td>Russia's spy revenge</td>
<td>Times</td>
<td>2/20/2001</td>
</tr>
<tr>
<td>Spies</td>
<td>The spy who loved me; Kim Philby, Britain's notorious KGB mole…</td>
<td>Ind</td>
<td>7/15/1994</td>
</tr>
<tr>
<td>Russia’s Imperial Past</td>
<td>Shooting tsars; When they weren't oppressing the peasantry…</td>
<td>Guard</td>
<td>8/4/1998</td>
</tr>
<tr>
<td>WWII</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Last Romanovs</td>
<td>The Emperor of Russia and the King of Prussia</td>
<td>Times</td>
<td>6/11/1997</td>
</tr>
<tr>
<td>Russian Tsars</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caterine the Great</td>
<td>From Russia with love, lust and licentiousness</td>
<td>Times</td>
<td>11/21/2000</td>
</tr>
<tr>
<td>Gorbachev's Era</td>
<td>THE GORBACHEV ERA: ON THE TRAIL WITH RUSSIA'S…</td>
<td>Guard</td>
<td>3/8/1995</td>
</tr>
<tr>
<td>Gorbachev</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CUSTOMS &amp; TRADITIONS</td>
<td>A RUSSIAN NEW YEAR:</td>
<td>Ind</td>
<td>1/4/2003</td>
</tr>
<tr>
<td>Holidays</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Red Square parade</td>
<td>Russian military cadets parade in Red Square</td>
<td>Times</td>
<td>5/10/2007</td>
</tr>
<tr>
<td>Swimming in winter</td>
<td>A Russian winter swimming enthusiast</td>
<td>Times</td>
<td>1/5/2005</td>
</tr>
<tr>
<td>Russian banya</td>
<td>From Richard Beeston in Moscow</td>
<td>Times</td>
<td>2/14/1998</td>
</tr>
<tr>
<td>Caviar and vodka</td>
<td>BOOKS: COMRADE VODKA</td>
<td>Guard</td>
<td>1/23/97</td>
</tr>
<tr>
<td>Russian soul</td>
<td>BOOKS: ENJOYING THE FREEDOM TO FORGET</td>
<td>Ind</td>
<td>3/19/2004</td>
</tr>
</tbody>
</table>

**Social Issues (SOC).** This category consists of three sub-categories: Westernization, Transformation, and Social Problems. The sub-category Westernization includes articles about increased openness in Russia, friendliness towards the West, acceptance of Western culture, etc. The sub-category Transformation contains news about hardships that Russian people endured during the reformation period and social changes that happened within the society. The articles from this category often tell about these changes through an experience of a particular person or family. The sub-category Social Problems includes reports about such social ills as prostitution, homeless people, or treatment of gay people. Reports on media issues and freedom of speech are also coded in this sub-category. It also includes news on women’s issues, religion, education, health care, or sports. Examples of articles coded into the SOC category are in Table 5.3.
Table 5.2 Examples of articles coded into Economic Development category

<table>
<thead>
<tr>
<th>Main Topics</th>
<th>Article's Title</th>
<th>Source</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yeltsin's reforms</td>
<td>Reformer appointed to be Russia's PM</td>
<td>Ind</td>
<td>6/16/1992</td>
</tr>
<tr>
<td></td>
<td>The West is astonished by the rate of Russia's privatisation</td>
<td>Guard</td>
<td>4/29/1994</td>
</tr>
<tr>
<td>Financial</td>
<td>Funds 'wasted' in Russian chaos</td>
<td>Times</td>
<td>8/24/1998</td>
</tr>
<tr>
<td></td>
<td>Funds look to Russia, with love</td>
<td>Times</td>
<td>8/17/1996</td>
</tr>
<tr>
<td>Industry</td>
<td>Russian Aviation Night</td>
<td>Times</td>
<td>2/5/2005</td>
</tr>
<tr>
<td></td>
<td>Inside story: My life on Mir: As the Russian space station Mir</td>
<td>Guard</td>
<td>3/14/2001</td>
</tr>
<tr>
<td>Purchase Power</td>
<td>The Russians are coming</td>
<td>Times</td>
<td>5/24/1996</td>
</tr>
<tr>
<td></td>
<td>Holidaymakers from Moscow lapping up British seaside culture</td>
<td>Ind</td>
<td>7/28/1995</td>
</tr>
</tbody>
</table>

**Internal Affairs (IA).** This category consists of three sub-categories: Political Life, Human Rights, and Chechnya. The Political Life sub-category is the largest one and contains articles about Russian prominent political figures, presidential and parliamentary elections, Communist and other political parties, current political situation in Russia, etc. The sub-category Human Rights addresses issues of selective use of law, especially with regard to the case of the Russian oil company Yukos. News covering the relationships of the Federal Government and the Chechen Republic, as well as the military conflict in Chechnya is classified into the sub-category Chechnya. For examples, see Table 5.4.

Table 5.3 Examples of articles coded into Social Issues category

<table>
<thead>
<tr>
<th>Topics</th>
<th>Article's Title</th>
<th>Source</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Westernization</td>
<td>HUBBA! HUBBA! HOW SCOTLAND'S OTHER NATIONAL DRINK…</td>
<td>Ind</td>
<td>1/26/2000</td>
</tr>
<tr>
<td></td>
<td>MBA SUPPLEMENT: TURNING THE RUSSIANS ON TO CAPITALISM</td>
<td>Ind</td>
<td>5/10/2001</td>
</tr>
<tr>
<td></td>
<td>Hungarian with a passion for art brings the BBC to Russia</td>
<td>Times</td>
<td>10/24/2003</td>
</tr>
<tr>
<td>Transformation</td>
<td>MAYHEM AT THE MARKET; In St Petersburg you can buy almost…</td>
<td>Guard</td>
<td>10/23/1992</td>
</tr>
<tr>
<td></td>
<td>Russians care more about the economy than Nato's future</td>
<td>Guard</td>
<td>3/28/1997</td>
</tr>
<tr>
<td>Social Problems</td>
<td>Demographics</td>
<td>Times</td>
<td>6/10/1993</td>
</tr>
<tr>
<td></td>
<td>Homeless</td>
<td>Guard</td>
<td>3/4/1993</td>
</tr>
<tr>
<td></td>
<td>Prostitution</td>
<td>Guard</td>
<td>9/11/1995</td>
</tr>
<tr>
<td></td>
<td>Corruption</td>
<td>Times</td>
<td>10/28/2006</td>
</tr>
<tr>
<td></td>
<td>Education</td>
<td>Times</td>
<td>11/10/1999</td>
</tr>
<tr>
<td></td>
<td>Religion</td>
<td>Times</td>
<td>1/11/2000</td>
</tr>
<tr>
<td></td>
<td>Health care</td>
<td>Ind</td>
<td>2/8/2002</td>
</tr>
<tr>
<td></td>
<td>Legal system</td>
<td>Times</td>
<td>9/14/2004</td>
</tr>
<tr>
<td></td>
<td>Sports</td>
<td>Times</td>
<td>12/20/2007</td>
</tr>
<tr>
<td></td>
<td>Nationalism</td>
<td>Guard</td>
<td>9/10/2007</td>
</tr>
<tr>
<td></td>
<td>Gay issues</td>
<td>Guard</td>
<td>6/1/2007</td>
</tr>
</tbody>
</table>
External Affairs (IA)

Table 5.4 Examples of articles coded into Internal Affairs category

<table>
<thead>
<tr>
<th>Topics</th>
<th>Article's Title</th>
<th>Source</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political Life</td>
<td>Russian Congress fails to impeach Yeltsin</td>
<td>Ind</td>
<td>3/27/1993</td>
</tr>
<tr>
<td></td>
<td>Gallupping to the rescue of Boris; Advertising is as essential for...</td>
<td>Guard</td>
<td>4/27/1993</td>
</tr>
<tr>
<td>Human Rights</td>
<td>Putin is the strongman that the Russians need</td>
<td>Times</td>
<td>6/24/2003</td>
</tr>
<tr>
<td>Chechnya</td>
<td>Russia's oil wealth and rule of law</td>
<td>Times</td>
<td>11/5/2003</td>
</tr>
<tr>
<td></td>
<td>Yeltsin's 'victory in a day' turns into a savage struggle as Chechens...</td>
<td>Ind</td>
<td>1/16/1996</td>
</tr>
<tr>
<td></td>
<td>When the Russians come to us, we, the Chechens, will go...</td>
<td>Guard</td>
<td>12/3/1994</td>
</tr>
</tbody>
</table>

Foreign Affairs (FA)

This category consists of four sub-categories. The Foreign Relations sub-category includes such major themes as relationships between Russia and former Soviet republics (e.g., Ukraine), other sovereign nations (e.g., USA or France), international alliances (e.g., NATO) and organizations (e.g., UN). The International Conflicts sub-category of articles deals with news about conflicts on the territory of the former Yugoslavia (e.g., Serbia and Kosovo), in Iraq and Chechnya. News about military conflict in Chechnya often falls into the Internal Affairs category; however, it is sometimes covered through the prism of international politics. The relationships with UK were classified as a separate sub-category UK; it covered news about visits of the British queen and prime minister to Russia, as well as cooperation and tensions between the two countries. The last sub-category, Military Threat, includes issues about Russian military might, situation with its missile arsenal, nuclear capabilities, etc. See Table 5.5.

Table 5.5 Examples of articles coded into Foreign Affairs category

<table>
<thead>
<tr>
<th>Topics</th>
<th>Article's Title</th>
<th>Source</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign relations</td>
<td>BATTLE FOR SOVIET NAVY; Commonwealth split feared as...</td>
<td>Guard</td>
<td>1/10/1992</td>
</tr>
<tr>
<td></td>
<td>THEY MET IN MOSCOW; A new twist to the eternal triangle</td>
<td>Guard</td>
<td>4/26/1997</td>
</tr>
<tr>
<td></td>
<td>Russia's Wounded Pride</td>
<td>Times</td>
<td>3/24/1997</td>
</tr>
<tr>
<td>Int. Conflicts</td>
<td>How the Russians stole a march on the West to give 'peace' to Sarajevo;</td>
<td>Ind</td>
<td>2/19/1994</td>
</tr>
<tr>
<td></td>
<td>SADDAH FEELS STRAIN AS UK AND RUSSIA TURN UP HEAT PRESSURE</td>
<td>Ind</td>
<td>1/29/2003</td>
</tr>
<tr>
<td>UK</td>
<td>MINISTERS EASE BACK ON BASICS; Scandal shadows PM's Moscow trip</td>
<td>Guard</td>
<td>2/14/1994</td>
</tr>
<tr>
<td>Military Threat</td>
<td>Future Russian military threat</td>
<td>Times</td>
<td>12/15/1994</td>
</tr>
</tbody>
</table>

Safety (SAFE)

This category consists of four sub-categories. Sub-category Crime includes criminal statistics, news about criminal situation in Russia, and high
profile murders. Occasional news about flu epidemics were also classified into this sub-category. Sub-category Unrests includes news about wide-spread protests, both politically and non-politically motivated, street violence, etc. Sub-category Negative Events includes articles dealing with highly publicized disasters like, for example, sinking of submarine “Kursk” or fire on the Moscow TV tower Ostankino in August 2000. The largest sub-category in the SAFE category deals with instances of terrorism, see Table 5.6. Articles from the SAFE category are often placed on the front pages of the selected newspapers.

