Chapter 4: Methodology of the Conducted Research

This chapter has the objective of describing the methodology of the conducted research in detail so that each step of the process can be understood and reconstructed. Yet before describing the detailed process of this investigation, it is useful to give a brief overview of the goals of market analysis, present different approaches of market research and state the research purpose, hypothesis and main research objectives.

4.1. Market Analysis

One of the goals of market analysis is to spot difficulties and chances, which necessitate the development or main alteration of a marketing program. If a problem were to be caused by the emergence of a new distribution channel, for instance, the job of marketing research would be to assure that such a development is noticed, so that sufficient information could be discovered to be able to draw conclusions about which marketing program would be most reactive. The dissatisfaction of the consumer with existent products can be seen as an opportunity and advantage in so far that if marketing research detected the dissatisfaction and determined how many people and to which extent they are dissatisfied, this could lead to the necessary improvements and enhancement of competitive advantage. (Aaker, 1986)

4.2. Research Design

Before taking a close look on each step of the process of this research, the design of the research and the objectives of the investigation are to be presented. The research of this paper has been strictly exploratory with the main objective to test the hypothesis that there are inconsistencies between the core associations of the umbrella brand Puma and its license brand Puma Fragrances and to explore which associations vary the most, in order to have a starting point to improve the marketing strategy of Puma perfumes and obtain more harmony and synergies between the brand and its extension.

A further goal of this research was to find out how the target population judges the popularity of the brand in order to see at which stage of the brand life cycle the brand is placed by its consumers. Since the product life cycle approach of brand architecture and brand concept image strategy are both based on the concept of a brand lifecycle, this aspect carries important information in order to adapt the marketing strategy of the brand and/or its extension.

Another important aspect of this research was to investigate on consumer choice behaviour of the target group with the following objectives:

1. Validate which criteria play the most important role for the target group in their purchasing decision of perfumes.
2. Find out where the target group mainly buys perfumes and how often they use them.
3. Substantiate if there is any significant difference of perceptions or consumer behaviour within the target group.
4. Learn something about the current positioning of the umbrella brand Puma.

The following graph is to illustrate the hypothesis with its components in order to give a better idea of which elements were tested during this investigation.

Figure 4.1

Hypothesis and Core Attributes

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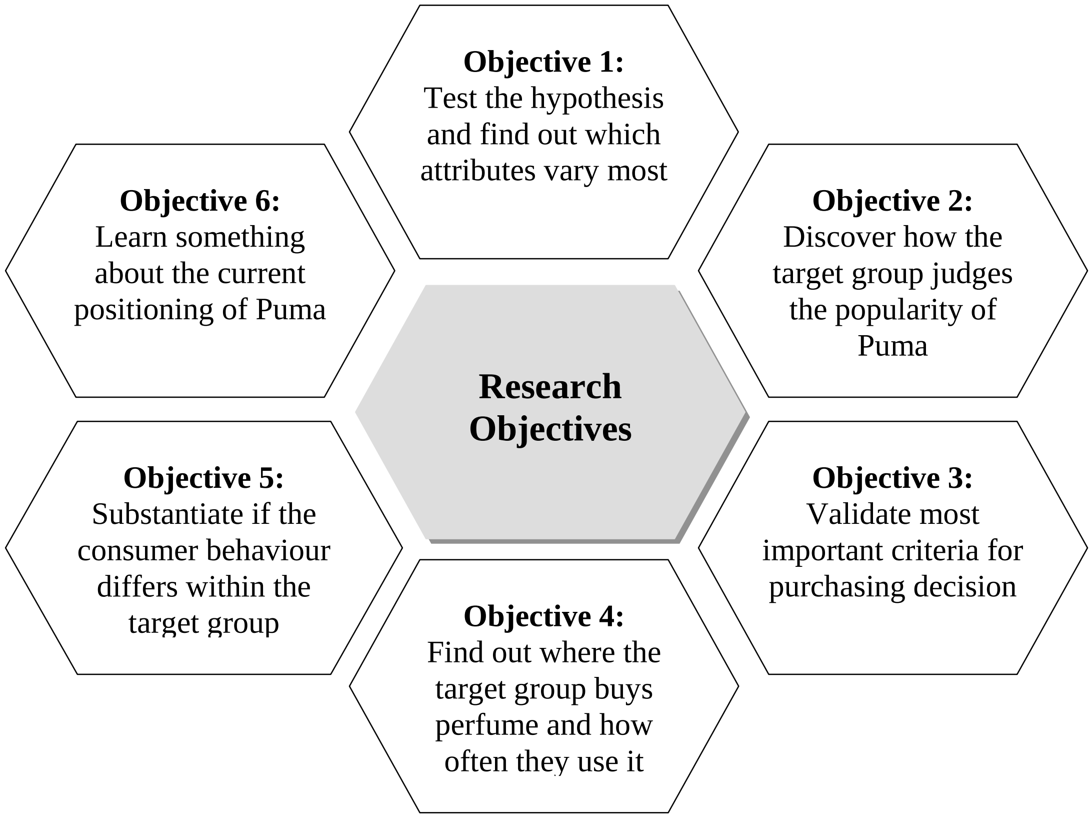
(Source: own elaboration)

