

## **CHAPTER 4**

### **DISCUSSION OF THE RESEARCH RESULTS**

#### **1. INTRODUCTION**

The objective of this chapter is to discuss the research results and establish the basis for the final conclusions and hypotheses for future research.

This chapter is structured in three sections:

Part 1: Descriptive analysis

Part 2: Questionnaire Analysis

Part 3: Conclusion

The discussion of the descriptive analysis follows.

#### **2. PART 1: DESCRIPTIVE ANALYSIS**

##### **2.1 COMPOSITION OF THE SAMPLE**

To obtain a sample of experienced and strategically knowledgeable, and currently employed executives, the researcher selected a group of 60 Executive MBA students of the Red McCombs School of Business of the University of Texas at Austin, USA. This business school is recognized as one of the top 20 in the United States of America, and therefore draws some of the best students and offers some of the best programmes available in the world. The Executive MBA programme is presented in a modular fashion, so students remain in their current functional employment positions, while completing the MBA programme.

Initial contact was through the faculty members responsible for Marketing and Business Leadership. A total of 59 completed questionnaires were received. Only 57 of the

responses could be used for analysis, since two respondents did not complete the classification details, rendering them useless.

For the purposes of this analysis the responses were averaged to obtain an overall respondent score for each of three categories:

1. Overall business experience
2. Industry category
3. Marketing experience.

There were three motivations for the averaging and categorizing. First, as discussed later in this chapter, in many instances there were no statistically significant differences in the *pattern* of responses between different members of certain industry or experience categories. Second, management perceptions are known to be subject to error and a number of researchers have found that averaging across functions improves the accuracy of the data. (Starbuck and Mezias 1996). Third, the questionnaire was designed with the conscious attempt to compare prompted and unprompted results for a number of sections, and over all of the respondents. In order to make the resulting data more manageable, the number of entries could be reduced, making the comparisons more user-friendly and easier for the reader/user to interpret.

Table 4.1 below sets out the classification details, reflecting the composition of the sample group. Since all respondents were MBA students in their first year of a two-year study programme, the degree programme and year of study will not be reflected in the table.

Table 4.1 Composition of the sample

	Category	Number of Respondents	Participants by Category (%)
<i>AGE</i>	21-34	26	45.6
	35+	31	54.3
<i>GENDER</i>	Male	52	91.2
	Female	5	8.8
<i>WORK EXPERIENCE</i>	≥15 Years	14	24.6
	10-14 years	21	36.8
	< 10 years	22	38.6
<i>MARKETING EXPERIENCE</i>	≥ 3 Years	15	26.3
	< 3 Years	42	73.7
<i>INDUSTRY CATEGORY</i>	Science & Chemical	6	10.5
	Energy	7	12.3
	Industrial and Manufacturing	5	8.8
	Oil, Gas & Petrochemical	5	8.8
	Technology & IT	17	29.8
	Services	14	24.5
	Other	3	5.3

## 2.2 EXPERIENCE AND INDUSTRY CATEGORIES

### 2.2.1 Experience Categories

It was of great importance to the researcher to find experienced business executives, who have insight into marketing practices and principles as well as experience in strategic management and business leadership. Although not all details of work experience and specific business unit knowledge is known, the author is satisfied that experience is sufficient, both based on the results as shown in Table 4.1, and from the selection criteria of the Executive MBA Programme at the University of Texas. Seen in this light, the specific age of each respondent will be ignored in favor of the marketing, management and overall business



experience of the respondent. In similar vain, it is not the purpose of this study to determine the effect of gender-related issues and the impact on perceptions of managers due to gender issues, and therefore the huge difference (91%: 9%) in the size of the two gender groups, is seen as inconsequential.

The respondents are highly experienced, with more than 61% of respondents, reporting overall business experience of more than 10 years. The sample mean indicated an average experience level of 6.25 years. (See Appendix B for further details.) The author was initially concerned with the low level of marketing experience reported, but for the following reasons, placated that the research results would still be valid and reliable:

1. Respondents who reported less than 3 years marketing experience or experience as a marketing practitioner, also reported a sample mean of 6.09 years experience in management. (12 Respondent reported zero marketing experience.) Due to the selection process for this group of respondents, and the large component of Marketing subject matter included in this MBA Programme, the researcher is satisfied that a high level of understanding of the marketing terminology used in the questionnaire, has been achieved. Management experience would also, by its very nature, imply a certain level of marketing experience or interaction with marketing practitioners that would equip respondents with the required level of understanding of the concepts and constructs used in the questionnaire. Further, when the questionnaire was tested with a group of lower management and marketing experience no significant misunderstandings were detected.
2. The author initially hypothesized that a higher level of marketing experience might affect the responses and/or importance ratings with regards to marketing related business issues such as brand building and market-orientation, but this was not the case. There was very little difference in the results when respondents with a high level of overall



experience and respondents with a high level of marketing experience reported. (See section 3.3 and 3.4 for empirical proof.)

