CHAPTER 5: RESEARCH METHOD

5.1 INTRODUCTION

In Chapter 4, previous research studies on female role portrayals conducted in different countries were discussed. The manner in which women are portrayed in various advertising media was also described. The aforementioned research studies used content analysis as their primary research method; some also incorporated additional methods. Content analysis is also the research method that is applicable to the current study, which aims to determine the role portrayals that are used in magazine and television advertising in South Africa.

To place content analysis in context, Chapter 5 commences with an introduction to marketing research, which includes the nature and role of marketing research. The various methods used in advertising research are presented, followed by the method of content analysis. The discussion includes the requirements for effective content analysis, the various applications as well as the process commonly followed in conducting a content analysis.

The steps of the content analysis process are presented in detail, commencing with the theory and conceptualisation of the present study. The theoretical background to the units of analysis and the sampling process that are applicable to the current study are then presented. The coding instruments, including the development of the codebook and coding forms that represent the research instrument, are discussed. Thereafter a brief description of the pilot study is presented before the final coding process is highlighted. Finally, the chapter concludes with an explanation of the processes of data analysis and reporting.

5.2 THE NATURE AND ROLE OF MARKETING RESEARCH

Marketing research encompasses all forms of research in the marketing activities of the organisation. Research is conducted in order to increase knowledge; and it enables the organisation to make better decisions, thereby aiding the marketing planning process

(Saunders *et al.*, 2007:5). The results of marketing research are used in a multitude of applications, such as product development and testing the effectiveness of advertising.

The research practice of studying the diverse aspects of marketing is, like any other form of research, an organised process. Arens *et al.* (2011:229) and Leedy and Ormrod (2005:2) assert that research is the systematic process of collecting, noting, analysing and evaluating information - with the aim of increasing the available knowledge of the object and/or phenomenon of interest.

In the current study, the aim is to determine the various roles portrayed by female characters in advertisements and commercials. Therefore, the results of the present study will enhance the knowledge of advertising, particularly on how marketers portray women in the South African context, in seeking to convey their advertising messages.

As can be seen from the above discussion on marketing research, some common elements are reiterated, such as the systematic nature of marketing research; that it provides information; and aids in the development of marketing plans. According to Zikmund and Babin (2010:5), marketing research searches for the "truth about marketing phenomena," including the creating of ideas, evaluating marketing performance and developing a better understanding of the process of marketing.

Academics have identified various methods that may be used when conducting marketing research. McDaniel and Gates (2006:35), Tustin, Ligthelm, Martins and Van Wyk (2005:116-118), as well as Zikmund and Babin (2010:57), list the following procedures as basic research methods:

- Secondary research: research where analysis is conducted on existing data, in other words, data previously collected.
- Survey research: this is research where an interviewer questions the respondents, in order to gain data. This is normally done by using a questionnaire with a set of predetermined questions as a basis for the interview.
- Observation research: this is research in which the target people, objects or events, are observed in order to determine their behavioural patterns - without actually interviewing the subjects.

- Experimentation: this is research in the form of causal research. This examines the changes in a variable when other variables are adapted.

The current study does not involve the interviewing of respondents. It examines advertisements and commercials as forms of marketing communication, and therefore content analysis studies are classified under the heading of observation research (Zikmund & Babin, 2010:196). A more detailed description of content analysis will be presented in Section 5.4 of this chapter.

The information gained from marketing research is utilised in the development of the organisation's marketing mix strategy (Zikmund & Babin, 2010:14). To this end, various designs and methods of marketing research can be used to assimilate the information needed for effective managerial decision-making. Marketing research is also used to identify consumer needs and market segments, as well as to provide information for the development of new products (Arens *et al.*, 2011:229). Additionally, marketing research is used to evaluate the efficiency of marketing and promotional programmes.

Advertising research is one form of marketing research that is widely used to pre-test advertisements, as well as to post-test the effectiveness of advertisements (Hall, 2004:181). For example, the text and visuals used in an advertisement can be evaluated to determine whether the advertisement will reach the set advertising objectives. In the current study, the focus of the research is on the visual elements of the advertisement - such as the character and other elements in the advertisement or commercial. Advertising research is discussed in the next section.

5.3   ADVERTISING RESEARCH

Advertising research falls within the scope of marketing research. By conducting advertising research, the organisation can determine the contribution that advertising makes towards reaching marketing objectives (Shimp, 2010:282). Additionally, the organisation needs to know that the expenditure made on advertising is justified. Developing and placing advertisements in media can be expensive processes (Arens *et al.,* 2011:229). Organisations spend large percentages of their marketing budget on

advertising, and this necessitates taking steps to ensure that the advertisements will reach the target market and the objectives set out for the campaign.

The advertising research process focuses on objectively and systematically collecting, analysing and interpreting data that can be used for strategic advertising decision-making (Tustin *et al.,* 2005:151). Advertising research enables the organisation to determine whether the planned advertisement or commercial will reach its mark, and also whether current advertising campaigns are likely to be effective. Shimp (2010:283) asserts that advertising research consists of two measures, namely testing media, as well as testing the effectiveness of the advertising message.

An analysis of the theory behind advertising research indicates several similarities regarding methods and the measures used. O'Guinn *et al.* (2009:229) and Shimp (2010:283) assert that advertising research generally includes developmental research (or pre-testing), copy (or message) research and post-testing.

Research in the developmental stage occurs before advertisements are developed. This research is necessary in order to assist in the creation of advertisements. Copy research focuses on testing the advertisement before its final placement in the media; and post-testing assesses whether the advertisement has been effective in reaching its objectives.

5.3.1.1 Developmental research

Various methods for developmental research have been suggested in the literature, including focus groups, projective techniques and concept testing.

- Focus groups: a focus group consists of a small group of individuals (six to 12 individuals representative of the target audience) that discusses the advertisement in the early phase of message development. It involves facilitating a discussion to examine the effectiveness of "…prospective spokespeople… visuals and strategies, and [to] identify elements in ads that are unclear…" (Arens *et al.,* 2011:241). Alternatives to focus groups include personal or telephone interviews, where questions centre on the advertisement.

- Projective techniques: these are used to elicit the respondent's underlying feelings or thoughts. This is an indirect method, where the respondents are required to complete scenarios or stories by using their own experiences or emotions. Techniques include dialogue balloons, story construction or storytelling, and sentence or picture completion (O'Guinn *et al.*, 2009:232; Tustin *et al.,* 2005:177). Projective techniques are generally utilised in the development of advertising campaigns (Zambardino & Goodfellow, 2007:31).

- Concept testing: this can be used to pre-test various ideas for new advertisements or campaigns (Belch & Belch, 2007:751).

The results gained from developmental research can be used to create advertisements. Rough or completed advertisements are then tested via copy research, in order to determine message effectiveness before the final roll-out in the advertising media.

5.3.1.2 Copy research

Copy research is also referred to as pilot or copy testing. Copy research occurs early in the advertising research process, and because of its pre-emptive nature, the results can influence the final advertisement before its roll-out. The term "message research" is preferred to "copy research" by Shimp (2010:283), who argues that the advertising message includes more than just the verbal part; and therefore the term copy research is restrictive.