All of these attributes were tested for the umbrella brand Puma as well as for its brand extension Puma Fragrances with the objective to find out how harmonious the target group perceives the master brand and its extension and which attributes vary the most.

The next figure illustrates the six different research objectives this investigation is based on.

Figure 4.2

Research Objectives



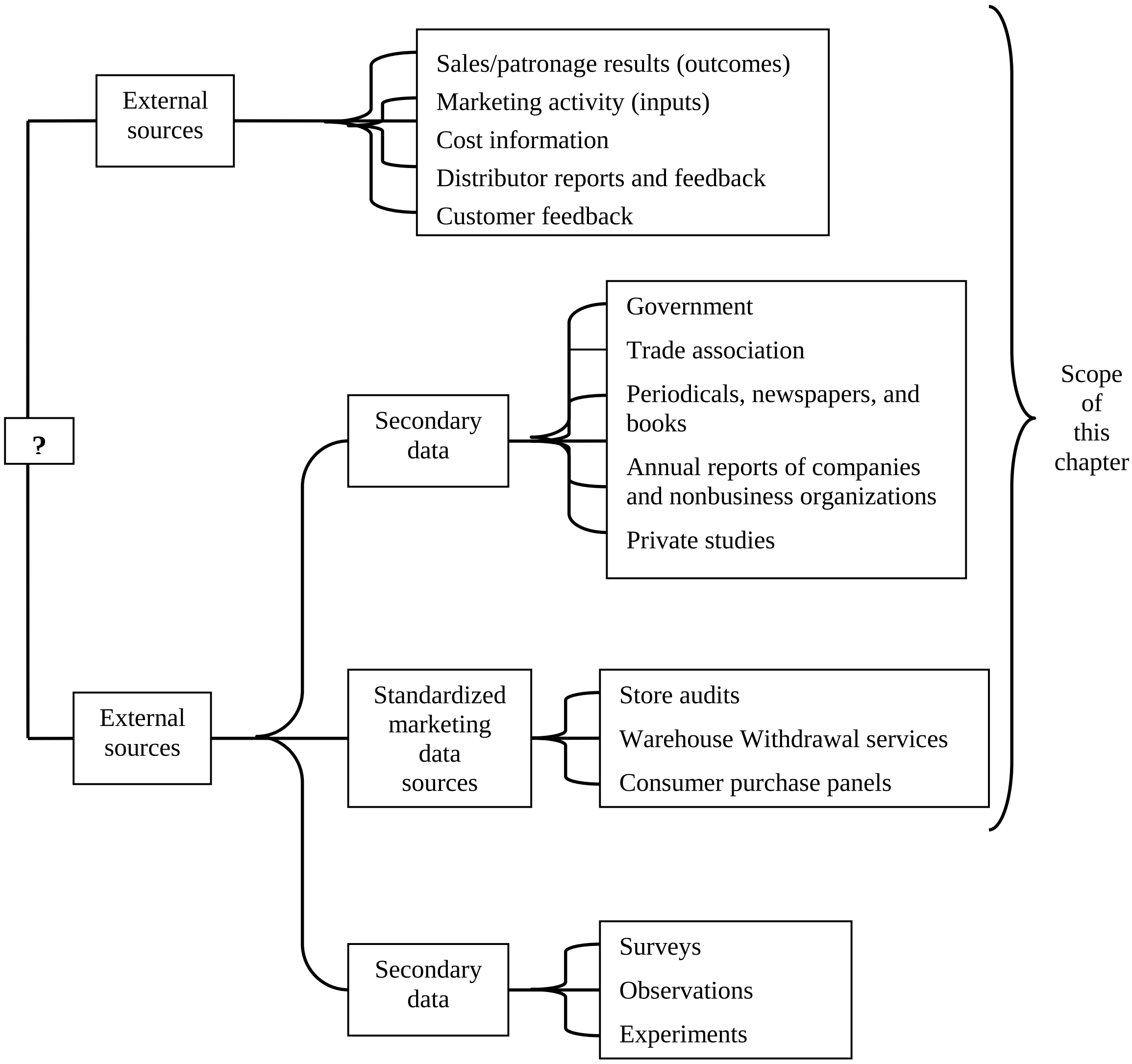
(Source: own elaboration)