Table 5.6 Examples of articles coded into Safety category

<table>
<thead>
<tr>
<th>Main Topics</th>
<th>Article’s Title</th>
<th>Source</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crime</td>
<td>Departures: Russian crime</td>
<td>Ind</td>
<td>7/24/1993</td>
</tr>
<tr>
<td></td>
<td>The radioactive spy: Discovery of polonium 210 sparks public health scare...</td>
<td>Guard</td>
<td>11/26/2006</td>
</tr>
<tr>
<td>Unrests</td>
<td>Russia's political battles spread to the streets</td>
<td>Ind</td>
<td>9/29/1993</td>
</tr>
<tr>
<td></td>
<td>Mayhem in Moscow</td>
<td>Times</td>
<td>10/4/1993</td>
</tr>
<tr>
<td>Negative events</td>
<td>RUSSIAN SUBS 'RISKED MELTDOWN'</td>
<td>Guard</td>
<td>9/23/1995</td>
</tr>
<tr>
<td></td>
<td>Russia launches mission to save sub</td>
<td>Guard</td>
<td>8/16/2000</td>
</tr>
<tr>
<td>Terrorism</td>
<td>Kidnapping Westerners has exploded into a multi-million-dollar business...</td>
<td>Ind</td>
<td>12/12/1997</td>
</tr>
<tr>
<td></td>
<td>Russia's dangerous games</td>
<td>Times</td>
<td>9/16/1999</td>
</tr>
<tr>
<td></td>
<td>RUSSIANS ADMIT 115 HOSTAGES WERE KILLED BY GAS POISONING</td>
<td>Ind</td>
<td>10/28/2002</td>
</tr>
<tr>
<td></td>
<td>Chechen motives for Moscow siege</td>
<td>Times</td>
<td>10/29/2002</td>
</tr>
<tr>
<td></td>
<td>Beslan is Russia's 9/11: it will change the world</td>
<td>Times</td>
<td>9/6/2004</td>
</tr>
</tbody>
</table>

Tourism (TOUR). This category contains articles about Russia as a travel destination, published travel offers, and tourism-related news. These materials are often placed in the Travel section of The Guardian, the Travel Update section of The Independent, and the Features section of The Times. The variety of topics includes descriptions of Moscow and St. Petersburg, as well as other old historical cities, natural zones like Siberia and Far East, architectural and natural attractions, infrastructure, etc. Articles from the TOUR category covered such aspects of destination image as: Cities, Natural Resources & Wildlife, Accessibility, Packages, Cruises, Airlines& Airports, Transportation, Hotels, Cuisine, and Joint Travel. The examples of articles from these sub-categories are given in Table 5.7.
Not Relevant (NR). In fact, there was one more category, which was named Not Relevant (NR). There were articles containing words like “Russia,” or “Russian” in headlines but which were not relevant to the study. For example, both relevant and irrelevant articles could have used the word combination “Russian roulette” in the headline. Therefore, in the coding process the researcher had to assess any single article for relevance to the study.

It should be made clear that sometimes it was difficult to classify an article into a single category: some articles touched upon issues which could have been considered as belonging to several categories, for example, Social Issues, Economic Development, and Internal Affairs. To improve consistency of classification and inter-rater reliability of coding, the guidelines were written to assist with this process. Formal units of content were also identified. The sampling unit coincided with the recoding unit, which was a single article. Classification of the articles into a certain category was based on the context unit, which in this case was the headline or, if inconclusive, on the first paragraph (5-10 sentences) of the text.

Table 5.7 Examples of articles coded into Tourism category

<table>
<thead>
<tr>
<th>Topics</th>
<th>Article's Title</th>
<th>Source</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cities</td>
<td>Travel: St Petersburg: Five things to see</td>
<td>Guard</td>
<td>6/30/2001</td>
</tr>
<tr>
<td>Natural resources</td>
<td>Travel: Russia: Ice breaker: Where's the fun in glum Moscow?</td>
<td>Guard</td>
<td>1/22/2005</td>
</tr>
<tr>
<td>Wildlife</td>
<td>DESTINATION OF THE WEEK: RUSSIA'S FAR EAST</td>
<td>Ind</td>
<td>7/24/2004</td>
</tr>
<tr>
<td>Accessibility</td>
<td>Endangered tigers in eastern Russia</td>
<td>Times</td>
<td>6/22/1995</td>
</tr>
<tr>
<td>Packages</td>
<td>Travel Update: Russian bargain</td>
<td>Ind</td>
<td>7/25/1992</td>
</tr>
<tr>
<td>Cruises</td>
<td>ALL ABOARD FOR RUSSIAN EXPERIENCE; THE BEST DEALS...</td>
<td>Ind</td>
<td>6/26/2004</td>
</tr>
<tr>
<td>Airlines</td>
<td>RUSSIA'S LUXURY ARCTIC TOURS RISK NUCLEAR DISASTER</td>
<td>Ind</td>
<td>6/26/2004</td>
</tr>
<tr>
<td>Transportation</td>
<td>US fear of flying Russian airlines</td>
<td>Ind</td>
<td>7/22/1994</td>
</tr>
<tr>
<td>Hotels</td>
<td>Russian airline wins US praise</td>
<td>Times</td>
<td>9/1/1994</td>
</tr>
<tr>
<td>Cuisine</td>
<td>Russian answer to road congestion</td>
<td>Times</td>
<td>8/7/2002</td>
</tr>
<tr>
<td>Joint Travel</td>
<td>Travel: Old Russia, new hotel</td>
<td>Guard</td>
<td>3/4/2006</td>
</tr>
<tr>
<td></td>
<td>From Moscow, it was food paradise</td>
<td>Times</td>
<td>6/6/2005</td>
</tr>
<tr>
<td></td>
<td>WINTER TRAVEL: FROM HELSINKI TO ST PETERSBURG...</td>
<td>Ind</td>
<td>10/13/2001</td>
</tr>
</tbody>
</table>
5.4. **Category and Favorability Coding**

In this study, a single article was selected as a recoding unit for both category and favorability coding. The choice of the recoding unit was dictated by the extremely large amount of textual data as well as by a very wide range of topics in the articles about Russia. It was reasoned that the potential for errors in coding the articles sentence by sentence, as was done in the DDII-Aruba study, is greater than in a more holistic approach of coding by the whole article due to the researchers’ fatigue. Moreover, to classify a single sentence into one of the selected categories sometimes entailed more difficulty than classifying the whole article. Often newspaper sections or headlines served as indicators as to in what category to place and article. Sentence by sentence coding in such instances involves more time and effort with questionable result. Due to the nature of the text, there were cases when a single article could have been classified into several categories, for example, Economic Development and Social Issues or Internal Affairs and Foreign Affairs. It especially often happened with the long articles which touched upon several topics when reporting news from Russia. In these cases, the researcher had to decide what the dominating topic was in order to code the article. It should be noted, however, that for the DDII-Russia, category coding is less important than coding for favorability. The DDII-Russia is a combined measure of favorability values in each of the category. As long as the categories have equal weights in making the index, the favorability coding is the only one that matter. At the same time, category coding was viewed as an important step for understanding the data and reliable favorability assessment; therefore, category coding was conducted with the same rigor as the favorability assessment.

In order to improve consistency and reliability of coding, guidelines for assessing favorability of articles were developed in this study. It was decided to assign to each article one of three “favorability” values based on whether the coverage of a topic in the article was mostly negative (-1), neutral (0), or positive (+1), see section 2.6. To reduce subjectivity, certain subcategories were assigned a constant favorability value. For example, articles from category CULT were always coded as +1, unless they were from the sub-category Soviet Past; it that case they were coded as -1. The decision to proceed
with the pre-determined favorability coding for the CULT category was justified by the fact that in the sub-category Arts, for example, there were just two articles that discussed managerial and financial problems in the famous Bolshoi Theater; however, together with reporting problems that the theater was facing there was a great deal of information about its contribution to world culture. With regard to the Soviet Past sub-category, decision to assign -1 favorability value to all article where this topic was prevailing was based on previous research by Stepchenkova and Morrison (2008) which indicated that among potential US travelers to Russia the country’s Soviet past was a negative factor in an overall image perception.

In the same manner, news from the SAFE category was coded as -1 in all instances. Because, despite the fact that news about incidents of terrorism or other negative events have often compassionate coverage and display empathic attitude to the victims of the tragedy, the tourism industry is hurt by such events in general. Materials from the category TOUR were coded as either +1 or -1. It was reasoned that as long as news were not clearly unfavorable, travel-related materials increased visibility of Russia as a destination. In category SOC, the Westernization sub-category was always positively coded, since it signified the openness of the emerging Russian society; at the same time, the Transformation sub-category was classified as negative in all instances because it was reasoned that deep and simultaneous social changes in all spheres of life indicated instability and inevitably had negative consequences undesirable for tourists.

In the instances when favorability value was not predetermined by category coding, interpretation of favorability involved two main considerations: 1) the issue itself; and 2) the attitude to this issue expressed in the article. For example, articles about prostitution, treatment of gay people, or alcoholism, were always coded as negative because these issues presented considerable problems for Russia in the observed period of time. Therefore, if the headline indicated the topic of the article as news about, for example, homeless people, the article was coded as negative. In cases when the issue itself was insufficient to decide about favorability, the attitude to the issue expressed by the author was taken into consideration.
### Table 5.8 Favorability coding: Tourism

<table>
<thead>
<tr>
<th>Category</th>
<th>Favorable</th>
<th>Unfavorable</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NATURAL RESOURCES &amp; WILDLIFE</strong></td>
<td>SOMETHING TO DECLARE: DESTINATION OF THE WEEK: RUSSIA'S FAR EAST; The Independent, 7/24/2004</td>
<td>Russian threat; The Times, 6/5/2007</td>
</tr>
<tr>
<td><strong>ACCESSIBILITY</strong></td>
<td>Travel: City break: Moscow: Russian around: Way to go; The guardian, 11/3/2001</td>
<td>Roman Catholic clergy refused entry to Russia; The Times, 8/31/2002</td>
</tr>
<tr>
<td><strong>PACKAGES</strong></td>
<td>ALL ABOARD FOR RUSSIAN EXPERIENCE; THE BEST DEALS, THE LATEST HOT-SPOTS AND WHAT'S NEW IN TRAVEL; The Independent, 6/26/2004</td>
<td></td>
</tr>
<tr>
<td><strong>TOURS &amp; CRUISES</strong></td>
<td>Trees, trees and more trees; Visiting the former USSR is not cheap but it is a challenge. Here, Martin Varley boards the Trans-Siberian Railway; The independent, 5/6/1995</td>
<td>RUSSIA'S LUXURY ARCTIC TOURS RISK NUCLEAR DISASTER; The Independent, 6/26/2004</td>
</tr>
<tr>
<td><strong>AIRLINES &amp; AIRPORTS</strong></td>
<td>AeroFlot courts Russian high-flyers; The Times, 8/26/1998</td>
<td>US fear of flying Russian airlines; The Independent, 7/22/1994</td>
</tr>
<tr>
<td><strong>TRANSPORTATION</strong></td>
<td>How do they do it?: Moscow has mosaics and chandeliers; The Guardian, 8/22/2001</td>
<td>Russian answer to road congestion; The Times, 8/7/2002</td>
</tr>
<tr>
<td><strong>HOTELS</strong></td>
<td>24-HOUR ROOM SERVICE; HOTEL ASTORIA, ST PETERSBURG; The Independent, 5/10/2003</td>
<td></td>
</tr>
<tr>
<td><strong>CUISINE</strong></td>
<td>FOOD &amp; DRINK: BITES; RUSSIAN; The Independent, 6/26/2004</td>
<td>&quot;...if communism really ruined the Russian cuisine, as you suggest in your editorial, &quot;The wolf's feast,&quot;&quot; Russian cuisine; The Times, 9/11/1995</td>
</tr>
</tbody>
</table>

Headlines like “From Russia with love” or “Why Russian schools are cool” were considered as indicators of positive attitudes. In the categories of Foreign Affairs, Internal Affairs, or Economics words which indicated cooperation and agreement (e.g., “treaty” or “deals”) were also considered as indicators of favorable attitude of the whole article. When the headline was inconclusive (e.g., *The Guardian* on a regular basis publishes reports by their Moscow correspondents titled Moscow Diary), the assessment of favorability was made based on the first 5-10 sentences of the text. The recurrent topics that were assessed unfavorably were political crisis of October 1993 (category SAFE); economic hardships (category ECON) and social turmoil (category SOC) of the Yeltsin’s reforms; financial default of August 1998 (category ECON); military conflict in
Chechnya (category IA); sinking of submarine “Kursk” with nuclear missiles (category SAFE); Moscow theater siege by Chechen terrorists (category SAFE), and poisoning of British citizen and former KGB officer S. Litvinenko in London (category SAFE). The topics that contributed positively were primarily from the Culture category. Table 5.8 illustrates favorability coding in the Tourism (category TOUR) category. Tables with examples of favorability coding for the articles from other six categories are given in Appendix D. Tables 5.1-5.8 and 6.1-6.5 with examples of category and favorability coding constitute the reliability guidelines.