For the purpose of the chapter, the term copy research will be used to indicate research on all aspects of the proposed advertisement, thereby including both the verbal and visual aspects. Copy research, using direct questioning, aims to assess the effectiveness of an actual advertisement before its roll-out, thereby minimising the chance of the message failing to reach its objectives (Arens *et al.,* 2011:244). According to O'Guinn *et al.* (2009:242), measures to test the copy effectiveness include *inter alia* communication tests, attitude studies, recall, recognition and behavioural tests.

A communication test examines whether the advertisement is communicating what was intended. Attitude studies test whether an advertisement causes any change in the attitude of the respondent after exposure to the advertisement.

Recall tests assess whether the advertisement is memorable, and this is one of the most commonly used techniques to test advertising effectiveness (Mehta & Purvis, 2006:49). Similar to recall tests, recognition tests go a step further to determine whether the respondents recognise not only the advertisement, but the brand as well. Behavioural tests (also referred to as conative techniques) focus on the intended behaviour, such as purchase intent (Beerli & Santana, 1999:15).

A well-known behavioural test is test marketing. Test marketing is also referred to as pilot testing. It entails placing an advertisement in a particular medium in an isolated area to test the effectiveness thereof on a larger scale (Arens *et al.,* 2011:243). The primary measure of importance is buying intent. Pilot tests can be conducted in the field, in a laboratory or electronically. In field testing, actual advertisements are run in a small region of the actual market, providing a "real-world test" and a more natural response than could be obtained in a laboratory test (Kolb, 2008:176).

Laboratory tests, where the respondents are exposed to the advertisement in a research laboratory, are beneficial in terms of higher control over external variables, but lack the authenticity of a field test (Zikmund & Babin, 2010:220). Electronic test marketing is an experimental method, where selected respondents' exposure to advertisements is controlled and their subsequent buying behaviour can be tracked. One such experimental form involves the Internet, which is typified as an "emerging method" where the focal point centres on the purchase intent (O'Guinn *et al.*, 2009:254).

5.3.1.3 *Post-testing of advertisements*

Post-testing of advertisements focuses on determining the effectiveness of the message after it has been launched in the media. As such, post-testing determines whether advertisements have reached the advertising objectives (Shimp, 2010:284). Similar to copy testing post-testing measures awareness, recall and communication, recognition, attitudes and behaviour, albeit on a considerably larger scale. For example, attitude tests as post-tests gauge the effectiveness of the campaign planned to develop a positive image for the brand (Arens *et al.*, 2011:246).

Post-testing may be conducted in various ways. Methods used in post-testing include direct response testing, sales, single-source data and tracking studies (O'Guinn *et al.*, 2009:255). Direct response advertising requires a response from the audience, delivering response measures that indicate the effectiveness of the direct advertisement. Estimating the exact sales derived from advertising is difficult, if not impossible, as there are many factors impacting on product sales. Sales are, nevertheless, still used to gauge the effect of advertising.

A superior method to determine advertising effectiveness on behaviour is single-source research. Single source data are derived from tracking household consumption behaviour by combining store scanner data, and data such as household television commercial exposures (Wells *et al.*, 2006:541). The integration of such data provides a realistic picture of the actual impact of advertising on household buying behaviour. Analysing the results of advertising campaigns or individual messages also involves tracking studies. Tracking studies usually determine aspects such as attitudes, awareness, recall, interest and behaviour, as well as the intent to buy (Belch & Belch, 2007:621).

The elements (for example visuals or text) contained in advertisements and commercials can be investigated by using content analysis research (Spicket-Jones, Kitchen & Barnes, 2006:19). The method of content analysis is often used for conducting advertising research (Harwood & Garry, 2003:479; Hayes & Krippendorff, 2007:77).

Content analysis, which is the research method applicable to the current study, will be described next.

5.4   CONTENT ANALYSIS

The contents of advertisements in magazines and on television can be analysed using content analysis as a research method. Various researchers differ in regard to the nature of content analysis as a qualitative or quantitative method. Saunders *et al.* (2007:470) assert that content analysis is a form of qualitative research because of its tendency to be used to analyse non-numerical data. Additionally, the qualitative research process entails

identifying categories and patterns that emerge from the data under scrutiny (Leedy & Ormrod, 2005:95).

A majority of authors include a quantitative element in their definition of content analysis (Neuendorf, 2002:10; Riffe *et al.*, 2005:25; White & Marsh, 2006:23; Zikmund & Babin, 2010:196)*.* In particular, the emphasis is placed on the scientific nature of content analysis that sets it apart from "more qualitative or interpretive message analyses" (Neuendorf, 2002:10). There is a general consensus on the application of content analysis for message analysis and its widespread use in the analysis of both advertisements and commercials as marketing communication elements.

Harwood and Garry (2003:480) assert that content analysis may be used in both qualitative as well as quantitative research, being "qualitative in the development stages of research and quantitative where it is applied to determine the frequency of phenomena of interest." Krippendorff (in White & Marsh, 2006:35) agrees with this stance and elaborates by stating that the qualitative nature of content analysis focuses on the meaning of content; whereas, the quantitative aspect serves to make conclusions about the content in terms of the context wherein it is used.

The current study focuses *inter alia* on the frequencies of particular role portrayals of women in advertising. As such, the current study employs quantitative content analysis as a research method. In this section, content analysis as a research method is defined, and the requirements for and the applications of content analysis are described.

5.4.1 Content analysis as a research method

As with all research methods, content analysis is a systematic process. Its primary focus is on examining communication content (Riffe *et al.*, 2005:23; Zikmund & Babin, 2010:196)*.* The current study analyses marketing communication content, namely advertisements and commercials. Holsti (in Harwood & Garry, 2003:481) states that content analysis studies "objectively quantify the content of communication between a sender and a receiver."

The application of content analysis for studying communication messages is echoed by Berelson (in Krippendorff, 2004a:19). This author defines content analysis as "the objective, systematic, and quantitative description of the manifest content of communication."

Krippendorff (2004a:18) defines content analysis as a research method that makes "replicable and valid inferences from the text (and other meaningful matter) to the contexts of their use." The development of clear categories is crucial in a content analysis study. Kassarjian (1977:12), who is widely regarded as a pioneer in the field of content analysis, goes so far as so assert that the quality of content analysis research is dependent on the description of the categories, as the categories represent the conceptual plan of the content analysis study.

To adhere to this important aspect of content analysis, the present study incorporates carefully defined categories of the aspects under scrutiny, in particular the role portrayals. The results of a content analysis study are used to make inferences about the body of information studied. The communication units under scrutiny in content analysis are quantitatively measured, and these units of measurement are, by definition of content analysis, message units (Neuendorf, 2002:14). A distinction needs to be made between data collection units and analysis units (described in detail in Section 5.6 in this chapter).

The unit of data collection is the "element on which each variable is measured", whereas the unit of analysis is the "element on which data are analysed, and for which findings are reported" (Neuendorf, 2002:13). Content analysis studies need to adhere to particular requirements. These requirements will be discussed in the next section.