3. It is the researcher's perception that respondents interpreted the question to refer to employment in a pure marketing function or as a dedicated marketing practitioner, rather than a reflection of the level of marketing knowledge obtained. The researcher bases this assumption on the fact that a large number of respondents reporting low marketing experience, also indicated high levels of experience in the management of service firms such as law firms, engineering consulting firms and financial services. This, according to the author, implies a certain level interaction and direct dealings with suppliers and customers – i.e. marketing experience and know-how
4. Lastly, in most cases that level of marketing experience is combined with or reported together with other indicators such as overall experience or number of years of management experience. In the case of industry references, respondents from industries such as agriculture, military services and science research, responses are placed in separate category, called "*Other*".

### 2.2.2 Industry Categories

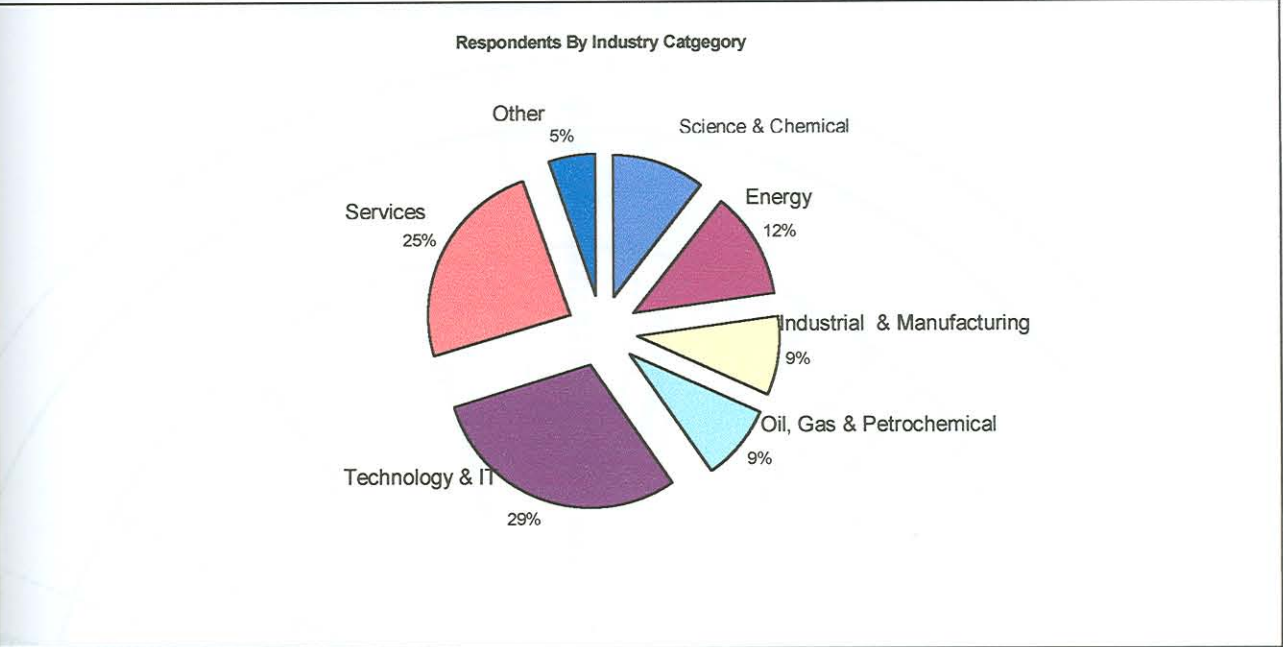
In an attempt to reduce the number of industry categories, from the original 28 different terms used, to a more manageable and meaningful number, the 57 responses were re-allocated into the following nine categories:

Agriculture,	Petrochemical & Oil,
Science & Chemistry,	Technology/IT/Electronics,
Energy,	Manufacturing,
Services,	Non-Profit, and US Military.

These categories were further reduced to 7, since there was only one respondent in each of the categories: Agriculture, Non-Profit and US Military. Also, since

these respondents do not fall into the categories of the specific products or services set out above, they were simply listed as *Other*.