4.3. Primary and Secondary Data

When designing research there are various methods to choose from and they can either be applied singly or in combination. Those methods can be divided into two basic groups; methods that use secondary sources of data and methods that use primary sources of data. The basic difference of secondary and primary data is that secondary data is already available, since it was gathered for a different reason than the present problem, while primary data is collected to attend to a specific research objective. The following figure summarises the principal marketing data sources available for any researcher. (Aaker, 1986, p. 79)

Figure 4.3

External Marketing Data Sources



(Aaker, 1986, p. 80)

The investigation of this paper is based on both primary and secondary data, on internal sources as well as on external sources. The internal sources were obtained from the marketing department of Cosmopolitan Cosmetics and the external data was collected from journals, magazines, homepages, and books, as well as from a quantitative survey conducted by the researcher. The references of the journals, magazines, homepages and books can be found in the references at the end of the paper and the survey is explained in further detail in the course of this chapter.

4.6. Research Approach

After presenting the whole range of marketing data sources, the following section is to explain the different decisions that have been made and steps that have been taken during the course of the investigation.

At the beginning of the investigation, secondary research was collected from books, journals, magazines, and homepages, in order to establish a theoretical background and based on this the questionnaire of the primary research was prepared. When conducting market research, a variety of different methods exist, one of the most common being surveys. The decision as to why the primary research of this paper, face to face survey interviewing, was selected, was decided upon for various reasons. First of all, it had to be decided whether to do a qualitative or quantitative research, and after deciding on quantitative research, the question was whether to apply survey research, experimental research, or do a marketing simulation. In the following, the decisions that have been made are to be explained.

4.6.1. Quantitative versus Qualitative Research

Quantitative research in marketing is intended to produce tangible information about characteristics and behaviours of the population and usually deals with more objective measurement and analysis than qualitative research. It is different from qualitative research in so far that qualitative approaches involve finding out what people think and how they feel and are therefore a little bit more subjective than the quantitative approach, given that this kind of information involves feelings and impression rather than numbers In qualitative research, the measurement and analysis depend a little bit more on the insight and impressions of each individual researcher. In quantitative research, on the contrary, measurement and analysis are separated from the judgment of the researcher and are therefore carried out in a stricter way. As a result, the applications of quantitative research go further than hypothesis formulation. Quantitative approaches are often used with the objective to describe larger populations and to test hypotheses. Surveys, experiments, and simulations are the fundamental quantitative research approaches that are most commonly used in marketing research. (Bellenger & Greenberg, 1978, p. 199)

Since the hypothesis of this research was derived from prior qualitative market investigation conducted by Cosmopolitan Cosmetics, the investigation of this paper was based on the quantitative approach in order to test the hypothesis that there are inconsistencies between the umbrella brand, Puma, and its brand extension, Puma Fragrances. Other aspects of consumer choice behaviour and the positioning and popularity of Puma were also included to obtain more valid information. Given that there are different approaches to carrying out quantitative research, the next section will explain in more detail why surveys where chosen for this investigation to gather all the important information.