5.4.2 Requirements for content analysis

For a content analysis study to be effective, specific requirements have to be met. Berelson (in Krippendorff, 2004a:19) proposes the following as requirements for effective content analysis:

- Objectivity: the objectivity requirement relates to the definition of categories for the content analysis. The categories for content analysis need to be so accurately defined

that, when applied by another researcher to the same data, the results will be the same. In the current study, the coder training (refer to Section 5.9) includes *inter alia* testing the category definitions and ensuring objectivity.

- Systematisation: the requirement of systemisation stipulates that the categories, as well as the content to be analysed, need to be identified according to a consistent set of controls. A systematic study also needs to be scientifically relevant and the categories must be specified in advance, in order to provide a foundation for exact measurements (Riffe *et al.,* 2005:25). The codebook and coding forms that are used in the current study assist in providing a systematic design.

- Quantification: the data in the content analysis have to conform to the criteria of the statistical analysis in order to adhere to the requirement of quantification. This is true for both the summaries of the results, as well as the interpretation of the findings. The process involved in quantitative content analysis is therefore numerical, as the research has to deliver the frequencies of occurrences of the specified categories (Neuendorf, 2002:14). Specific statistics to describe the findings are applicable to the current study (refer to Section 5.11).

Content analysis research has various applications. These will be briefly outlined in the next section.

5.4.3   Applications of content analysis

The research method of content analysis is used in various fields: from psychometrics to analyses of the Internet. As mentioned previously, content analysis is primarily used in analysing communication. Various levels of analysis are identified, such as images, words or role portrayals (Kolbe & Burnett, 1991:243). Additionally, content analysis can be conducted in various contexts, such as psychometric analysis, examining minority portrayals and gender roles (Neuendorf, 2002:192-206). Of the various contexts, the analysis of gender roles in advertising is relevant to the present study, and will therefore be discussed in more detail.

The roles of males and females in communication media are frequently and widely analysed (Neuendorf, 2002:201). Chapter 4 provided a detailed description of female roles
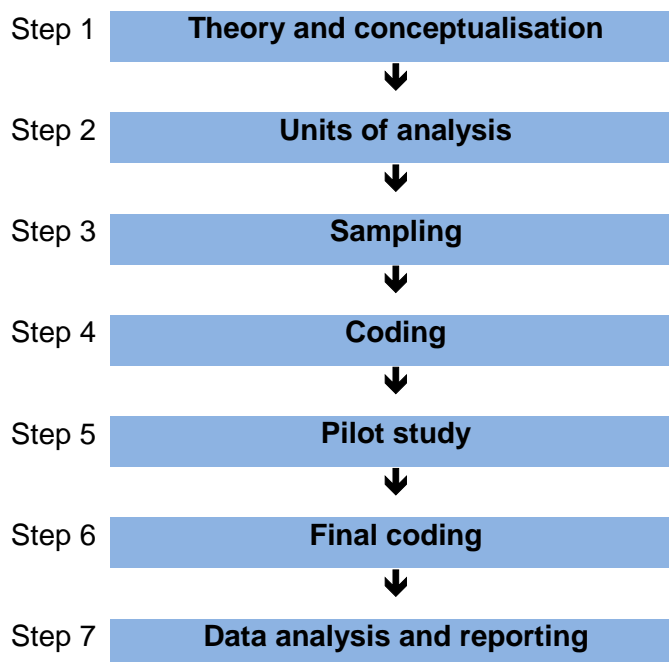
across magazine advertisements and television commercials from studies conducted worldwide. Analysis of advertising content includes the objectives of analysing format and contents, in order to develop more effective advertisements, as well as attempting to determine the effect that images in advertising have on society. Typically, studies focusing on the portrayals of women or ethnic groups in advertising have this aim.

Content analysis studies generally follow a particular structured process. This will be outlined next.

5.4.4 The content analysis research process

For the purpose of this study, the research process for a content analysis is presented in seven steps and depicted in Figure 5.1.

Figure 5.1   The content analysis process

Step 1	**Theory and conceptualisation**
Step 2	**Units of analysis**
Step 3	**Sampling**
Step 4	**Coding**
Step 5	**Pilot study**
Step 6	**Final coding**
Step 7	**Data analysis and reporting**

Source: Adapted from Neuendorf, 2002:50-51 and Riffe *et al.,* 2005:55

The content analysis process commences with a conceptualisation, followed by an exposition of the units of analysis relevant to the study. The sampling procedures used in the study are described, as well as the coding processes. A pilot study is conducted before

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the final study, after which the final coding is completed, incorporating any necessary changes, as dictated by the pilot study.

The research process concludes with the analysis and reporting of the data. Each of the content analysis research process steps, as applicable to the current study, will be discussed in the subsequent sections, commencing with theory and conceptualisation.

5.5   STEP 1: THEORY AND CONCEPTUALISATION

The theory and conceptualisation of the content analysis include the theoretical background to the study, which was reflected in the literature review (refer to Chapters 2 to 4). Theory and conceptualisation refer to what will be analysed, as well as the reasons for the analysis (Neuendorf, 2002:50). The primary objective of the present study is to identify the roles portrayed by women in South African magazine advertisements and television commercials, and the literature review that focused on any literature relevant to this topic.

No recent studies have been conducted on female role portrayals in South Africa, and no recent studies that included both magazine advertisements and television commercials was found in an extensive literature review. Various authors have researched the field of female roles in magazine advertisements and gender role portrayals in television commercials, and the findings of these studies, as they pertain to the current study, were described in Chapter 4. Past research findings have been used as a basis to develop the role categories that are examined in the current study.

In addition to the study's primary focus on female roles, several secondary research objectives have been set forth, namely:
• To establish the incidence of female models appearing in magazine advertisements and television commercials in relation to the overall number of advertisements in the sample;
• To examine the nature of the visual portrayals of female models in magazine advertisements and television commercials in terms of:
    o the number of photographed depictions or real-life appearances in relation to the overall number of magazine advertisements and television commercials;

- the number of animated/illustrated depictions in relation to the overall number of magazine advertisements and television commercials.

- To examine the ethnic representation of women in magazine advertisements and television commercials in terms of:
  - the frequency of representation of African, coloured, Indian and white women in the overall sample;
  - the frequency with which multiple ethnic orientations are depicted in one advertisement/commercial.

- To determine the extent to which rational and/or emotional advertising appeals are used in magazine advertisements and television commercials.

- To investigate the number of portrayals of female celebrities in magazine advertisements and television commercials;

- To determine the frequency with which women are depicted in multiple roles in one advertisement/commercial;

- To determine the number and type of different products and/or service categories in the advertisements featuring women;

- To determine the product or service categories advertised for the various roles;

- To report any new role portrayals that may evolve from the study.

From the objectives listed above, the specific variables of importance to the study include the nature of visuals, the ethnicity of the female characters, the advertising appeal used, whether the character is a celebrity and the product/service categories advertised using females.

The theoretical discussion on these topics was presented in Chapter 4. The category descriptions of each of the variables in the study are detailed in a codebook (refer to Section 5.8), which is used in conjunction with the coding forms. Different types of units exist in the content analysis and these will be described next.