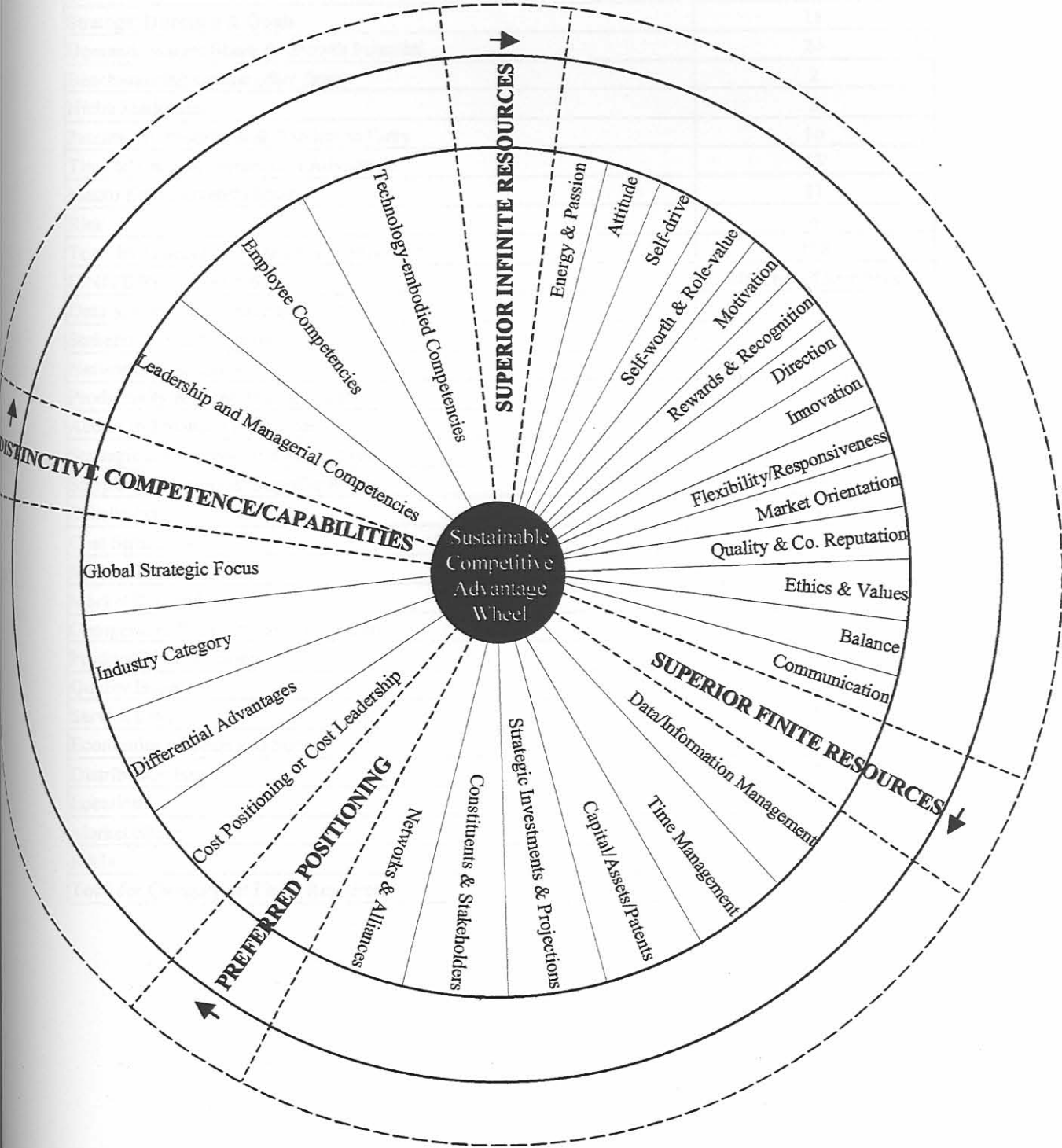
**Figure 4.1 Respondents by Industry Category**



Respondents used more than 100 terms to identify possible sources of SCA. These concepts could all be categorized under the 20 constructs mentioned in the questions of section B and section C of the questionnaire. In most cases respondents would list more than one concept to represent one construct, e.g. market demand and market share. To compare the **unprompted** concepts with the **prompted** concepts in a meaningful manner, the unprompted concepts were first reassigned to the 42 factors listed in Table 4.2 below, and then further reduced to the 20 constructs (as set out in sections B and C of the questionnaire). Then the results of all sections of A, B and C were summarized under the 4 domains or main constructs, as defined in section D of the questionnaire, and tested in section E of the same questionnaire.

All concepts and constructs and the domains under which they finally resort, can be seen in the reduced graphical model of the SCA Wheel, below.