5.5. Reliability Estimation

In order to estimate consistency of coding, the reliability study was conducted. Prior to the reliability study, all categories and sub-categories were decided upon, favorability guidelines completed, and the author of the thesis coded 960 randomly selected articles (15 in each of the 64 quarters). The second rater was an experienced researcher with a PhD degree. Being of a Russian descent, he was familiar with the host of issues which confronted Russia in the selected period of 1992-1997. Before the control coding began, training had been conducted. All guidelines were read and discussed. Then, two randomly selected articles from each quarter (128 altogether), which had not been coded before, were coded by the second researcher, with the first researcher providing supervision and support. In the process of coding and discussion, it was noted that there was an ambiguity within the CULT category. Books about Russia often touch upon the topic of Soviet past, which made it unclear whether the article should be classified as unfavorable (Soviet Past) or favorable (Arts or Customs). It was decided that in such a case, preferences is given to the Arts sub-category. After the training process was completed, three more randomly selected articles from each quarter were selected for the total of 184 articles. The discrepancy in the number of articles is due to the fact that several quarters had less than 20 articles altogether. The control coding was conducted in 2.5 hours.
To estimate agreement between the coders, two indicators were used – the percentage of cases in which the researchers agreed and Cohen’s Kappa. These two indicators were calculated both for category and favorability coding. For favorability coding, the researchers disagreed on 25 cases out of 184, which gives 86.4% of agreement. It should be mentioned that the raters differed in assessing favorability in one of the two ways: “favorable versus neutral” or “neutral versus unfavorable.” In the category coding, the discrepancies were larger: the raters differed in 44 out of 184 cases, see Table 5.9. Thus, the relative agreement was 76.1%. The categories which were most often confused included Internal Affairs and Foreign Affairs (5 instances), as well as Social Issues and Economic Development (3 instances).

Cohen's kappa (Cohen, 1960) coefficient $\kappa$ is a statistical measure of inter-rater agreement for qualitative (categorical) items. The seminal paper introducing kappa as a new technique was published by Jacob Cohen in the journal *Educational and Psychological Measurement* in 1960. It is generally thought to be a more robust measure than simple percent agreement calculation since $\kappa$ takes into account the agreement occurring by chance. Cohen's kappa measures the agreement between two raters who each classify $N$ items into $C$ mutually exclusive categories. In the case of favorability assessment, $N$ equals 184 and $C$ equals 3, since favorability was estimated as -1, 0, or +1.

The equation for kappa is given by the formula:

$$k = \frac{Pr(a) - Pr(e)}{1 - Pr(e)}$$

where $Pr(a)$ is the relative observed agreement among raters, and $Pr(e)$ is the hypothetical probability of chance agreement. If the raters are in complete agreement then $\kappa = 1$. If there is no agreement among the raters, other than what would be expected by chance, then $\kappa \leq 0$.

The relative observed agreement for favorability assessment was 0.864. The probability to agree by chance in any single instance is 1/3, since out of 9 possible assessment outcomes (00, 01, 0-1, 10, 11, 1-1, -10, -1,1, -1-1) three (00, 11, -1-1)
constitute the agreement between the raters. Therefore, Cohen’s kappa for favorability assessment equals 0.796. For category coding, the relative observed agreement was 0.761. Since we had eight categories, there are 64 possible outcomes in every single assessment and 8 of them constitute the agreement. Therefore, Pr(e)=1/8. Cohen’s kappa for category coding is calculated as 0.727. To interpret the degree of agreement in more qualitative terms, the approach by Landis and Koch (1977) was used. These researchers interpreted the values of Cohen’s kappa in the following way: (1) no agreement (<0); (2) slight agreement (0.0-0.20); (3) fair agreement (0.21-0.40); (4) moderate agreement (0.41-0.60), (5) substantial agreement (0.61-0.80); and (6) almost perfect agreement (0.81-1.00). Using these guidelines, the inter-rater reliability in the control coding process was considered acceptable.

Table 5.9 Reliability estimation: Category coding

<table>
<thead>
<tr>
<th>Rater 1/Rater 2</th>
<th>CULT</th>
<th>ECON</th>
<th>FA</th>
<th>IA</th>
<th>SAFE</th>
<th>SOC</th>
<th>TOUR</th>
<th>NR</th>
<th>Total</th>
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</thead>
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<td>7</td>
<td></td>
<td></td>
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<td>FA</td>
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<td>SAFE</td>
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<td>2</td>
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<td></td>
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<td>3</td>
</tr>
<tr>
<td>SOC</td>
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<td>3</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>TOUR</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
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<td></td>
<td>4</td>
</tr>
<tr>
<td>Not Relevant (NR)</td>
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<td>1</td>
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<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>7</td>
<td>9</td>
<td>7</td>
<td>2</td>
<td>9</td>
<td>2</td>
<td>2</td>
<td>44</td>
</tr>
</tbody>
</table>

5.6. Quarterly Dynamics of News by Category

The total number of articles collected from the LexisNexis database was 2,439. The number of articles coded was 1,332, with 20 articles selected randomly from every one of 64 quarters. Two periods, the fourth quarter of year 2001 and the first quarter of year 2002, had 14 and 18 articles, respectfully. Two more periods, the second quarter of year 2002 and the third quarter of year 2002, had just 20 articles each. For these four periods all data were coded. In the process of coding, 52 out of 1,332 articles were identified as not relevant to the topic of the study, which constitutes ~3.9% of textual
material. The low rate of irrelevant articles was considered as an indicator that the article selection process described in section 5.2 was adequate. After the coding was completed, the next step was to estimate how many articles from each category were in every period, based on the results of the sample coding and the number of the articles in the period. It was done using a simple principle of extrapolation. For example, if among 20 coded articles from period T ten were coded in the CULT category, and period T contains 60 articles, then the total number of articles in CULT category for that period was estimated as three times ten, i.e. 30. It was also assumed that proportion of positive and negative articles in all body of material for period T was the same as in the coded sample. Figure 5-5- Figure 5-11 illustrate quarterly dynamics of positive (P) negative (N) and neutral (0) news about Russia published in The Times, The Guardian, and The Independent for the period of 1992-2007 in a single category: CULT, ECON, SOC, IA, FA, SAFE, and TOUR. Graphs in the upper-right corner in figures 5-5, 5-6, 5-7, 5-8, 5-9, 5-10, and 5-11 show the number of positive news minus negative news.

Figure 5-4 Quarterly dynamics of Russian news in each category
Figure 5-5 Quarterly dynamics of news in Culture & History category

Figure 5-6 Quarterly dynamic of news in Economic Development category
Figure 5-7 Quarterly dynamics of news in Social Issues category

Figure 5-8 Quarterly dynamics of news in Internal Affairs category
Figure 5-9 Quarterly dynamics of news in Foreign Affairs category

Figure 5-10 Quarterly dynamics of news in Safety category
5.7. DDII-Russia: Validation

In the absence of an explicit theory of consumer decision-making, it is understandable that the most often used model which describes tourism demand is extremely simple and is based on an assumption of “rational” consumer behavior. A potential traveler is expected to behave “rationally,” i.e., he/she is knowledgeable, can compare alternatives, and is always aimed to maximize utility. The theory postulates that if prices for a destination XYZ rise, the demand is expected to drop. Another group of theories proposes that media heavily influence public awareness, perceptions, and behavior, including buying decisions. Effects research analyzes the impact and influence of the media on audiences utilizing a whole range of methodologies, including empirical studies, uses and gratification approaches, reception analysis, and cultural studies. Those various traditions can be placed on a continuum describing the strength of the media in shaping the audiences ideas, feelings, and motivations (Hall, 1980; Ravault, 1986; Shoemaker & Reese, 1996).
This study introduces a numerical measure of changes in destination image through time – the Dynamic Destination Image Index (DDII). DDII reflects how a destination is presented by mass media in a particular tourist market during a certain time period, and is obtained by studying relevant media messages. The analysis is guided by destination image theory and content analysis methodology. The DDII is a combined measure reflecting positive and negative events that happened at a destination in a particular time period, destination’s natural resources and culture, how safe it is for tourists, how high its level of infrastructure development is, and other important attributes, as they are presented in mass media on a certain tourist market.

To validate the proposed DDII and investigate whether mass media presentation of a destination in a certain market affects tourists’ decision to travel there, modeling the effect of messages about Russia from the British media sources was conducted. The research was motivated by previously obtained results of modeling 1993-2004 UK travel demand for Russia and China (Stepchenkova & Ismail, 2007). Chinese arrival data were better explained by the adopted model both in terms of the model fit and economic theories. The model which describes the UK leisure arrivals to Russia was less conclusive: the positive and significant coefficient of the Russian prices variable seemed contradictory to the theory of “rational” consumer behavior. It was hypothesized that, as a destination, Russia opened to the world in this very time, and generated so much excitement that travelers were willing to overlook high prices, undeveloped infrastructure, and complicated visa procedure. Thus, a classical econometric model of UK arrivals to Russia for a period of 1993-2007 was extended by introducing the DDII variables reflecting the presentation of Russia as a destination in the UK general media. Availability of the arrivals data from the UK statistics office was also a positive factor in choosing the UK as the origin country for this research. Quarterly data were preferred, since, with Russia being a relatively new tourism destination, annual data supplied too few data points for the analysis.
5.7.1. Econometric model and data

The choice of dependent and independent variables for tourism demand model was determined based on relevant consumption and consumer behavior theories (Deaton and Muellbauer, 1980; Uysal, 1983), previous tourism demand studies (Li et al., 2005; Lim, 1997; Song & Witt, 2000; Witt & Witt, 1995), and data availability. Determinants of tourism demand have been classified into three main groups of factors: (a) socio-economic and demographic factors such as population, income in origin country, leisure time, education, occupation, etc.; (b) price factors, such as consumer price induces, exchange rates, and transportation cost; and (c) qualitative factors like tourist appeal, image, marketing and promotion (Dwyer, Forsyth, & Rao, 2000). Lim (1997) surveyed 100 empirical studies on international tourism demand and found that the most widely used explanatory variables were income, relative prices, and transportation costs. Crouch (1994) supports the argument that income is the most important explanatory variable in tourism demand research. As for price effects, Crouch (1994:13) argues that “economic theory ensures that price must be included in any demand study, but for the study of tourism, the issue of price is particularly vexatious.” Most economic studies have used the single equation methodology to explain tourism demand, usually at the national level, as demonstrated by the reviews of Johnson and Ashworth (1990), Crouch (1994), and Lim (1997). The model specification was as follows: \( \text{ARR}(t) = F(\text{IN}(t), \text{RP}(t), \text{EX}(t), \text{Q}(t), \text{DDII}(t)) \), with \( F \) being a linear function. The independent variables are described below:

**Quarterly tourist arrivals \( \text{ARR}(t) \).** The data was originally obtained in International Passenger surveys (IPS) conducted by the UK National Statistics Office. Electronic data for Russia goes back as far as 1993. At the time of this study the latest available data point was the 4th quarter of year 2007. The IPS is a sample survey, based on a random sampling of every one out of 500 international traveler in points of departures (international airports, ports, etc.). Only a small number of visitors to Russia may be caught by the sample, which might have effect on estimated figures of the total number of visitors to the country. This is especially true when the data is split down by categories such as Holiday, Business, Visiting Friends and Relatives (VFR), and Other,
making the sample size smaller. Since business travel is less dependent on personal preferences, total and leisure arrivals data were used in this research. Leisure arrivals were calculated as the sum of Holiday, VFR, and Other categories. The arrivals figures are measured in thousands of visitors.