5.6 STEP 2: UNITS OF ANALYSIS

The required data for the study are contained in magazine advertisements and television commercials. There are large numbers of magazines and various television channels that

carry numerous advertisements and commercials. In order to simplify the content analysis, the advertisements need to be broken down into smaller sections. According to Neuendorf (2002:72) and White and Marsh (2006:29), data for content analysis can be broken down into units of sampling, data collection units and analysis units.

5.6.1 Sampling units

Units of sampling have the purpose of identifying the population for the study and provide the basis for the sampling process. According to Krippendorff (2004a:98), sampling units are the "units that are distinguished for selective inclusion in an analysis." The sampling units are therefore chosen from the complete body of content. In the present study, the sampling units are the respective magazines and the television channels.

5.6.2 Data collection units

The data collection units are the units that are used to measure the variables in the content analysis (White & Marsh, 2006:29). As such, the data collection units are categorised independently. Krippendorff (2004a:100) refers to data collection units as recording units, and asserts that they are "typically contained in sampling units." In the current study, the units of data collection are the advertisements and commercials that are displayed or broadcasted in the different media.

5.6.3 Analysis units

The units of analysis are the variables that are statistically analysed in order to accomplish the research objectives (Riffe *et al.*, 2005:68). The units of analysis in the current study consist of the variables under investigation, including *inter alia* the female character and the product categories, as outlined in the codebook and the coding forms for analysis (refer to Section 5.8).

The sampling, data collection and analysis units are all message units, by virtue of the nature of the content analysis (Neuendorf, 2002:14). In the case of the present study, the sample consists of advertising message units, for example, magazine advertisements and

television commercials. The sampling processes that can be used in a content analysis study will be discussed next.

5.7 STEP 3: SAMPLING

Analysing the content of communication, such as advertisements, starts with a sampling process. Sampling can be described as the selection of a subset of study elements from the whole population or body of communication messages (Kolb, 2008:24; Neuendorf, 2002:83). The body of advertising material available for the current study is vast. Therefore, sampling procedures are needed to select an appropriate and practically feasible number of advertisements to analyse. Various sampling concepts and methods at the disposal of the researcher will be explained next.

5.7.1 <u>Sample population</u>

The sample population is defined as, the "full set of cases from which a sample is taken" (Saunders *et al.,* 2007:205). The population for the magazine sample consists of all magazines currently available in South Africa. From this multitude of magazines, a sample is drawn using an applicable sampling method (described in Section 5.7.3 in this chapter). For the television commercials, the population consists of all South African television stations that air commercials.

5.7.2 <u>Sample frame</u>

The sample frame comprises the list of the population from which the samples are selected (McDaniel & Gates, 2006:300). The sample frame that is used for the magazine sample is the All Products and Media Survey (AMPS) list for the second half of 2008 (2008B). The AMPS list is compiled by the SAARF, and organises all magazines in terms of their readership figures.

The SAARF also conducts cumulative television channel reach (referred to as Cume Reach) studies, with resulting lists of South African television channels and the viewership

figures for the channels. The Cume Reach figures for March 2009 make up the sample frame for the television channels.

5.7.3 Sampling methods

Various sampling methods exist for use in research. Researchers distinguish between probability (random) and non-probability (non-random) sampling (Leedy & Ormrod, 2005:199; Neuendorf, 2002:83). Probability sampling has the ability to ascertain that every element in the research population has an equal chance of being selected; thereby making the results representative.

Non-probability sampling is by nature non-representative, and the probability of elements being selected cannot be guaranteed, nor can the extent to which generalisations may be limited to non-statistical arguments (Saunders *et al.*, 2007:207).

Although the present study uses non-probability sampling, probability sampling methods will be explained briefly:

- Simple random sampling: in simple random sampling, each element in the population is equally likely to be selected (Kolb, 2008:184). A straightforward example is literally choosing elements from a hat full of names.
- Stratified sampling: in stratified sampling, the population consists of distinctive groups (approximately equal in size) that need to be represented in the study, such as males and females. Therefore, equal numbers of elements from each group (stratum) should be selected to ensure representativeness. If the strata are not equal in size, the sample must be adapted to reflect the ratio of the different groups, a process that is called proportionate stratified sampling (Leedy & Ormrod, 2005:203).
- Cluster sampling: being similar to stratified sampling, cluster sampling also deals with groups, except that the groups are not homogenous. Cluster sampling usually applies to large populations or geographic areas (Kolb, 2008:186). For example, if a sample needs to be drawn from a large city, the city can be divided into smaller areas (clusters), like residential blocks. Specific residential blocks are then randomly selected - from which the sample is selected.

- Systematic sampling: in systematic sampling, the sample elements are selected on a pre-set sequence or interval, for example, every 9th element. McDaniel and Gates (2006:308) suggest the following formula to determine the sampling interval:

Sampling interval = Population / Sample size

- Multi-stage sampling: when more than one step is used in selecting a sample, it is referred to as multi-stage sampling. For example, a researcher may first use random sampling to choose a set of magazines; and then randomly select advertisements from each magazine.

The nature of the current study is more suited to non-probability sampling, as the units of analysis need to adhere to certain requirements that would not be applicable if random samples were selected. Non-probability (or non-random) sampling methods include the following:

- Convenience sampling: in convenience sampling, the sample elements are selected purely on the basis of their availability. For example, if interviews have to be conducted with shoppers in a retail store, the interviewer can choose interviewees based on their availability and willingness to participate, with no attempt at representativeness (Leedy & Ormrod, 2005:206).
- Quota sampling: this is similar to the probability method of stratified sampling. Quota sampling attempts to base the sample on important variables (Neuendorf, 2002:88). In the retail interview example above, if the interviewer chooses specified numbers of interviewees using predetermined criteria, such as age or gender, it would lead to a quota sample.
- Purposive sampling: this is also referred to as judgement sampling. This sampling method literally selects elements for a specified purpose (Leedy & Ormrod, 2005:206). For example, advertisements for a content analysis study can be selected purposefully because they contain specific elements, such as female characters.

Although the results of research based on non-probability sampling may not be generalised to the whole population, it is often used in content analysis studies. Neuendorf (2002:87) notes that this is the case when it is difficult to obtain the relevant message

content by using a random sample. For example, if the current study used a random sample of magazines, the odds that magazines with a very low incidence of advertising could be included in the sample are very good. This could lead to problems of inadequate sample size.

The present study utilises purposive sampling (for both the pilot and the final study) - in that the magazines and television channels that are included in the study are chosen specifically because they are the most popular media. Additionally, the advertisements and commercials included in the study are selected purposely because they feature women.

5.7.3.1 Sampling for magazine advertisements

The sample for current study requires magazine advertisements that contain at least one adult female per advertisement. This is in order to extract the information (data) needed to serve the research objectives. Various authors have employed circulation or readership figures as a basis for deciding on the type of sample for the content analysis (Grau *et al.*, 2007:59; Hung & Li, 2006:15; Razzouk *et al.*, 2003:121).

As stated, the present study employs purposive sampling (in the pilot study, as well as in the final study) to select the magazines from which the advertisements for the content analysis are drawn. Purposive sampling (also referred to as judgement or purposeful sampling) is used because the sample needs to be large enough. Patton (in Saunders *et al.*, 2007:232) asserts that in purposeful sampling, it is important to choose "information-rich cases", so that the sample is suitable for the requirements of the study.