4.6.2. Face to face survey interviews

The principal advantage of a survey is that it can collect a great deal of data about an individual respondent at one time. The data may include:

- Depth and extent of knowledge
- Attitudes, interests, and opinions
- Behaviour – past, present, or intended
- Classification variables, such as demographic and socioeconomic measures of age, income, occupation and place of residence (Aaker, 1986, p. 1141)

For most of these kinds of data, the respondent is the best, if not the only, source of obtaining the information. The advantages of personal interviewing are that an interviewer, face to face with the respondent, can arouse initial interest, thus enhancing the rate of participation and establishing a continuous relationship and trust. The interviewer can explore and clarify questions and thereby maximise the understanding of the respondent and yield complete answers. Naturally, there are also drawbacks about personal interviewing. Face to face interviews consume a lot of time, are difficult to administer and are costly. Furthermore, the danger of interviewer error, ambiguous interpretation of both questions and answers and errors in formulating responses exists. These problems can be minimised through proper recruiting, selecting, training, motivation, and control of interviewers. (Aaker, 1986)

4.6.3. Where to Conduct the Primary Research

After deciding on doing face to face interviews, it had to be thought where and to what extent the survey was to be conducted. The research was limited to the German market for several reasons. First of all, it would have caused administrative difficulties to explore the image of Puma and Puma Fragrances internationally because of the limited resources of time and money for doing surveys in different countries. Second of all, the image of Puma still is very distinctive in the different regions and therefore it would have been hard to compare and combine the results. The fact that Puma has its heritage in Germany and that the German market still is the biggest and most important market for Puma fragrances was crucial in the decision to chose Germany as the place were to conduct the research.

Within Germany, the research was conducted in three cities: Munich, Heidelberg and Mannheim. The biggest amount of the survey was conducted in Munich since it is, with 1,247,873 inhabitants, the third largest city in Germany, by population. The second largest amount of surveys was conducted in Mannheim and the rest in Heidelberg, which are both smaller cities with 308,353 and 142,959 inhabitants respectively. ("Cities in Germany", n.d.) The surveys were conducted in urban areas because Puma and Puma fragrances especially target young people that are urban and multicultural as their customers. The reason why Munich, Mannheim and Heidelberg were selected was based on the accessibility for the interviewers and also the knowledge of the author about hip and trendy spots in those places.

4.7. Target Population and Sample Size

The next step in the research process was to define the target population and the sample size. Sampling is one of the major decisions that have to be made in the collection of primary data. It corresponds to the selection of a constricted number of respondents from the population, which is the total group of those that meet the data that is needed. (Bellenger & Greenberg, 1978, p. 153)

Since sampling has the objective of obtaining information about a population, it is crucial at the beginning to classify the population properly and accurately. Given that this research has the purpose of finding out more about the attitudes of the consumer of Puma and Puma Fragrances, the core target group of those brands was selected as population. Cosmopolitan Cosmetics defines the target group of Puma perfumes in accordance with their licensor Puma as:

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Given that none of the sampling units should have more weight than the others, in every city, the same number of people of each of the four units was interviewed. In total, 140 members of the target population were interviewed within four days. Usually the appropriate sample size is determined with a method that is based on the standard error statistic. Since judgemental sampling, which is explained further on in the text, was chosen as the sampling technique, there was no reason to statistically calculate the correct sample size, because with this method, one cannot generalise the results onto the whole population anyways and say that they are representative. Therefore a sample size was chosen which is big enough to allow regularities and tendencies within the sample to be shown in order to be able to indicate similarities among the population as a whole.