**Income in the UK IN(t).** Income measures are generally not available on quarterly or monthly basis. Therefore, for this study it was decided to use average wage in the UK as an approximation for the income variable. The average real wage index (CAWR) data series was obtained from the EIU database. The average real wage index is in British pounds rebased to year 2005=100.

**Price PR(t).** The price variable includes prices of tourist services for which no single index is wholly adequate. Consumer Price Index was selected as a proxy to Russian tourism prices variables. The consumer price index (CCPI) rebased to year 2005=100, was obtained for Russia and UK from the EIU database.

**Exchange rates EX(t).** National currency per US dollar quarterly series (XRPD) for Russia (RUB/USD) and the UK (GBP/USD) were obtained from the EIU database. The data is period average. In the first quarter of year 1998, the denomination of Rouble currency took place in Russia, and 1000 roubles became one rouble. The researchers checked whether Russian XRPD series was adjusted for this factor, and found that it had been.

**Seasonality factor Q(t).** Seasonal variations in travel Q(t) was recoded in four quarterly dummy variables q1, q2, q3, and q4, with q1 (January-March) being suppressed in the model.

**Media messages DDII(t).** The numerical representation of the volume and topics of news about Russia published in UK was constructed using content analysis methodology. DDII series reflect presence of Russia-related themes in the UK mass media.
The collected data series are shown in Figure 5-12 through Figure 5-16. Descriptive statistics of the model variables are given in Table 5.10.

<table>
<thead>
<tr>
<th>Table 5.10 Model variables: Descriptive statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
</tr>
<tr>
<td>-----</td>
</tr>
<tr>
<td>ARR_T</td>
</tr>
<tr>
<td>ARR_L</td>
</tr>
<tr>
<td>IN</td>
</tr>
<tr>
<td>PR_rus</td>
</tr>
<tr>
<td>PR_uk</td>
</tr>
<tr>
<td>EX_rus</td>
</tr>
<tr>
<td>EX_uk</td>
</tr>
</tbody>
</table>

Figure 5-12 Arrivals to Russia from the UK (in thousands): 1993-2007
Figure 5-13 Income in the UK: 1993-2007

Figure 5-14 Prices in Russia and the UK: 1993-2007
Figure 5-15 Russian rouble to US dollar exchange rate: 1993-2007

Figure 5-16 British pound to US dollar exchange rate: 1993-2007
5.7.2. Modeling effect of media messages

The first runs of the model indicated high pair-wise correlations between original data series representing income in the UK (CAWR), price of tourist goods in Russia (CCPI), and exchange rate (XRPD); e.g., the correlation between income and price variables was 0.994. The model was tested for linearity, homoscedasticity, and normality of residuals assumptions, which were found to hold. To remove collinearity, various transformations were conducted on the highly collinear variables. For example, first difference and one lag period were applied to the income variable. To remove the USD component, relative price and exchange rate variables were created by dividing Russian CCPI and XRPD series by the corresponding UK ones. While the collinearity effect was reduced, the model, however, exhibited essentially the same behavior: when both income and price variables were in the model, income variable was insignificant, and the price variable had the wrong sign. When included separately, the income variable was significant, and the sign was correct; relative price and exchange rate variables were highly significant, but the sign was wrong. To remove the wrong sign effect and in order to include both income and price indicators in the model, various model configurations have been tested. Among them are differencing of the dependent variable; using expenditures as the dependent variable; including time trend; testing model with oil prices as proxies for transportation costs; and testing log-log functional form. Since after the financial crisis of August 1998 there was a sharp surge in exchange rate, the model has also been tested on partial dataset – before and after the crisis.

Having considered and tested a variety of models, it was concluded that none of them outperformed the simplest model $\text{ARR} = F(IN, q1, q2, q3)$. The R-square indicator of model fit for total and leisure UK arrivals were .57 and .69, respectively. No serious autocorrelations were detected in the model. This model was regarded as the base restricted model for modeling the effects of media messages on total and leisure tourist arrivals from UK to Russia.
Table 5.11 UK total arrivals to Russia

<table>
<thead>
<tr>
<th></th>
<th>DF</th>
<th>SS</th>
<th>MS</th>
<th>F Value</th>
<th>p-value</th>
</tr>
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<tr>
<td>Model 1</td>
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<td>725.76</td>
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<td>Cor. Total</td>
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<td>5071.34</td>
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</tr>
<tr>
<td>R²/Adj-R²</td>
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<td>0.57/0.54</td>
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</table>

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<tr>
<th>Variable</th>
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<th>Standard Error</th>
<th>t Value</th>
<th>p-value</th>
<th>VIF</th>
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</thead>
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<tr>
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<td>Income</td>
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</tr>
<tr>
<td>q²</td>
<td>7.53</td>
<td>2.29</td>
<td>3.28</td>
<td>0.0018</td>
<td>1.50</td>
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<td>q⁴</td>
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<td>2.29</td>
<td>2.05</td>
<td>0.0454</td>
<td>1.50</td>
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<th>p-value</th>
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<td>457.72</td>
<td>16.56</td>
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<td>Error</td>
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<td>1409.61</td>
<td>27.64</td>
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</tr>
<tr>
<td>Cor. Total</td>
<td>59</td>
<td>5071.34</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R²/Adj-R²</td>
<td></td>
<td>0.72/0.68</td>
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<table>
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<th>Variable</th>
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<th>t Value</th>
<th>p-value</th>
<th>VIF</th>
</tr>
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<tr>
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<td>-2.13</td>
<td>0.0379</td>
<td>0.00</td>
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<tr>
<td>Income</td>
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<td>0.08</td>
<td>3.99</td>
<td>0.0002</td>
<td>1.29</td>
</tr>
<tr>
<td>TOUR3</td>
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<td>0.28</td>
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<td>0.0170</td>
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<td>0.35</td>
<td>-2.36</td>
<td>0.0224</td>
<td>1.34</td>
</tr>
<tr>
<td>SOC0p</td>
<td>0.80</td>
<td>0.29</td>
<td>2.76</td>
<td>0.0080</td>
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<td>ECON</td>
<td>0.62</td>
<td>0.16</td>
<td>3.82</td>
<td>0.0004</td>
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<tr>
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<td>0.0003</td>
<td>1.53</td>
</tr>
<tr>
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<td>6.42</td>
<td>&lt;.0001</td>
<td>1.66</td>
</tr>
<tr>
<td>q⁴</td>
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<td>1.96</td>
<td>2.85</td>
<td>0.0064</td>
<td>1.57</td>
</tr>
</tbody>
</table>

Next, the overall number of articles (N) variable was added to the model; it came significant at .10 level for the total UK arrivals model. To find the most influential news series, seven category variables were included in the model; variables ECON, CULT, and SOC had p-values of .004, .091, and .109, respectively, for the total UK arrivals model. The CULT variable had a negative sign, suggesting that CULTn variable should be tested. The model was tried with the CULTn series (news about Soviet past), and the significance of the CULTn series was confirmed. ECON0, ECONn, and ECONp were tested, but their effects were not significant. Series from SOC category representing positive news (SOCp) and neutral news (SOC0) were combined, and the non-negative Social Issues news series was obtained (SOC0p). SOC0p series was tested and found to be significant. Then, all series were tested with one-, two-, and three-period lagged
effects; as a result, TOUR3 series came significant in both total and leisure UK arrivals models at .05 level. Therefore, the final unrestricted model contained TOUR3, CULTn, SOC0p, and ECON news variables. The comparisons of restricted and unrestricted models for total and leisure UK arrivals are given in Table 5.11 and Table 5.12, respectively.

Table 5.12 UK leisure arrivals to Russia

<table>
<thead>
<tr>
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<th>SS</th>
<th>MS</th>
<th>F Value</th>
<th>p-value</th>
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<tr>
<td>Model 1</td>
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<td>2442.58</td>
<td>610.64</td>
<td>30.02</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Error</td>
<td>55</td>
<td>1118.77</td>
<td>20.34</td>
<td></td>
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</tr>
<tr>
<td>Cor. Total</td>
<td>59</td>
<td>3561.35</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>R²/Adj-R²</td>
<td>0.69/0.66</td>
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<tr>
<td>Variable</td>
<td>Parameter Estimate</td>
<td>Standard Error</td>
<td>t Value</td>
<td>p-value</td>
<td>VIF</td>
</tr>
<tr>
<td>Intercept</td>
<td>-25.72</td>
<td>5.46</td>
<td>-4.72</td>
<td>&lt;.0001</td>
<td>0.00</td>
</tr>
<tr>
<td>Income</td>
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<td>0.06</td>
<td>6.52</td>
<td>&lt;.0001</td>
<td>1.00</td>
</tr>
<tr>
<td>q2</td>
<td>3.90</td>
<td>1.65</td>
<td>2.37</td>
<td>0.0216</td>
<td>1.50</td>
</tr>
<tr>
<td>q3</td>
<td>11.94</td>
<td>1.65</td>
<td>7.25</td>
<td>&lt;.0001</td>
<td>1.50</td>
</tr>
<tr>
<td>q4</td>
<td>-1.17</td>
<td>1.65</td>
<td>-0.71</td>
<td>0.4807</td>
<td>1.50</td>
</tr>
</tbody>
</table>

The significance of the news series as a group was calculated using the following formula (Kmenta, 1986):

\[ F = \frac{(SSE_R - SSE_u) / r}{SSE_u / (n-k)} \]

where
\( \text{SSE}_r \) – error sum of squares for the restricted model;
\( \text{SSE}_u \) – error sum of squares for the unrestricted model;
\( r \) – number of restrictions;
\( n \) – number of observations;
\( k \) – number of right-hand-side variables unrestricted.

The number of restrictions in both total and leisure arrivals models is four (variables TOUR3, CULTn, SOC0p, and ECON), the number of observations is 60 (quarters for the 1993-2007 period), and the number of right-hand-side variables, unrestricted, is nine, including the intercept. For total arrivals, the F-statistic equals 6.86 (see Table 10 for error sums of squares), which corresponds to p-value=.0002. For leisure arrivals, F-statistic is 5.52 (see Table), which corresponds to p-value=.003. It was concluded that as a group, the DDII news series are a significant improvement of both models.

5.8. DDII-Russia: Discussion of Results

The study defined seven general categories of news with respect to Russia published by three most influential British newspapers *The Times*, *The Guardian*, and *The Independent*. They are Culture & History (CULT), Economic Development (ECON), Social Issues (SOC), Internal Affairs (IA), Foreign Affairs (FA), Safety (SAFE), and Tourism (TOUR). Each category had several thematic sub-categories which in some cases served as indicators for favorability coding: for example, all articles from the sub-category Soviet Past (category CULT) were coded as negative. Favorability coding produced one, two, or three separate DDII series within each news category – positive, negative, or neutral. These series reflecting the destination image of Russia on the UK travel market were tested in the model of total and leisure UK arrivals to Russia.