The magazine sample for the study is purposefully selected to include a variety of magazine types: including general interest, male and female magazines with readership figures of 500 000 or higher according to SAARF's AMPS. As stated in Chapter 1, the sample excludes specialist publications, such as retail, sport and television guide magazines. The target audiences for specialist publications are very narrow and the study requires data from magazines with a broader readership. Weekly and monthly publications are included to explore a wider range of magazines.

For the purpose of the pilot study, back copies of the selected magazines are used. The final study includes relevant magazine issues published in the months of March and April 2009. Only the first issue of the month (for the weekly magazines) is selected, in order that the sample will consist of equal numbers of weekly and monthly magazines. Table 5.1 reflects the AMPS figures for the selected sample of magazines in a descending order.

Table 5.1   AMPS 2008B figures for magazines exceeding 500 000 in readership

	Magazine	Readership	% of adult population
1	Bona	2 218 000	7.1
2	True Love	2 175 000	6.9
3	You	2 139 000	6.8
4	Drum	2 008 000	6.4
5	Move!	1 170 000	3.7
6	People	1 031 000	3.3
7	Men's Health	854 000	2.7
8	Cosmopolitan	823 000	2.6
9	Fair Lady	758 000	2.4
10	Rooi Rose	648 000	2.1
11	FHM	619 000	2
12	O' The Oprah Mag SA	616 000	2
13	Sarie	604 000	1.9
14	Reader's Digest	570 000	1.8

Source: Adapted from South African Advertising Research Foundation (2008)

It should be noted that *Huisgenoot* was part of the original readership figures, but was left out of the sample (and subsequently Table 5.1). It is common knowledge that sister magazines, such as *You* and *Huisgenoot* have similar contents. For this reason, these two magazines were examined in a preliminary investigation; and it was found that the advertisements printed in the two magazines were almost exactly the same, apart from the language differences. Therefore, the *Huisgenoot* was excluded from the sample.

A preliminary examination of South African magazines found full-page and double-page advertisements to be prevalent, and because such advertisements are considered more successful in attracting attention (Arens *et al.*, 2011:357); the current study excludes advertisements smaller than one full-page. Therefore, from the sample of magazines, all full-page and double-page advertisements, featuring at least one adult woman, are selected as units of data collection.

5.7.3.2 *Sampling for television commercials*

South Africa features six television broadcasters, namely *SABC 1, 2* and *3*, *e.tv*, *M-Net* and *DStv*. Of these, *SABC 1, 2* and *3*, and *e.tv* are free-to-air channels, and are therefore accessible to the majority of the national population. *M-Net* and *DStv* require subscription at a premium fee, which not all South Africans can afford. The pay channels present different viewing matter and programming than the free-to-air channels, and *DStv* incorporates several channels in its subscription bouquet.

Table 5.2 presents the annual television channel figures for the South African channels in descending order of popularity (SAARF, 2009:1).

Table 5.2   Annual television channel reach

Channel	Percentage of total audience (February 2008 to January 2009)
SABC 2	98.6%
SABC 1	98.4%
SABC 3	96.8%
e.tv	96.3%
DStv (*Africa Magic Plus*)[2]	48.5%
M-Net	32.9%

Source: Adapted from South African Advertising Research Foundation (2009)

The majority of the South African population watch the free-to-air channels, as is evident from the national viewership figures in Table 5.2. With high viewership, exposure to television commercials is high, making the free-to-air channels better suited to the requirements of the study. Also, various researchers have opted for the television channels with the largest audiences in past research studies (Ibroscheva, 2007:412; Nassif & Gunter, 2008: Valls-Fernández & Martínez-Vicente, 2007:693).

The final study therefore includes the most viewed channels according to the SAARF's annual Cumulative TV Channel Reach Data (refer to Table 5.2). The channels are

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[2] *DStv* figure represented by the most viewed channel in its subscription bouquet (*Africa Magic Plus*).

SABC 1, 2, 3 and *e.tv.* The coding processes applicable to the current study will be described next, including the development of the codebook and coding forms.

5.8   STEP 4: CODING

The coding process involves converting the content that is being investigated into a format that is suitable for analysis. Coding entails the interpreting of the phenomenon that is being studied and stating the observations "in the formal terms of an analysis" (Krippendorff, 2004a:126). The content, hence, needs to be read or viewed - and then recorded in an analysable form. According to Neuendorf (2002:52), coding requires the decoding of the content, based on specific, predetermined variables.

The variables used for coding in a content analysis are detailed in the coding instruments, namely the codebook and coding forms (refer to Sections 5.8.2 and 5.8.3 in this chapter). The coders use the codebook as a guide to code the variables under investigation on the coding forms.

A distinction is made between human and computer coding, where human coding involves individuals; while computer coding involves the automated conversion of content, using a computer. The present study utilises human coding, which means that the content analysis is conducted manually, and not by using a computer program. Neuendorf (2002:132) and Riffe *et al.* (2005:130) advocate the use of coding forms to code the relevant data for the content analysis.

The coding form is used in conjunction with a codebook, which contains clear descriptions of the variables under scrutiny. In the current study, for example, the role categories are described in detail in the codebook. The coding form contains all the variables that are to be examined in the content analysis. It relates to the variables, as set out in the codebook (Riffe *et al.*, 2005:130). In the present study, the codebook includes descriptions of the nature of the visuals, the ethnicity of the character, the advertising appeal used, whether the character is a celebrity, the product type advertised and the role portrayal.

All these variables are included in the coding forms, as well as the number of pages and the number of full-page advertisements (including and excluding women) in the case of magazine advertisements. The total number of commercials must also be noted on the coding form for the television commercial analysis.

In order to gather the required data from the sample of magazines, all the advertisements featuring women need to be flagged and subsequently coded, using the codebook and the coding forms. The television commercials are coded as they are viewed, and if necessary, the video tape or DVD is paused to enable better identifying of the elements of importance to determine the role portrayals.

The coding of the magazine advertisements (pilot study and final study) excludes ones that only feature non-facial body parts. Therefore, all images that include the face are analysed. Free-standing inserts, competitions, advertorials or promotions, advertisements for forthcoming issues of the magazine, public service announcements and non-profit organisation advertising are excluded from analysis, as they fall outside the focus area of the current study.

The pilot study and final coding of the television commercials exclude commercials for competitions, infomercials, advertisements for channel-related programming, public service announcements, non-profit organisation commercials, as these commercial types fall outside the scope of the study. Women (actresses) in commercials for movies are also excluded, as they represent a preview for the film and not an image or role associated with a brand or product.

The research instruments (codebook and coding forms) used to conduct a content analysis will be discussed in the next section.

5.8.1 Codebook

A codebook contains all the aspects relevant to a content analysis study, and provides descriptions of all the relevant concepts. The codebook is based on the research objectives of the study (Carson in Harwood & Garry, 2003:480). According to Riffe *et al.*

(2005:127), who refer to the codebook as a coding protocol, the purpose of the codebook is to provide the rules for the analysis - in order to ensure consistency in coding.