4.7.1. Sampling Technique

Given the population and the sampling size, the next step was to decide on a sampling technique, which refers to the method in which the required number of elements is to be chosen from the target population. There are two basic approaches of sampling: probability sampling and non-probability sampling. Probability sampling ensures that each element of the population has a known probability of being chosen for the sample. With a non-probability sample, this probability is not known. (Bellenger & Greenberg, 1978, pp. 160-161)

Although some people say that probability samples are more scientific and therefore usually preferred over non-probability approaches, there are situations when it is appropriate to use non-probability sampling. Non-probability sampling can be divided into various approaches, like convenience sampling, judgment sampling, and quota sampling. Given that for this research the judgment sampling method has been selected, the advantages of this approach and the reasons to decide on this method are to be explained in the next section. (Bellenger & Greenberg, 1978, pp. 160-163)

4.7.2. Judgment Sampling

In judgment or judgmental sampling only those elements that appear to be characteristic of the considered variables are selected instead of using a probabilistic method to attain the sample. Thus, the resulting sample is usually less expensive because it does not have to include such a big quantity of respondents and random error can, in fact, be diminished. Another positive effect of judgmental sampling is that the sample selected by the researcher can actually be more "representative" of the population than a randomly selected sample, because more attention is put on the variables that are to be considered. Since the researcher will normally select items that are closer to the average of the target population, the random sampling error is usually smaller for a judgment sample than for a probability sample. Therefore, this sampling method offers a concentration of "representative" units rather than an accidental distribution of elements. In some situations, the compensation of objectivity can be exceeded by increased accuracy. Nevertheless, frame, non-response, and measurement error may still occur as in each other kind of primary data collection. (Bellenger & Greenberg, 1978, p. 161; Mayer, & Brown, 1965, as cited in Bellenger & Greenberg, 1978)

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4.8. Questionnaire

In the next part, each question of the questionnaire, which was applied during the survey, will be explained with focus on its objective. The complete questionnaire can be found in appendix A.

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4.9. Administration

The research was administered in the following way: first a pilot questionnaire was developed and applied with a sample size of 30 in Mannheim, Germany. Then the pilot was analysed and interpreted with the help of the software SPSS for Windows. This pilot focused on Puma and Puma Fragrances and also on their competitive environment, so the survey was very long, because the interviewee not only had to answer all questions about attributes and associations for the brand Puma and Puma Fragrances, but also for three of their competitors.

In the process of applying the questionnaire and analysing the results, it became clear that the survey was too long and widespread and that it would be smarter to focus more on the relationship between the umbrella brand Puma and its licensee Puma Fragrances, instead of including the competitive environment, in order to not confuse or distract the consumer and obtain more valid information. During this interpretation process it was also detected that a lot of information was interesting but not really relevant for the topic because no further conclusions could be drawn from it.

Thus the questionnaire was adapted in the way that it mainly focused on the attributes and associations of the Puma and Puma Fragrances, because those associations build the main focus of the research objectives and deliver the most valid information. The way of how this information was obtained was improved in the following way. The pilot questionnaire contained a list of attitude variables concerning the image of Puma and Puma Fragrances and its competitors. These attitudes were measured on a nominal scale where the respondent had to mark all the features and attributes that he thought would fit the brand, the ones that he felt did not fit, he left blank.

The new questionnaire was improved in so far that the nominal scale was substituted by an attitude rating scale, which can be different types of ordinal scales that are used to rate attitudes. An ordinal scale, in general, is accomplished by ranking objects or by putting them in order with reference to a common variable. The decisive question is whether each object has more or less of this variable than some other object and the scale delivers information on how much difference there is between the objects. The scale which was selected required the respondent to indicate the degree of agreement or disagreement with a variety of statements related to Puma and Puma Fragrances, selecting one of four possible categories that expressed levels of agreement: agree strongly, agree somewhat, disagree somewhat, disagree strongly. (Aaker, 1986, p. 208-220)

The number of categories the respondents can choose from is a topic which is widely discussed in marketing research. For this investigation, a four category scale was chosen in order to force the respondent to make a decision if he rather agrees or disagrees with the statement because the experience has shown that often people tend to go for the neutral middle if they have the chance to. Yet another “could not evaluate” category was added in order to give respondents that could not form a judgment based on insufficient knowledge about the brand, the possibility to still answer the question.

The revised questionnaire was applied with a sample size of 140 during the same weekend in each of the three afore mentioned cities in Germany.