Negative news from the CULT category (CULTn) had negative significant effect in the model. This result is in agreement with earlier findings from Stepchenkova & Morrison (2008) that Russia’s Soviet past is a negative factor in an overall image perception of the country among potential U.S. travelers. News about Russia’s economic
development (ECON) had positive significant effect on arrivals. In terms of favorability assessment, the ECON series includes positive, negative, and neutral articles; however, none of the three series—ECONp, ECONn, or ECON0—was significant on its own.

Another series, which had positive significant effect in the model, is SOC0p, a combination of positive and neutral news from the Social Issues category. In the SOC0p series, positive news dominated: there were just a few articles coded as “neutral.” The SOC0p series included articles from the Westenization sub-category, which contained news about openness of the new Russian society to the Western influence, sports and educational cooperation, among other issues. The TOUR category, lagged three periods, also had a positive significant effect. While the TOUR category has articles coded both favorably and unfavorably, the positive news dominates. Thus, the TOUR category can be regarded as predominantly positive series.

Interestingly, the SAFE category did not come significant. Research by Stepchenkova & Ismail (2007) had a similar finding: the dummy variable which reflected occurrences of high profile terrorist attacks in Russia did not come significant in a tourism demand model. One explanation might be that news about sporadic, infrequent events does not affect travel decisions. Foreign Affairs and Internal Affairs news series did not come significant, either, suggesting that news about Russia’s foreign policy has little effect on perception of Russia as a travel destination. The Internal Affairs category consisted of two series—neutral news reflecting the political process in Russia and negative series about military conflict in Chechnya. It can be argued that Russian political life has little relevance to the potential tourists’ decision to come to Russia. In addition, the Chechnya region is too far away from the main Russian tourist destinations of Moscow and Saint-Petersburg for the disturbing news to have effect on arrivals to the main Russian cities. However, it should be mentioned here that the reliability of coding for these two categories was the lowest (see Table 5.9), which might also be a reason that the effects of IA and/or FA news did not show in the model.

With respect to favorability, the reader should keep in mind two things. First, the favorability assessment, although sufficiently reliable in this study, reflects the
researchers’ perceptions of the attitudes expressed in media messages. How these messages are processed by potential visitors to Russia, what perceptions of Russia they are contributing to, and how these perceptions translate into behavior are different questions. For example, positive news about Russian culture (CULTp) did not have a significant effect in the study. The CULTp series represent the number of articles about Russian music, ballet, exhibitions of Russian art coming to UK, etc. Although these articles definitely remind the reader about the Russian cultural heritage, does it mean that this news make the reader more likely to go to Russia? These questions need to be addressed in more details in the future studies. The second point is that news series used in the model of UK arrivals to Russia are obtained by extrapolation of the coding results made on a sample of 20 articles from each quarter. The more categories of news the researcher is dealing with, the larger is the possibility for error in the extrapolation process, especially in a situation when none or only one article is classified into a certain category from the sample of 20.

Two limitations of the methodological process used in the DDII-Russia study should be noted. Due to the nature of the textual material, there were cases when a single article could have been classified into several categories, for example, Economic Development and Social Issues or Internal Affairs and Foreign Affairs. It often happened with the long articles which touched upon several topics when reporting news from Russia. In these cases, the researcher had to decide what the dominating topic was in order to code the article. To improve consistency of classification and inter-rater reliability of coding, the guidelines were written to assist with this process (see Appendix D). For both category and favorability coding, a single article was selected as a recoding unit. While content analysis researchers generally agree that a single article is the least reliable recording unit (Holsti, 1969; Krippendorff, 2004), this choice was dictated by the extremely large amount of textual data, as well as a wide range of topics with respect to Russia. In general, greater precision leads to increased costs of analysis. The researcher must decide how fine are the distinctions he needs in order to answer satisfactorily his research question.
CHAPTER 6. DISCUSSION

Discussion in Chapter 6 centers on theoretical and methodological issues of the proposed Dynamic Destination Image Index (DDII), as well as on practical relevance of the DDII for destination management process by destination marketing organizations (DMOs). Section 6.1 Theoretical Implications deals with the issue of conceptualization of the DDII and underscores the novelty of the concept within the field of destination image research. Section 6.2 Methodological Considerations discusses the proposed methodology for operationalization and constructing the DDII, using two case studies, DDII-Aruba and DDII-Russia, as contrasting examples. Section 6.3 Practical Relevance highlights practical applications of the DDII and discusses the outcome of the validation studies. Section 6.4 Limitations and Further Research indicates limitations of the DDII concept and proposes directions for future research.

6.1. Theoretical Implications

The study proposes a new concept in destination image research – a Dynamic Destination Image Index, or DDII. DDII is a reflection of how the destination is presented by the media on a particular tourist market for a certain period of time. DDII is an index which integrates frequency and favorability of various news themes, e.g., destination culture and history, tourism resources, economic and social situation, or political life, in media coverage of the destination. By form, it is a numeric series that reflects how much news about the destination was published and how favorable or unfavorable the media coverage was. The DDII is different from other destination indices proposed earlier: it is a measure of destination “performance” in absolute figures, rather than that of relative to other destinations and can be constructed for any “destination-country of origin” pair. The DDII is not based on the consumer survey: it rests on content
analysis of media materials which are always available; thus, the DDII can be constructed as often as needed. The DDII measure is dynamic: it reflects changes in destination image as presented by mass media through time, and can be constructed with a desirable level of aggregation: as weekly, monthly, quarterly, or annual time series. The proposed DDII is an objective, reliable, and valid measure of destination performance in the media on a particular tourist market; it is an indicator of the destination visibility and, as was found in this study, helps explain tourists’ purchasing behavior. DDII incorporates the components of destination image as they are reflected in media messages and, put in the models of tourism demand, indicates that it can be a significant factor in explaining tourists’ buying behavior. The DDII validation procedure described in sections 4.6 and 5.7 provides a clear indication that this line of research is worth further investigation. As far as the author knows, quantification of media messages to obtain a Dynamic Destination Image Index and its further validation in models explaining tourist arrivals is the first study of this kind.

In the DDII concept several modern trends in the destination image research came into focus (see section 2.3.7). Conceptually, the DDII is grounded in the destination image theory. The DDII clearly has two aspects – cognitive and affective. The index is based on frequency of mentioning, which is similar to the cognitive assessment of destination attributes. The more often a particular theme is covered in the news, the more visible it is, the more important it is perceived, and the more likely that the potential visitors will have stronger perception of this theme and its respective destination attribute. Thus, frequency of mention that is directly related to theme importance represents a cognitive dimension of destination image construct in the DDII. The favorability analysis (positive, negative, or neutral theme coverage) is based on the theory of attitude, which is also a theoretical grounding for the affective images (see section 2.2.1). Thus, the measure of favorability that is assigned to a theme in the process of content analysis represents the affective dimension of the DDII construct.

Some researchers believe that the construct of destination image has a conative component which is responsible for tourist behavior (see section 2.2.1). The DDII-Aruba
and DDII-Russia studies indicate that the proposed DDII concept has a potential to explain tourists’ behavior, as a time series in models of tourism demand. However, not all DDII news categories were significant factors in explaining the total and leisure UK arrivals to Russia. Some news categories and sub-categories, e.g., Soviet Past, Tourism, Social Issues, and Economic Development, came as having more influence on tourists’ purchasing behavior. The other news categories did not appear influential. The author would like to call this phenomenon the volatility of the DDII news category series. Prior to the DDII-Russia study, the author hypothesized that articles about disasters, terrorist attacks, and political unrests, i.e., all news that were classified in the Safety category, were high volatility factors, meaning that the appearance of these negative news in the media would swing tourist behavior and prevent them from going to a destination. Infrastructure, services, facilities, etc. were perceived as factors of medium volatility. The author thought that people in the country of origin know, in general, about state of destination infrastructure, so potential travelers would be less affected by negative or positive news about it. News about culture, history, natural resources, etc. was perceived by the author as low volatility factors, since these are almost permanent features of a destination. Cultural images can be revoked or reinforced by media coverage but not significantly changed. However, the authors’ hypotheses about volatility of certain news categories were not substantiated in the process of research. More studies are needed to clarify the level of influence of various news categories.

The place that interpretation takes in quantitative content analysis methodologies was considered by Roberts (2000) in his 2x3 taxonomy of quantitative content analysis approaches. In his classification, one dimension, structural, distinguishes between the ways of obtaining a numerical data matrix of themes/categories frequencies from the text, and the other dimension, interpretational, reflects the perspective from which results are interpreted. Along the structural dimension of Robert’s taxonomy there are thematic, semantic, and network text analyses. The thematic approach is rooted in contingency analysis (Osgood, 1959) and involves counting themes (categories, or key words) belonging to a certain theoretical construct within text blocks. The category coding approach that is proposed for constructing the DDII is, therefore, thematic. In the
semantic text analysis, textual data are separated into specified semantic units, e.g., subject-action-object triplets, and every unit is associated with a certain numerical sequence. In the network analysis, text is presented as a network of interrelated themes, and theme linkages are measured by specially generated variables. A quantitative content analysis always produces a two-dimensional data matrix suitable for further statistical analysis.

The interpretational dimension of the Roberts’ taxonomy differentiates between the two types of text interpretation: representational and instrumental. “When a researcher understands texts representationally, they are used to identify their sources’ intended meanings. When a researcher understands texts instrumentally, they are interpreted in terms of the researcher’s theory” (Roberts, 2000:262). The necessity of this distinction is illustrated by Roberts using an example from Namenwirth and Weber (1987:237) who noted that sometimes the sources of the texts “are unfamiliar with many fundamental properties of their own culture and … to recover culture’s properties and rules, we cannot ask culture’s participants to answer these questions. Instead, we must rely on outsiders as investigators.” Having followed the discussion by George (1959b), Pool (1959), Osgood (1959), and Shapiro (1997) regarding representational versus instrumental interpretational dimensions, Roberts (2000) concludes that in many instances text analysis involves both representational and instrumental perspectives, since the researcher can interpret instrumentally the thematic categories which were obtained representationally from the text.

In the proposed DDII-constructing approach, the categories that are pre-specified for coding of the selected textual materials should reflect main destination attributes. However, as was seen in section 5.3, for the more complex destinations like Russia the difference between destination and country attributes is less pronounced. More research is needed to identify the difference between country and destination attributes and their respective news categories, in addition to whether country attributes play an important role in destination image formation. It should be realized, though, that in the process of category coding the researcher imposes his or her own perspective (granted, it is often
based on relevant theories or previous research) on the DDII. The researcher can code certain news as negative; however, he or she is not sure whether they would be perceived as such by various groups of potential travelers to the destination. From this standpoint, the researcher combines representational and instrumental aspects of content analysis in interpreting the news. “When a researcher understands texts representationally, they are used to identify their sources’ intended meanings. When a researcher understands texts instrumentally, they are interpreted in terms of the researcher’s theory” (Roberts, 2000:262). The representational aspect surfaces when the researcher bases the assessment of favorability on attitudes expressed by authors of the articles; in such cases, the researcher interprets the text in a way he understands the author’s intended meaning. At the same time, in the DDII-Russia study, several sub-categories of news were assigned positive or negative favorability score, e.g. the sub-category Soviet Past was assigned the negative score in all cases. Such decisions were based on the theoretical considerations or previous research findings and, thus, can be considered as instrumental.