The codebook also serves as a record of the practical implementation of the study, as it enables other researchers to duplicate the research. Developing an efficient codebook requires that the researcher carefully think through all the concepts in order to obtain a clear, distinct description of all the aspects under consideration. Furthermore, the categories, described in the codebook, must be exactly represented in the coding forms.

According to White and Marsh (2006:31), the codebook "operationalises concepts that may in themselves be amorphous". The operationalisation process involves developing measures for the variables under scrutiny. In order to develop the codebook, there are specific criteria that must form the basis for the category descriptors (measures).

The primary focus of the current study is to determine the roles portrayed by women in advertisements. This makes the clear descriptions of the role categories crucial.

5.8.1.1 *Criteria for the establishment of role categories*

The quality of a content analysis study is largely dependent on well-defined categories used to analyse the message content (Harwood & Garry, 2003:487). In the present study, the primary categories of interest are the role portrayals of women in advertisements. It is therefore crucial to have very clear role category descriptions, in order to ensure that different coders will come to the same conclusions regarding the various role portrayals. This is necessary to ensure the reliability of the content analysis study (Neuendorf, 2002:112).

Particular elements in the advertisements are important in establishing the categories for a content analysis study. Neuendorf (2002:118) asserts that the categories that are employed for a particular measure need to be exhaustive, mutually exclusive, as well as adhere to a suitable measurement level. Exhaustive measures require that all pertinent aspects of the concept be represented in the category description (White & Marsh, 2006:32). According to Riffe *et al.* (2005:89), mutual exclusivity refers to the differentiation

between the categories. This means that each category has to be described in such a manner as to clearly distinguish it from all the other categories.

The measurement level applicable and relevant to the present study is nominal (refer to Section 5.11.1). Nominal variables are distinct from one another and are not ordered (Krippendorff, 2004a:161). In the current study, the category descriptions of the female role portrayals have to include all relevant aspects needed to identify a particular role portrayal (exhaustive), as well as be distinct enough to ensure that a character be distinctly classified as portraying a specific role. An example of a nominal variable in the study is ethnicity, as the categories indicating ethnicity are distinct, namely white, coloured, Indian and African.

Clear role descriptions minimise the confusion between roles, enabling mutual exclusivity. It should be noted that it is possible for one female character to portray more than one distinctive role in an advertisement. One of the objectives of the current study (refer to Section 5.5) is to determine the incidence of women portraying more than one role in an advertisement. It does not negate the mutual exclusivity of the categories, since such portrayals are distinct and differentiable.

In analysing the content of advertisements, the present study focuses on the visuals, and excludes the text or any verbal cues in the advertisements and commercials. Four primary elements of the visuals in the advertisement are used as criteria in categorising the role portrayals (Rudansky, 1991:139). These four elements will be discussed next.

a. Character

The character, as the most important aspect of the advertisement, is described by appearance, manner and activities (Dyer, 1993:97). The appearance of the character includes age, gender, ethnicity, the body, size and the looks of the character. Of particular importance to the present study, are gender (women), age (adults, therefore over 18 years of age), ethnicity (all of the primary South African population groups), body (the face and body shots including the face) and looks (physical appearance often indicates a stereotype).

Another aspect of importance to the current study is whether the character is depicted alone or with other people, as well as the relation of the character to the others in the advertisement. The manner of the character refers to the facial expression, eye contact or focus, pose and clothes (Dyer, 1993:101). Emotions are portrayed through the expression, and in conjunction with the focus of the character, can be used as indicators of a role portrayal. For the purposes of analysis, the clothes and pose of the character are of particular importance in the roles of mannequin and sex object. The descriptions of these roles are influenced strongly by the degree of dress (such as partially dressed or demure) and the pose (such as neutral versus suggestive).

The activities in which the character is engaged also serve as indicators of a role portrayal. Actions include movement and touch, as well as positioning, relative to objects and other people. Specifically, the main actions - or the focus of the character - are also important (Rudansky, 1991:139). For example, a woman engaged in a household chore, typically portrays a homemaker's role.

b. Props (supporting elements)

The elements surrounding the character serve as role indicators. Props include objects (excluding the product) that function as focus points or important background items. Props support the character's role, as they often assist in demonstrating the product's use, such as a glass in a beverage advertisement (Dyer, 1993:104).

In the current study, props are used as additional indicators or confirmations of particular roles. For example, food products are often portrayed in the process of being cooked, and the utensils and cookware depicted with the food product serve as props.

c. Setting

The setting or location of the advertisement also plays an important part in identifying the role portrayed by the character in the message. According to Rudansky (1991:140), the setting creates context and can be used to infer a role portrayal. Various authors use specific settings as role indicators. Most of these can be classified under the headings of

home, work and leisure (Ibroscheva, 2007:413; Mwangi, 1996:210; Valls-Fernández & Martínez-Vicente, 2007:693).

Indoor settings include the home, work or office environments, and outdoor settings are generally reflected in leisure or recreational environments. The setting within which the character in the advertisement is depicted is used as a role-category indicator in the current study.

d. Product

The product can be used, displayed or even merely pictured in the advertisement. In most cases, its presence and function in the advertisement or commercial reflect a particular role portrayal; and it, therefore, plays an important role in the description of the role categories. In the current study, various product categories are included in the analysis, as indicators of roles, as well as in relation to particular portrayals.

The literature review is used as a basis for the decision on which product categories are included to be in the codebook (refer to Section 5.8.1.2). The above mentioned criteria are integrated into the category descriptors for the content analysis.

Various concepts that are useful in the application of the coding process are described in the codebook, as well as the applicable coding variables. The coding variables are also indicated on the coding forms. The coding process in a content analysis study involves a careful scrutiny of all the relevant advertisements and commercials for the variables, as set out in the codebook.

Variables include the character, the nature of the visuals, ethnicity, advertising appeal, celebrity, product or service categories and the role categories. The pilot study codebook is presented in Appendix A; while the final codebook is available in Appendix B.

Coders are required to provide specific information on the coding forms. The information required in the current study includes the coder's ID (the coder's name and surname), the total number of items coded, the item number (the specific number of the magazine advertisement or television commercial) and the specific item (description of the

advertisement/commercial). Coding forms are used in conjunction with the codebook when analysing the advertisements.

5.8.2 Coding forms

A coding form (also referred to as a coding sheet) is used to code the variables in the study. Riffe *et al*. (2005:130) state that the coding form can be paper or computer-based. In the current study, the variables are coded manually on a paper coding form. Initially, the coding will be completed for the pilot study, after which the coding forms may be adapted to incorporate new variables or remove any variables that may be superfluous.

The pilot study coding forms are presented in Appendix C (magazines) and Appendix D (television). A concise discussion of the pilot study that forms part of the content analysis research will be provided next.

5.9 STEP 5: PILOT STUDY

The content analysis research process involves a pilot study (refer to Figure 5.1). As stated previously, a pilot study is completed (as part of the present study) before the final data collection in order to define clearly the existing roles, as well as to identify any possible new roles in magazine advertisements and television commercials. The pilot study involves a content analysis of a sample of the most popular magazines (refer to Table 5.1) and the television commercials on the three channels with the highest viewership (*SABC 1*, *2* and *3* – refer to Table 5.2).