4.10. Selection and Training of the Interviewers

In order to apply the questionnaires in Munich, Mannheim and Heidelberg, four interviewers were selected and trained on how to conduct the survey (2 for Munich, 1 for each Mannheim and Heidelberg). The interviewers were selected out of the target population because this gave them the following advantages. They could approach the respondents easier and establish a relationship and trust in less time. They are familiar with the problems and concerns of the target population and know about trends and popular brands among them. In order to minimise the interview error even further, all interviewers received a briefing on how to conduct the survey, which included the following aspects.

First of all, the interviewers were educated about the background, purpose and objectives of the research, in order for them to understand what the goals of the survey were, so they would approach the correct people and be sensitive for certain questions and answers by the respondent. They were advised to mention from the beginning the purpose and objective of the research to the respondents and make sure that the latter understood that the interview would be totally anonymous and voluntary.

The interviewers were told to approach especially trendy and fashionable people of the target population because, given that for time and cost reasons, the research could not be conducted in a range for it to be representative for the whole target population, it was important to explore especially the opinions of the trendsetters that are the core of the target group.

The interviewers were advised to personally to go through the questionnaire with each interviewee and not just hand them the questionnaire, in order to be sensitive for misconceptions or understanding difficulties that could appear during the interview and to be able to answer any kind of questions or doubts. Yet they were sensitised that although they could explain the question to the interviewee, they could not interpret it for them or help them to decide on an answer.

Another aspect that all interviewers were briefed on was that they could only question people that actually new the brand Puma but they were told to write down age, gender and occupation of the people who did not know Puma, in order to be able to see at the end how many of the approached people in the target population were actually familiar with the brand and which ones were not.

4.11. Social Research with SPSS

In order to be able to analyse the collected data, a statistical program had to be selected. The choice was SPSS, a professional program for social science data analysis, which was selected because it fulfils all necessary functions needed to analyse the data, like presenting data in graphic form, exploring attitudes with frequencies and crosstabs, and testing for significance. Before looking at the results of the research, a couple of basic definitions and concepts related to SPSS are to be illustrated.

One main objective of social scientific research is to develop theories that make it easier to explain, understand, and make sense of the social world. A theory can be defined as a statement or set of statements, which illustrate relations between concepts. Theories offer clarifications about patterns one comes across in human social life. They are building on concepts, which are general ideas or understandings that outline the foundation of social scientific research. Concepts are most helpful when they describe discrepancies among people or groups. (Babbie, Halley & Zaino, 2003)

Babbie et al. (2003) define a hypothesis as a statement of expectation, which is derived from a theory that suggests a connection among two or more variables. A hypothesis is a particularly uncertain statement that suggests that variation in one variable result in variation in the other variable. The difference between theories and hypotheses is that theories identify relations among concepts in the world of ideas, whereas hypotheses identify expected relations among variables in the world of empirical experiences.

Variables are practical indicators of the concepts that are to be researched, which have the capacity to take on two or more values.

Statistical significance can be defined as a calculation of the probability that an observed relation among variables in a probability sample stands for, something that exists in the population rather than being due to chance or sampling error. Significance tests belong to a larger division of statistics known as inferential statistics. While descriptive statistics give the possibility of describing or summarising key characteristics of data or relationships among variables in a data set, inferential statistics go a step further by giving the opportunity to draw conclusions or make assumptions, which expand further than the items in each particular data set to the larger population. (Babbie, Halley & Zaino, 2003)

Chi-square is one type of significance test, which has been used in this research, and that is most appropriate for nominal items, but can also be used with ordinal variables or a combination of nominal and ordinal variables. Chi-square estimates the likelihood that the relationship among variables is a result of random chance or sampling error through comparing the experimental distribution of responses with the distribution of responses one would expect if there were absolutely no relationship among two variables. Since it would take up too much time and is not significant in this context, the logic of statistical significance and the calculation of chi-square are not to be discussed in this paper. It is only mentioned that all relationships between variables were tested according to significance with the chi-square test. (Babbie, Halley & Zaino, 2003)