6.2. Methodological Considerations

The study demonstrated that the proposed DDII methodology is very flexible and works for different types of destinations and media materials. Aruba and Russia are very dissimilar destinations. They dramatically differ in size and proximity to the origin tourist market, the U.S. for Aruba and the UK for Russia. Aruba is an established “see, sand, and sun” vacation spot, while Russia is an emerging, more culturally-oriented destination; thus, their destination products are completely different. The analyzed amount of news about Aruba in the U.S. general newspapers is much smaller than the wealth of material about Russia in the Big Three UK newspapers collected for the DDII-Russia project. While the 12 categories identified for Aruba are basically established destination attributes identified numerous times in the past destination image research, Russian news categories are much more aggregated, and their thematic scope is much wider. For example, the TOUR category in the DDII-Russia study encompasses several topics, i.e., infrastructure, attractions, nature and scenery, which made separate categories in the DDII-Aruba research. However, despite all these differences, the proposed methodology
was successfully applied in both case studies and both DDII-Aruba and DDII-Russia were validated by showing their correlation with the data obtained independently of these content analysis projects.

To accommodate the differences between the destinations and adjust for the volumes of textual materials under study, the variations in methodology of constructing the DDII-Aruba and DDII-Russia were applied. In both case studies the sampling unit was an article. However, in the DDII-Aruba case, the recording unit was a theme, i.e., every reference to Aruba as a destination was classified into the respective category. The context unit was three sentences (see section 4.2). In the DDII-Russia study, the whole article was a recording unit and was classified into one of the seven predetermined categories. The context unit was the headline or, if inconclusive, the first paragraph (5-10 sentences) of the text (see section 5.3). The time periods/reporting units were also different for the DDII-Aruba and DDII-Russia studies – a month and a quarter, respectively. The author would argue that since the number of articles about Aruba was not that large, the more precise coding with a theme as a recoding unit was better suited for the project on the whole, because it allows greater distinctions between the categories. The DDII-Russia content analysis project had a very large amount of textual material. The choice of categories made it possible to code at the level of the whole article and nevertheless to preserve the distinctions between the categories. Thus, the parameters of every DDII content analysis project such as sampling, recording, context units, as well as categories, should be determined based on a particular situation, with consideration of such factors as destination type, the amount of media material, and the period for which the DDII is constructed.

The issue of reliability of coding is also a central one. As soon as the coding categories are determined, the reliability of coding can be assessed by using various indicators like, for example, Cohen’s kappa (see section 5.5). To improve reliability, the researcher conducts training for coders, issues detailed guidelines and holds discussions of the categories prior to the control coding procedure. The researcher aims to reach as high reliability as possible, since high reliability is a necessary prerequisite for
objectively coded data. However, the choice of categories itself contains potential for subjectivity. As Krendel (1970:271) argued,

“The ordering and structuring of the data’s content have been influenced by the personal values and attitudes of the analyst. We cannot avoid imposing our values on material which we organize or categorize. The resulting biases can be lessened by combining the findings of several judges in the determination of final categories.”

In both projects only one researcher, the author of this dissertation, decided on the coding categories. Although she based her decisions on destination image theory, outcomes of previous research, and the nature of material under study to eliminate bias as much as possible, the bias, due to the nature of content analysis, could have been avoided only to some degree. It should also be mentioned that the more categories are defined for coding the more difficult it is to obtain high reliability, and the DDII-Russia study is a good demonstration of this principle. While category coding is generally considered more “reliable” than favorability coding, the number of categories (seven plus one “not relevant”) made the reliability figures for category coding lower then those of for favorability coding.

With respect to sample selection used to construct the DDII, there are two methodological issues that need to be mentioned. First, in the DDII-Russia study, sampling procedure restricts textual population of UK sources of textual messages about Russia to three most influential newspapers. In conducting this purposive sampling, it was assumed that articles printed in The Times, The Guardian, and The Independent are reprinted numerous number of times in regional and local media, as well as online. Thus, these papers can be considered as spokespersons for the entire population of relevant textual materials in UK about Russia. In regression model, the coefficient .70 at the TOUR3 variable (see Table 5.11) means that an increase in one article about tourism raises total UK arrivals to Russia by 700 people. It might seems like a lot but ith consideration of the “spokesperson” factor, the interpretation of parameter estimates for
variables TOUR3, ECON, SOC0p, and CULTn in the unrestricted models of UK total (Table 5.11) and leisure (Table 5.12) arrivals makes more sense. Second, in the DDII-Russia study, due to a large number of articles, random sampling was applied to select 20 articles from each time period. These 20 articles were coded and the coding results were extrapolated to the whole period, which is a very convenient technique that saves time and effort. However, the size of such sample should be carefully considered. Intuitively, the more content categories are specified for coding, the larger the sample should be, since rare categories would have a greater chance to be “overlooked” with a small sample.

A combination of category news scores into a single index is a separate question. In the DDII-Aruba study, such monthly category news series were combined into a single DDII index by applying a number of transformations on the original data series given in Table 4.2. While intuitively justified, such transformations, strictly speaking, were arbitrary. The validation of the DDII-Aruba was conducted for three DDII series: with no memory feature and with 2-months back and 4-months back memory feature. The results tentatively suggested that there is not the only DDII available. Rather, there are groups of DDII series representing the destination image as transmitted by the media which are valid and can be used to explain tourists’ behavior with respect to travel decisions. In other words, quantification of news series can be done in a number of ways. In contrast, the DDII-Russia was constructed as 7 separate data series, four of which came significant in the demand model. How to convert these series to a single series; what the conversion formula is the best; is such a conversion really needed or whether separate DDII news series are more informative for the DMOs purposes – all these questions need further investigation. The related question is whether or not to use recording units with neutral favorability in constructing DDII. In the DDII-Aruba study, the neutral references were excluded from the index construction process, while in the DDII-Russia study articles coded as neutral formed separate DDII news series, some of which contributed to the significance of DDII variables in the demand models – for example, ECON and SOC0p variables included neutrally coded articles. Thus, the question of importance of neutral news merits further research.
6.3. *Practical Relevance*

In this section, practical relevance of the proposed DDII is discussed from a perspective of destination branding. In modern times, when consumers have almost unlimited choices with respect to where they want to go for a vacation, competition between destinations is fierce. To get ahead of the competition and realize its tourist potential, destinations should be differentiated from one another, or positively positioned in the minds of travelers. DMOs achieve desirable differentiation by managing perceptions or images that consumers have about the destination (Echtner & Ritchie, 2003). According to Ahmed (1996:45), “the more positive a perception and the more favorable an image of a product, the more likely it is that those perceptions and that image will influence subsequent behavior.” The same holds true for destinations as well. Since travel-related product such as destination cannot be experienced before the actual visitation, branding has been seen as a way to distinguish one place from another, to convey a positive and motivating message, and to add value to the place (Aaker, 1991, 1996; Murphy, 1987, 1990; Cai, 2002). Research suggests that destination choice is influenced by not only tangible destination attributes such as climate, scenery, event, or prices but also the intangible factors, such as social satisfaction. To some degree, destination selection reflects people’s identity; the larger the self-congruency between destination identity and traveler’s self-concept, the more likely travelers are to visit the destination (Caldwell & Freire, 2004; Coshall, 2000).

Branding is a promise to the consumer, an expectation of performance and a mark of integrity and reputation (Travis, 2000). Brands should not be fictitious: it is amplification of what destination already has and not a fabrication (Gilmore, 2002). Branding combines tangible, verifiable, objective, and measurable destination characteristics together with the emotional rewards that consumers are promised to receive from visitation. However, in order to formulate the positioning statement and avoid the perception gap, marketing research to assess the current state of destination image perception is absolutely crucial. Marketing research provides information to differentiate the brand from its competitors as well as the direction and consistency of the marketing messages. Communications channels such as radio and TV advertisements,
print materials, celebrity endorsements, etc., should reflect the brand identity and be carefully selected. Through these channels, destination DMO influences perceptions of general public by projecting the desirable brand images in there induced materials. At the same time, when organic media sources publish about the destination, they reflect perceptions that the society and culture hold about the place. These organic images should be constantly monitored in order to counter negative perceptions and false information about a destination in DMO’s induced materials. Thus, the proposed DDII can be used as an indicator what general media, or organic sources, write about the destination and how favorable the coverage is.

In complex environments, it is often difficult even for the experts to estimate how things are perceived by general public. To give an example, it was generally accepted by political operatives that the Democratic presidential nominee Barack Obama was a favorite with the media in the presidential campaign during summer 2008 (www.nytimes.com/2008/08/24/opinion/24rich.html). But as George Mason University’s Center for Media and Public Affairs documented in its study of six weeks of TV news reports in summer 2008, 28% of the statements by network news people were positive for Obama and 72% negative. For his rival John McCain the split was 43/57 (www.cmpa.com/Studies/Election08/election%20news%207_29_08.htm). This type of information is potentially important for a candidate’s campaign strategists because it allows clearer understanding and assessment of the actual state of affairs. Thus, content analysis, a “research technique for the objective, systematic, and quantitative description of the manifest content of communication” (Berelson, 1952:18), can deliver an objective account of how a destination is presented by general media in strategic markets. Such information can help DMOs to recognize positive and negative tendencies in media coverage, counter negative perceptions, and spot emerging interest toward destination in new markets. The proposed DDII is one of the tools for destination management, marketing, and branding, designed to assist destination DMOs in decision-making process.
The validation process of the DDII-Aruba and DDII-Russia clearly indicates that besides a convenience of having an index which would reflect media coverage of the destination on a particular tourist market, the scope of usability of the proposed methodology is much wider. It extends to modeling and, ultimately, forecasting tourism demand. Another possible usage for the DDII is to estimate the effectiveness of promotional campaigns in the target markets. The effect of brand messages that destination DMO wants to transmit can be assessed by, for example, studying materials from Internet travel forums to see how visitors describe the destination, whether the frequencies and favorability of mention increases and whether images that DMO creates are “catching up.”

6.4. Limitations and Further Research

Limitations of DDII-Aruba and DDII-Russia case studies are discussed in sections 4.7 and 5.8, respectively. This section points out some general limitations of the DDII approach and outlines the directions of further research to investigate if these limitations can be mitigated. In the author’s view, the nature of main limitations of the proposed DDII methodology is two-fold. First, there are issues that are concerned with validity of the DDII; primarily, suitability of general newspapers for constructing the DDII and application of various mathematical transformations on the raw data obtained in the coding process. Second, practical relevance of the DDII for destinations’ DMOs can be jeopardized by a time-consuming process of constructing the DDII. A “bottle neck” of such an inconvenience is the absence of readily available standardized categories for coding that would be suitable for each and every destination-market pair of countries and the fact that the methodology process is done “by hand.” Thus, the next paragraphs expand on the following issues of the proposed DDII methodological approach: the relative importance of various media sources; the extent of applicability of various transformations on the DDII data series, feasibility of creating a set of standardized coding categories, and potential for developing a methodology for a computer-assisted construction of the DDII.
Numerical assessment of how destination image is transmitted by the general media, or, in other terms, quantification of media messages, is a central part of constructing the DDII. In both case studies, DDII-Aruba and DDII-Russia, the influential newspapers were chosen as the sources of destination image formation. Therefore, the question arises: How influential modern newspapers are? Is it possible that power of the media is currently shifting towards the Internet? What is the “reprint coefficient” of, say, an article from the title page in The Times? More research is needed to understand whether the proposed DDII is responsive enough to destination coverage in sources other than traditional newspapers, e.g., travel blogs, and, consequently, what sources are more influential in determining image perceptions of potential tourists.