Neuendorf (2002:51) advises that a pilot study must be completed as part of the content analysis process (refer to Figure 5.1), and that it should be conducted on a sample of applicable content before the final study takes place. In the present study, the sampling processes used in the pilot study are the same as for the final study. The sampling processes applicable to the study were outlined in Section 5.7.3.

In a pilot study, the applicable content is examined, as well as the relevant variables coded on the coding forms by independent coders. The inter-coder reliability is determined and

serves as an indicator of possible problems in the coding process and/or coding instruments. For testing the reliability of the present study, three independent coders (the researcher and two postgraduate students in Marketing) code the same group of advertisements and commercials in a manner dictated by the literature (refer to Section 5.11.1.1). Coders used in a content analysis need to be trained in the use of the coding instruments.

5.9.1 Coder training

According to Krippendorff (2004a:129), it is advisable to train coders in the application of the coding instruments. Coder training aims to prepare the coders and to ensure that they are able to apply the coding procedures, using the coding instruments (codebook and coding forms). The end-result of coder training requires the coders to be able to utilise the codebook effectively as their exclusive guideline (Krippendorff, 2004a:131).

During the coder-training, pilot coding takes place to familiarise the coders with the coding process. The codebook and coding forms may be revised, as the training highlights any possible problem areas (Neuendorf, 2002:133). It is important for coders to agree on the interpretation of the categories under investigation. The training process is commonly used to pre-test the categories, in order to reach consensus (Harwood & Garry, 2003:486; Neuendorf, 2002:133). After consensus is reached, and the coding categories adapted if necessary, each coder completes the final coding independently.

The coders used in the current study were trained in a five-hour session that included an explanation of the concepts investigated in the study, the codebook and the application of the coding process. The coders were required to code a few items, after which a discussion was held to ensure that each coder understood the process and that agreement on the interpretation of the variables had been reached.

Discussion is a common tool used in content analysis in order to achieve consensus (Harwood & Garry, 2003:486). Pilot coding was completed on a sample of advertisements and commercials; and this served as a trial run for the final coding process.

Saunders *et al.* (2007:386) assert that pilot test data can be analysed and serve as an indicator of the validity of the research instrument. In the current study, this relates to the codebook and coding forms. The descriptions of the variables in the codebook need to be clear and unbiased, in order for the items to be coded correctly and consistently. This relates to the criteria of exhaustiveness and mutual exclusivity, as described in Section 5.8.1.1. The codebook and coding forms used in a content analysis are generally revised during the pilot process - as the coders are being trained (Krippendorff, 2004a:129).

An important aspect of the pilot study is the pilot reliability. Reliability refers to "the extent to which a measuring procedure yields the same results on repeated trials" (Neuendorf, 2002:112). As mentioned previously, the coders conducted pilot coding, on which reliability was calculated. The reliability of the pilot study can be measured in various ways, and the same measures can be used to test both pilot and final reliability. Reliability will be discussed in Section 5.11. The final coding in the content analysis process will be discussed next.

5.10 STEP 6: FINAL CODING

After the pilot study, the final content analysis is conducted, using an adapted sample of magazines and commercials and the refined role categories and/or other adapted variables. The details of the practical implementations of the final study will be presented in Chapter 6. The researcher is required to code the entire body of advertisements and commercials (as selected during the purposive sampling process) - for both the pilot study and the final study.

Furthermore, both the pilot study and final study make use of two independent coders, apart from the researcher. The independent coders are required to code a sub-sample of items in order to test inter-coder reliability. Inter-coder reliability will be discussed fully in Section 5.11.1. Krippendorff (2004a:127) asserts that the coders involved in a content analysis study need to possess cognitive skills, as well as the appropriate backgrounds. The current study employs two female postgraduate students who have specialised in Marketing.

Training the coders to conduct an effective content analysis is crucial (Neuendorf, 2002:133). The coder training conducted in the present study was outlined in Section 5.9.1. After the training of the coders was conducted, the codebook and the coding forms were adapted to guarantee consensus and to ensure consistency in coding. The final coding follows a very similar process to the pilot coding, in that each item (advertisement or commercial) is examined, and the applicable variables are then coded on the coding forms. The final codebook is presented in Appendix B, and the final coding forms are presented in Appendix E (final coding form magazines) and Appendix F (final coding form television).

The analysis of the data and the reporting thereof will be discussed next.

5.11 STEP 7: DATA ANALYSIS AND REPORTING

The data collected from the advertisements and commercials are analysed quantitatively. This entails determining, among other factors, the frequency of occurrence of the aspects on the data form. These frequencies are summed and tabulated; and descriptive statistical analysis is performed on the data (more detail will be provided in Section 5.11.1.1). The details of the findings and the descriptive statistics will be presented in Chapter 6.

A content analysis study has to adhere to scientific rigour to be considered effective. Neuendorf (2002:10) asserts that for content analysis to be scientific, it needs to conform to various criteria considered to be acceptable in a scientific method, namely: *inter alia* being reliable and valid. These criteria will be described next, as well as the levels of measurement and the representational techniques used in the current study.

5.11.1 <u>Reliability</u>

According to Harwood and Garry (2003:485), three kinds of reliability exist in content analysis, namely stability, reproducibility and accuracy. Stability refers to the degree to which the analysis will yield the same results if the data are re-coded by the same researcher at a different point in time (intra-coding). This is deemed the least-effective form of reliability. Hayes and Krippendorff (2007:78) assert that reproducibility is the most

effective measure of reliability, and it refers to the degree of agreement between different coders, or, as it is called, inter-coder reliability.

Inter-coder or inter-judge reliability is the degree to which two or more independent coders agree when analysing the same body of content. Selecting a suitable measure of reliability is a complex procedure, as there are many measures that can be used (Hayes & Krippendorff, 2007:78). Not all reliability measures are applicable to the present study. The measures most suitable to a content analysis of this nature will be outlined next.

Hayes and Krippendorff (2007:80-81), and Neuendorf (2002:148), list various popular methods used by content analysts to evaluate the reliability, including per cent agreement, Scott's *pi*, Cohen's *kappa*, Krippendorff's *alpha*, Spearman's *rho* and Pearson's correlation coefficient. Per cent agreement calculates a percentage of coder agreement by dividing the number of agreements by the number of measures (Neuendorf, 2002:149). Per cent agreement has been used in a variety of previous content analysis studies to test reliability (Furnham *et al.*, 2001:25, Hung *et al.*, 2007:1041 and Ibroscheva, 2007:412).

Krippendorff's *alpha* was suggested by Hayes and Krippendorff (2007:81) as the standard statistic measure for inter-coder reliability. Krippendorff's *alpha* measures inter-coder agreement and is "the most general agreement measure with appropriate reliability interpretations" (Krippendorff, 2004a:221). According to Neuendorf (2002:151), Krippendorff's *alpha* also considers chance agreement, and is thus suitable for nominal, ordinal, interval and ratio measures (refer to Section 5.11.1.4 for a discussion on measurement levels).

The current study's level of measurement is nominal, and it utilises multiple coders, aspects that limit the reliability measures that can be applied. Of the mentioned reliability measures, only Krippendorff's *alpha* is suitable for multiple coders (Krippendorff, 2004b:428).

Per cent agreement is also used in the present study, as two variables (ethnicity and roles) could have multiple responses, which causes Krippendorff's *alpha* to be unsuitable for testing the reliability of these two variables. To resolve this matter, these variables are tabulated and their frequencies calculated. Fisher's Exact Test, which indicates significant

relations between variables, is computed on the ethnicity and role variables. The per cent agreements for the ethnicity and the role variables are then determined, based on their frequencies.

Researchers differ on the acceptable level of reliability for content analysis data. A review of various opinions concludes that reliability scores of 0.80 or higher can be considered acceptable (Neuendorf, 2002:143), although Krippendorff (2004a:241) asserts that variables with reliabilities of between 0.67 and 0.80 should also be considered for drawing provisional conclusions.

The reliability sample needs to be representative of the items that are being studied. Therefore, the sample for reliability purposes should be drawn randomly. The reliability samples of magazine advertisements and television commercials, for both the pilot and the final study are drawn using simple random sampling. It is commonly agreed that there is no set standard for deciding on the size of the sub-sample. Wimmer and Dominick (in Riffe *et al.,* 2005:143) suggest between 10 and 25 per cent of the content under scrutiny as being acceptable.

The last kind of reliability in content analysis is accuracy. This refers to the extent to which the results adhere to a specific standard. It is measured on the basis of inconsistencies in intra-coding, as well as inter-coding (Harwood & Garry, 2003:485). In the coder training process, accuracy is also addressed, as it pertains to the set standards (category descriptions).

Category descriptions are of the utmost importance in content analysis, and this issue relates to category reliability. For the categories in content analysis to be considered reliable, the categories need to be defined in such a manner that independent judges (or coders) will agree on the application of each category description (Riffe *et al.*, 2005:123). Coder training is aimed at ensuring consensus on the category descriptions. Furnham *et al.* (2001:24) resolved disagreement in coding by the joint analysis of items that were disagreed upon until the coders had reached agreement.

As the present study employs three coders, disagreement was resolved with discussion. On items where no agreement could be reached by joint analysis and discussion, the majority rule was applied.

5.11.2 <u>Validity</u>

Validity is generally described in research texts, as the degree to which a particular research instrument measures what it needs to measure (Leedy & Ormrod, 2005:28). For example, if the content analysis aims to measure the incidence of a particular role portrayal in advertisements, it will only be considered valid if the results clearly indicate the actual frequency of the specific role portrayal. According to Saunders *et al.* (2007:386), conducting a pilot test using the research instrument facilitates the evaluation of the validity of the instrument to measure what it has to measure. The present study employs such a pilot study, as described in Section 5.9.

Various measures for determining validity exist. Neuendorf (2002:115-117) identifies five types of validity, namely: external validity, face validity, criterion validity, content validity and construct validity. External validity refers to the generalisability of the study, and is related to the sampling method used. As the study employs purposive sampling, external validity is not applicable.

Face validity is the extent to which the measure fits what is expected, or generally believed to be true (Krippendorff, 2004a:313). Therefore, if the findings of the content analysis make general sense, they are considered valid in terms of face validity. Additionally, the current study uses two independent coders who also review the measures, as suggested by Neuendorf (2002:115). This enhances the face validity of the present study.

Criterion validity evaluates the extent to which the criteria are consistent with the prescribed codes (White & Marsh, 2006:31). It relates to the established standards or behaviours that are not necessarily inherent in the measure. This is not applicable to the current study. Content validity refers to the degree of completeness of the measure, in other words, whether it manifests everything the concept represents (Neuendorf, 2002:116).

In the current study, content validity can be measured in terms of the comprehensiveness of the category descriptions. For example, to determine a female role portrayal, various aspects need to be included in the analysis, as described in the codebook, and the descriptions aim at covering all aspects that may indicate a role portrayal. The last validity type is construct validity, which is the extent to which the measure is associated with the existing theoretical constructs.

In summary, face and content validity are applicable to the present study (as mentioned above).

5.11.3 <u>Levels of measurement</u>

Content analysis studies can incorporate various levels of measurement. These are nominal, ordinal, interval and ratio measures or scales. Nominal measures are those where the values are distinct from each other (Krippendorff, 2004a:161). Nominal measures may be represented by numbers, but the numbers need have no numerical meaning and serve only to indicate a particular variable.

Ordinal measures are rank-ordered on some or other scale, signifying that one ranking is higher or lower than another on the continuum. Interval scales correspond to numbers in a normal sense, but the zero point is arbitrary (Neuendorf, 2002:123). An example of an interval scale is a temperature scale. The most sophisticated measurement is the ratio scale, referring to measurement levels that also correspond to normal numerical values, but with a true point of zero (Riffe *et al.*, 2005:84). An example of a ratio scale is age, where zero represents a newborn baby.

In the current study, the level of measurement is nominal, as each category is assigned a number which mean nothing in a merely numerical sense. For example, the ethnic variable of "white" is represented by the number 4 (refer to Appendix B, the final codebook). The statistics applicable to the study (representational techniques) will be described next.

5.11.4 <u>Representational techniques</u>

The data gathered from of the study are analysed using descriptive statistics. Descriptive statistics summarise the study observations, as well as the associations between the variables (Babbie, 2009:467). In the current study, the descriptive statistics include frequency tabulations and cross-tabulations, which are applicable to the nominal data.

Frequency tabulations consist of tables that reflect how frequently a variable is found in the data (Krippendorff, 2004a:192). Frequency tables include the values in absolute (number of incidences of the variable) and percentage format of each category. Cross-tabulations (also referred to as contingency tables) permit the simultaneous analysis of two different variables in order to observe the relationship or association between these variables (Bryman & Bell, 2007:358; Kolb, 2008:253).

The data can also be displayed by using graphics. Bryman and Bell (2007:358) suggest using pie and bar charts when representing nominal data. The current study employs both types of graphics in presenting the findings of the study.

5.12 SUMMARY

Chapter 5 has provided a general overview of the nature and role of marketing research. A brief exposition of advertising research has been presented, as well as the method of content analysis used in the current study. The requirements, applications and the process of content analysis have also been discussed. The steps commonly followed in content analysis were discussed individually, as they pertain to the study, commencing with an outline of the theory and conceptualisation of the current study. This was followed by a discussion on the theoretical background to the units of analysis and the sampling methods applicable to a content analysis.

The construction of the research instruments (the codebook and coding forms) was presented, followed by a concise account of the pilot study. The discussion of the pilot study was followed by the final coding procedures, which were outlined in Section 5.10.

In conclusion, the chapter has provided an explanation of the data analysis and reporting of the processes that apply to the current study.

In the next chapter, the findings of the current study, including those of the pilot study, will be discussed. Chapter 6 will include a description of the practical implementation of the study. The implementation of the sampling procedures used in the present study, as well as the completion of the pilot study and the final data collection, will be specified. The applicable descriptive statistics used in the data analysis will be presented, in order to effectively report on the results of the content analysis.