In the DDII-Aruba study, several transformations were applied to the category frequency data obtained in the coding process (see Table 4.2) to calculate three DDII series: with no memory, with 2-months back memory, and with 4-months back memory. While some of these transformations seem intuitively reasonable and some have been justified based on content analysis methodology, they were not the only transformations possible on the original series from Table 4.2. It is quite likely that other transformations to the frequency data would have led to DDIIIs which could be successfully validated as well. Therefore, future research should explore methodological aspects of DDII construction responsible for transformations of frequency data obtained in the coding process. The viable questions are: Shall we incorporate article placement (front page or some other page) or headline size into category scores? Should we bring the DDII within a certain numerical range? What shall be numerical coefficients used in “memory” feature? Shall we measure frequency of a particular news theme by simple frequency counts or as a proportion of all counts in all categories? There are indications in (Weber, 1987, chapter 4; Holsti, 1969:122) that percentages or proportions that are used to standardize for the length of the document or other unit of text create problems for analysis.

Both DDII-Aruba and DDII-Russia studies specified categories of news prior to the coding procedure based on destination image theory, previous research, and the
nature of the textual materials collected. These categories can be considered as standardized for any particular DDII project. However, a category set would differ from project to project; thus, the issue of standard categories as described by Pool (1959:213) is unresolved. The problem of identifying the set of categories that would be all-inclusive and describe the variety of media topics with respect to a particular destination merits a separate research. If the universal category set for all destination types is not attainable or just not practical to construct, it should be considered whether destinations can be classified by type (e.g., “sea, sand, and sun” or “cultural”), and whether a set of standard categories can be established for each destination type. If such category sets are obtained, the research then will strictly follow the substitution model delineated by Weber (see section 3.3), when categories are pre-specified prior to the coding process based solely on the relevant theories. From the practical aspect, the process of the DDII construction will be much easier, speedier, and more acceptable for the destination DMOs.

Coding procedure for constructing the DDII can be tedious and time consuming. In order to speed things up, computer-assisted methodology for constructing the DDII is an obvious thing to look into. The question of whether automated content analysis is too simplistic and unreliable for sophisticated interpretation of texts is still under discussion and is inherently connected to the preference for quantitative or qualitative epistemologies in content analysis (Neuendorf, 2002; Neuman, 1997; Newbold et al., 2002). The debate primarily centers on “manifest versus latent content” issue (Woodroom, 1984), with the concern that computerized measurement of content invariably misses such latent aspects of the text as figures of speech, irony, tone, colloquialisms, etc. (Morris, 1994). Yet, Duriau and Reger (2004) noted that human coders also exhibit low reliability for latent content, and significance of the latent content might be overestimated in certain areas. In the last 20 years a number of computer-assisted text analysis programs have dramatically increased (Krippendorff, 2004; Neuendorf, 2002). However, studies noted that the usage of computer programs for text analysis is hindered by the lack of functionality of any given software product in certain areas. (Zuell & Landmann, 2004). The lack of convenience and efficiency is due to an enormously wide range of possible content analysis applications, which makes it
impractical to create a program which can support all conceivable operations for all types of content analysis. Thus, it would be a challenge to develop a computer-assisted methodology for constructing DDII for various destinations using digital data from media archives. Such a methodology is though to significantly shorten the content analysis projects of DDII construction.
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Rosstat (2004). *Tourism and tourist resources in Russia, official publication*. Moscow, Russia: Statistics of Russia.


Appendix A. DDII-Russia Sources: “The Times”

The following snapshots show the information about media source *The Times* as provided by the LexisNexis Academic database, as well as paper and article formats.

DDII-Russia Sources: “The Times.” Page 1-1
Appendix B. DDII-Russia Sources: “The Guardian”

The following snapshots show the information about media source \textit{The Guardian} as provided by the LexisNexis Academic database, as well as paper and article formats.
The paper has maintained a radical, left of centre editorial stance ever since - but has kept equally firmly to the famous edict of the man who brought it to international prominence, Charles Prestwich Scott. In the paper's 1921 mission statement Prestwich stated: 'Its primary office is the gathering of news. At the peril of its soul it must see that the supply is not tainted. Neither in what it gives, nor in what it does not give, nor is the mode of presentation, must the unclouded face of truth suffer wrong. Comment is free, but facts are sacred'.

**PUBLISHER:**
Guardian Publications, Limited
119 Farringdon Road
London, England EC1R 3ER

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Copyright 1994 Guardian Newspapers Limited
The Guardian
February 3, 1994

SECTION: THE GUARDIAN FEATURES PAGE; Pg. 13
LENGTH: 280 words

HEADLINE: MUSICIAN OF RECORD;
Obituary: Numa Labinsky

BYLINE: GERMAIN LEWIS

BODY:
COUNT Alexander Numa Labinsky, founder and head of Nimbus Records, the first company to abandon LPs for compact discs, has died at the age of 68. He was a singer - under the name Shura Gehman - recording pioneer, and creator of the Nimbus Foundation for the Performing Arts, with its own 550-seat concert hall opened by Prince Charles last year in the company’s grounds at Monmouth. He thought of himself principally as a singer of lieder (in both bass and alto registers). From this developed his interest in production. His company recorded Vlado Perlemuter and Shura Cherkassky, and, among younger artists, Bernard Roberts, Martin Jones and George Benjamin.

He became increasingly involved in the last 20 years with new recording
company to abandon LPs for compact discs, has died at the age of 68. He was a singer - under the name Shura Gehrman - recording pioneer, and creator of the Nimbus Foundation for the Performing Arts, with its own 550-seat concert hall opened by Prince Charles last year in the company's grounds at Monmouth. He thought of himself principally as a singer of lieder (in both bass and alto registers). From this developed his interest in production. His company recorded Vlado Perlemuter and Shura Cherkassky, and, among younger artists, Bernard Roberts, Martin Jones and George Benjamin.

He became increasingly involved in the last 20 years with new recording processes - first vinyl discs, then "direct to disc" recording, compact disc and CD-ROM, and lately, Video-CD. (He thought sound alone had a limited future.) His company had great success, including its own American plant.

Geraint Lewis

LANGUAGE: English

ISSN: 0261-3077

FILE-NAME: GUARDN

REGIONS OF COVERAGE: /Region of Coverage/Europe/United Kingdom /Region of Coverage/United Kingdom

PUBLICATION TYPE: /Source Type/News/Newspapers

NEWS & BUSINESS SUBJECTS: /Topics/General News Sources
Appendix C. DDII-Russia Sources: “The Independent”

The following snapshots show the information about *The Independent* media source as provided by the LexisNexis Academic database, as well as paper and article formats.
The following Sections frequently appear in the The Independent:
* NEWS - National news stories from the United Kingdom. Includes a special focus on Parliamentary activities
* FOREIGN NEWS - International news stories
* GAZETTE - Includes Obituary and a calendar of the royal family's social engagements
* ARTS - News and events in the arts. Includes feature pieces on artists, musicians and performers, reviews on films, plays, operas and ballets and highlights on upcoming cultural festivals
* LAW - Includes discussions on current laws, rules, regulations and topics of interest to the legal profession
* COMMENT - Opinion pieces written by the editorial staff and letters from readers
* BUSINESS - Reports on both local and international business and finance. Includes summaries of market performances and discussions on trends and developments
* SPORT - Sporting news and events

Other feature sections include: Health, Science and Technology, Media, Architecture, Living, Focus and Fashion.

**PUBLISHER:**
Newspaper Publishing PLC
40 City Road
London, England EC1Y 2DB

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<th>Description</th>
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</thead>
<tbody>
<tr>
<td>CORRECTION</td>
<td>Contains the text of a correction issued by the publisher.</td>
</tr>
<tr>
<td>CORRECTION-DATE</td>
<td>Contains the date that the correction was published.</td>
</tr>
<tr>
<td>COUNTRY</td>
<td>Contains any country names indexed from the document.</td>
</tr>
<tr>
<td>DATE</td>
<td>Contains the publication date.</td>
</tr>
<tr>
<td>HEADLINE</td>
<td>Contains all headings and subheadings which describe a story</td>
</tr>
<tr>
<td>HLEAD</td>
<td>Is a group segment consisting of the HEADLINE, HIGHLIGHT and LEAD segments.</td>
</tr>
<tr>
<td>LANGUAGE</td>
<td>Contains the language in which the document appears online.</td>
</tr>
<tr>
<td>LEAD</td>
<td>Contains the first few sentences or paragraphs of the story's text.</td>
</tr>
<tr>
<td>LENGTH</td>
<td>Contains the approximate number of words within the text of the document.</td>
</tr>
<tr>
<td>SUBJECT</td>
<td>Contains subject terms indexed from the document.</td>
</tr>
<tr>
<td>LOAD-DATE</td>
<td>Contains the date the document was loaded onto the LexisNexis service.</td>
</tr>
</tbody>
</table>

CORRECTION = mistake w/10 article
CORRECTION-DATE = 4/15/2003
COUNTRY(Sweden)
DATE = 2/25/03
HEADLINE = machine or energy
HLEAD = food and peace
LANGUAGE = English
LEAD = Union w/5 environment
LENGTH > 100
SUBJECT = medical research
LOAD-DATE = 4/15/2003
ORGANIZATION
Contains any organization names indexed from the document.
ORGANIZATION(Red Cross)

PUBLICATION
Contains the publication name.
Publication(The Herald)

SECTION
Contains the name of the section, subsection and the page number on which the story begins.
SECTION(health)

TERMS
"*Includes one or more of the following indexed segments: COMPANY, COUNTRY, GEOGRAPHIC, INDUSTRY, ORGANIZATION, PERSON, SUBJECT, TICKER and TYPE*
TERMS(entertainment and Ohio)

SPECIAL-CHAR:
The following titles frequently appear in the SECTION segment of The Independent:

HOME NEWS -- Covers local news stories of Great Britain. Includes special focuses on Parliament's activities.

FOREIGN NEWS -- Covers international news stories. Periodically includes the following columns - Around the World, Out of USSR, Out of the West.

GAZETTE -- Includes Obituary and a calendar of the royal family's social engagements.

ARTS -- Covers news and events in the arts. Includes feature pieces on artists, musicians and performers, reviews on films, plays, operas and ballets and highlights on upcoming cultural festivals.

LAW -- Includes discussions on current laws, rules, regulations and topics of interest to the legal profession.

EDITORIAL -- Opinion pieces written by the editorial staff and letters from readers.
BUSINESS & CITY -- Reports on both local and international business and finance. Includes summaries of market performances and discussions on trends and developments.

SPORT -- Covers sporting news and events. Other feature sections include: Health, Science and Technology, Media, Architecture, Living, Focus and Fashion.

SAMPLE-DOC:

Copyright 2004 Newspaper Publishing PLC
The Independent (London)

September 17, 2004, Friday

SECTION: First Edition; FEATURES; Pg. 5
LENGTH: 796 words
HEADLINE: CIVILISATIONS BUILT ON SAND
BYLINE: THOMAS SUTCLIFFE

BODY:

When I say that the British Museum has been brave in mounting its new exhibition, Sudan: Ancient Treasures. I hope it will be understood that...

quote
sophisticated enough to endure themselves in an essentially hostile landscape.

GRAPHIC:
Buried treasure: the Kushite pyramids at Meroe are evidence of a sophisticated culture

LANGUAGE: ENGLISH
COMPANY: DOCTORS WITHOUT BORDERS (57%);
ORGANIZATION: DOCTORS WITHOUT BORDERS (57%);
COUNTRY: SUDAN (78%); AFRICA (78%); IRAQ (57%); ASIA (57%);
COUNTRY: SUDAN (78%); AFRICA (78%); IRAQ (57%); ASIA (57%);
SUBJECT: MUSEUMS & GALLERIES (90%); EXHIBITIONS (90%); ART & ARTISTS (78%);
ENTERTAINMENT & ARTS (78%); RELIEF ORGANIZATIONS (56%);
PERSON: DAVID HARE (55%);
LOAD-DATE: September 17, 2004

ISSN: 0951-9467
FILE-NAME: INDPNT

REGIONS OF COVERAGE: Region of Coverage/Europe/United Kingdom/Region of Coverage/United Kingdom
PUBLICATION TYPE: Source Type/News/Newspapers
NEWS & BUSINESS SUBJECTS: Topics/General News Sources
EXCLUSIONS: Stock market and performance listings, sport scores, racing results, weather reports, Education section.
Appendix D. Coding Guidelines: Favorability

Table 5.1 through Table 5.8 and Table A.1 through Table A.5 constitute the coding guidelines which were used in the process of category and favorability coding and in estimating the reliability of coding by the two independent coders.

Table A.1 Favorability coding: Culture & History

<table>
<thead>
<tr>
<th>Category</th>
<th>Favorable</th>
<th>Unfavorable</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTS</td>
<td>Classical: The power in Russia's heart; LPO RIMSKY-KORSAKOV FESTIVAL ROYAL</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FESTIVAL HALL LONDON; The Independent, 12/16/1998</td>
<td></td>
</tr>
<tr>
<td></td>
<td>From Russia with love, lust and licentiousness; The Times, 1/14/2000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>THE GORBACHEV ERA: ON THE TRAIL WITH RUSSIA'S COMEBACK KID;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Jonathan Steele, who covered the climax of the perestroika years for the</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Guardian, introduces a six page report with an account of the new Gorbachev;</td>
<td></td>
</tr>
<tr>
<td>HISTORY</td>
<td>The spy who loved me; Kim Philby, Britain's notorious KGB mole, fled to</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Moscow in 1963, where his last years were brightened by Rufina, his Russian</td>
<td></td>
</tr>
<tr>
<td></td>
<td>wife. She tells Geraldine Norman of their life together; The Independent,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7/15/1994</td>
<td></td>
</tr>
<tr>
<td>CUSTOMS</td>
<td>&quot;Buck-naked and up for a good beating, all Russians - even mafiosi - are</td>
<td></td>
</tr>
<tr>
<td>Russian banya</td>
<td>equal in the banya…” From Richard Beeston in Moscow, The Times, 1/14/1998</td>
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</tbody>
</table>

Table A.2 Favorability coding: Economic Development

<table>
<thead>
<tr>
<th>Category</th>
<th>Favorable</th>
<th>Unfavorable</th>
<th>Neutral</th>
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</thead>
<tbody>
<tr>
<td>YELTSIN'S</td>
<td>THE OTHER SIDE OF THE COIN; The West is astonished by the rate of Russia's</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FINANCIAL</td>
<td>Funds look to Russia, with love; The Times, 8/17/1996</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Russia in a crisis claims its victims; The Times, 8/29/1998</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Russian debt; The Times 3/17/1999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INDUSTRY</td>
<td>BAE SETS UP RUSSIAN CAR PLANT DEAL; Sites sought for building up to 150,000</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Rovers a year; The Guardian, 1/14/1992</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gas bills may hit new high after Russia cuts supplies; The Times, 1/2/2006</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Science&amp;Technology: Are my downloads from Russia too cheap to be legal?;</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cyberclinic; The Independent, 6/7/2006</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PURCHASE</td>
<td>Russians invade Riviera; The Time, 5/25/1995</td>
<td></td>
<td></td>
</tr>
<tr>
<td>POWER</td>
<td>Russian prosperity? The Times, 7/23/2001</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table A.3 Favorability coding: Social Issues

<table>
<thead>
<tr>
<th>Category</th>
<th>Favorable</th>
<th>Unfavorable</th>
<th>Neutral</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRANSFORMATION</td>
<td>Why Russian school is cool; The Times, 11/10/1999.</td>
<td>This must be a really big drinker, even worse than me, they think with grudging reverence; The Times, 2/15/1999.</td>
<td>Big trouble in Little Moscow. But so what? The Times, 6/23/1997. Russian Orthodox Church has been attacked for interfering in state matters;</td>
</tr>
</tbody>
</table>
Table A.4 Favorability coding: Internal Affairs

<table>
<thead>
<tr>
<th>Category</th>
<th>Favorable</th>
<th>Unfavorable</th>
<th>Neutral</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLITICAL LIFE</td>
<td>Putin is the strongman that the Russians need; <em>The Times</em>, 6/24/2003</td>
<td>BLACK HUNDREDS AND THOUSANDS; Poison has come out of perestroika. The fascists are looking for a strong leader to save Mother Russia and the communists await the new Soviet state. Seumas Milne on claims of a potent red-brown alliance; <em>The Guardian</em>, 10/23/1992</td>
<td><em>The Times</em>, 12/18/1995; *Russia PUTS YELTSIN ON COURSE FOR SECOND TERM; <em>The Guardian</em>, 7/4/1996</td>
</tr>
<tr>
<td>HUMAN RIGHTS</td>
<td>EUROFILE: BIG ISSUE: TURMOIL IN RUSSIA / COMMENT ON MIKHAIL KHODORKOVSKY’S ARREST AND THE RESIGNATION OF PUTIN’S CHIEF OF STAFF; <em>The Independent</em>, 11/1/2003. Real lives: A spy out in the cold: Tomorrow a Moscow court will accuse the defector Alexander Litvinenko of corruption. But the truth is, he tells Nick Paton Walsh, that he is a former KGB man forced to flee to the west when his masters turned against him - and now they want their revenge; <em>The Times</em>, 1/2/2006</td>
<td>RUSSIAN SOLDIERS ON THE EASTERN EDGE OF GROZNY; <em>The Independent</em>, 12/16/1999 G2: First two bitter wars in Chechnya. Then a savage massacre in Beslan. Now Russia’s nightmare is coming true: an explosion of Islamic militancy across an entire region; <em>The Guardian</em>, 11/30/2005</td>
<td></td>
</tr>
</tbody>
</table>
Table A.5 Favorability coding: Foreign Affairs

<table>
<thead>
<tr>
<th>Category</th>
<th>Favorable</th>
<th>Unfavorable</th>
<th>Neutral</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOREIGN RELATIONS</td>
<td>NATO AND ALARM BELL IN MOSCOW;</td>
<td>Real security will require a real European solution;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TIME FOR TELLING HOME TRUTHS;</td>
<td>International relations between the US and Russia are at a critical stage; The Guardian, 5/8/1995</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Russia lays claim to Arctic oil and gas; The Guardian, 12/8/1999.</td>
<td></td>
</tr>
<tr>
<td>INTERNATIONAL CONFLICTS</td>
<td>SERBS DEFY RISING WORLD ANGER: Russia backs extra force to end war; The Guardian, 5/17/2003. 2am: Heaviest bombing of Iraq so far as Russia withdraws its envoy;</td>
<td>RUSSIA FACES SANCTIONS OVER CHECHEN BLITZ; The Guardian, 7/16/1994.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>DEFENCE WORKER CHARGED WITH NINE COUNTS OF SPYING FOR RUSSIA; The Independent, 3/25/2002</td>
<td></td>
</tr>
<tr>
<td>UK</td>
<td>Leading Article: TO RUSSIA WITH POMP; The Guardian, 7/16/1994.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SVETLANA STEPCHENKOVA

On December 22, 2008 Svetlana Stepchenkova successfully defended her dissertation for a doctoral degree in Hospitality and Tourism Management at Purdue University with emphasis on Destination Marketing and Branding. Svetlana holds a Master’s degree in Hospitality and Tourism Management and Graduate Certificate in Statistics from Purdue University and a Bachelor of Science degree in Applied Mathematics from Moscow State University, Russia. She studies destination image as a competitive factor in destination management and has proposed a concept of Dynamic Destination Image Index to test a hypothesis of rational consumer behavior in models of tourism demand. Svetlana was involved in industry-related projects that included quality evaluations of Convention and Visitors Bureau (CVB) websites in the U.S. and Canada, as well as in a number of grant-supported studies in the areas of digital identity management, Internet addictive behaviors, and online data security.

EDUCATION

Doctor of Philosophy – Hospitality and Tourism Management, May 2009
Purdue University, West Lafayette, IN, USA
Specialization: Destination Marketing and Branding
GPA (transcript): 3.86/4.0

Purdue University, West Lafayette, IN, USA
Specialization: Applied Statistics

Master of Science – Hospitality and Tourism Management
Purdue University, West Lafayette, IN, USA
Specialization: Tourism
Master’s Thesis: “Russia’s Destination Image among American Pleasure Travelers”
GPA (Plan of Study): 4.0/4.0
Bachelor of Science – Applied Mathematics
Moscow State University, Moscow, Russia
Specialization: Operations research and systems analysis
Thesis: “Mathematical model of vegetation growth under variable temperature with controlled growth functions”
GPA (transcript): 4.45/5.0

SYNOPSIS OF ACADEMIC WORK EXPERIENCE

Grant Project Manager, July 2007-December 2008
Department of Computer Science, Purdue University
National Science Foundation Grant “Improving the Privacy and Security of Online Survey Data Collection, Storage, and Processing” (CNS-0627488)

Graduate Teaching Instructor, August 2006-May 2007
Dept. of Mathematics, Purdue University
Instructor of MA 153 – Algebra and Trigonometry. Two semesters, two sections per semester

Research Intern, May-August 2006
Destination Consultancy Group, LLC, www.dcgconsulting.com

Graduate Research Assistant, July 2005-June 2006
Dept. of Hospitality and Tourism Management and the Center for Education and Research in Information Assurance and Security (CERIAS), Purdue University. National Science Foundation, “Design and Use of Digital Identities” (NSF0428554)

Graduate Research Assistant, April-December 2004
Dept. of Hospitality and Tourism Management, Purdue University

SYNOPSIS OF VARIOUS TEACHING EXPERIENCE

Graduate Teaching Instructor, August 2006-May 2007
Dept. of Mathematics, Purdue University
Taught two sections of Algebra/ Trigonometry (MA 153) for two semesters

Project Management Seminar Instructor, April-May 2003
PhysTech Co., Ltd, Moscow, Russia
Introduced project management methods into corporate culture
English Language Teacher, January-May 1999
Private school in Moscow, Russia.

Educational Assistant Substitute, 1996-1997
School district 509 J, Corvallis, OR.
Worked in elementary and middle school classrooms, assisted learning and correction groups

LLA Tutor, 1995-1997
Laubach Literacy Action, Corvallis, OR.
Volunteered services to the local community: worked as a tutor with Korean, Chinese, and Russian learners of English

EFL Teacher Trainer, 1994-1995
Institute of Advanced Education, Moscow, Russia.
Taught “Contemporary Methods in English Language Teaching” course to secondary school teachers of English, in English

EFL Teacher, Class Supervisor, 1991-1995
Secondary school #1309, Moscow, Russia
Worked full-time with 1-4 grade students, classroom of 20-25 students

SYNOPSIS OF INDUSTRY EXPERIENCE

Head of Marketing Department, November 2001-May 2002
PhysTech Co., Ltd, Moscow, Russia

Head of Sales, 1999-2001
PhysTech Co., Ltd, Moscow, Russia

Project Manager, 1998-1999
PhysTech Co., Ltd, Moscow, Russia

C and Excel Programmer, 1997-1998
Evergreen Technologies, Inc., Corvallis, OR

Fortran Programmer, 1984-1991
Moscow Radio-Technical Institute, Moscow, Russia
PUBLICATIONS

Refereed in print and in press


Refereed under review


Refereed conference presentations and proceedings


Research reports

LIST OF REFERENCES
APPENDICES
VITA