Figure 4.2 Sustainable Competitive Advantage Wheel and its Constructs





**Table 4.2** *Factors to create a SCA and their frequency of mention*

<b>CONCEPT MENTIONED BY RESPONDENT</b>	<b>Number of Mentions</b>
<b>PREFERRED POSITIONING</b>	
Preferred Positioning i.t.o. Industry Category	4
Preferred Positioning i.t.o. Brand Image	13
Ethics and Values	0
Strategic Direction & Goals	18
Demand, Market Share & Growth Potential	24
Benchmarking against other firms	2
Niche Marketing	3
Patents, IP, Protection & Barriers to Entry	16
Time to Launch, Duration of Advantage	13
Macro Environmental Issues	11
Risk	4
Total for Category on Preferred Positioning	108
<b>FINITE RESOURCES</b>	<b>Number of Mentions</b>
Data & Information Management	0
Stakeholders & Constituents	0
Networks & Alliances	8
Productivity & Time Management	7
Access to Financial Resources	21
Strategic Investments and Projections	17
Supplier proximity & Supplier Power	12
Substitutes	4
Cost Structures	23
Market Trends	9
Market Research	10
Competitors & Competitive Reactions	20
Product Diversification	14
Quality Issues	13
Service Level	5
Economies of Scale and Scope	5
Distribution Issues	7
Location	2
Market Share	9
R&D	5
Total for Category on Finite Resources	299

INFINITE RESOURCES	Number of Mentions
Internal Communication & Co-ordination	3
Market & Competitive Orientation	25
Innovation & Creativity	9
Flexibility & Responsiveness	4
Motivation & Recognition	4
Attitude, Drive & Energy	2
Total for Category on Infinite Resources	47
CORE COMPETENCIES	Number of Mentions
Technology	6
Leadership Competencies	12
Core Competencies/Capabilities	31
Technology Embodied Competencies	1
Employee Competence & Buy-in	5
Total for Category on Competencies	55
TOTAL for ALL RESPONDENTS AND ALL SCA	509
SOURCES MENTIONED	

### 3. PART 2: QUESTIONNAIRE ANALYSIS

The questionnaire was divided into 5 sections, each with its own emphasis and design.

First, the author will deal with the analysis of each section of the questionnaire as a separate unit; then the results of the sections will be compared in order to come to conclusions with regards to the difference between section A (unprompted responses) and sections B, C, D and E (prompted responses). Finally, further emphasis will be placed on the comparison between results from perceptions about the individual concepts, versus the concepts categorized into constructs and domains. (See Appendix A for a full copy of the questionnaire.)

This section of chapter 4 is divided into five distinct areas:

1. Section A1 and A2 of the questionnaire: Unprompted Responses;  
[Data and graphs in Appendix B]
2. Section B & C: Prompted Responses;  
[Data and graphs in Appendix C]

3. Section D: Ability Ratings of Prompted Responses  
[Data and graphs in Appendix D]
4. Section E: Priority Ratings of Prompted Domains  
[Data and graphs in Appendix E]
5. Comparison of Unprompted Responses and Prompted Responses  
[Data and graphs in Appendix F]

### 3.1 ARGUMENTS IN THE CONSIDERATION OF DIFFERENT DESCRIPTIVE ANALYSIS METHODOLOGIES

In an effort to, (a) raise as many sources of competitive advantage, (b) not influence responses unduly by the experience or literature review of the researcher and (c) get a sense of the top-of-mind concepts and issues respondents would raise, two types of questions were asked. In question A, respondents could list any eight factors they would consider when doing future SCA planning. These responses were totally unprompted. In Question B and C, respondents were given a list of 20 possible sources of competitive advantage to first, select eight of the prompted sources of SCA, and then offer a priority rating between 1 and 10 to each of the 8 selected sources.

In order to test the effect of different analysis methods on the type of responses received, as well as the effect on the overall ranking of sources due to the different analysis methods, the researcher experimented with responses to question C (prompted responses). This specific question was selected due to the fact that the research is of a qualitative nature and the prompted responses would allow the researcher broad qualitative conclusions, which is in line with the overall focus of this study.

Two different analysis methodologies were used:

- (A) The priority ranking of a source was determined by doing a rank ordering of the average priority ratings. This means that the priority ranking of a source is determined by taking the sum of all the ratings and dividing it by the number or mentions for the total sample.



(B) The second method is based on consideration of the inferred ranking given to the sources by each individual respondent. To get a priority ranking of the individual sources, the ratings per respondent was ranked. Since the respondents could, and often did, allocate a rating (of say 10) to more than one source, a system as illustrated by the table below, was used. The illustration below is based on accepting that an individual respondent's standard of rating will be consistent. In order to give recognition to the frequency of high ratings given by an individual respondent, a rank order was determined by allocating the same rank to a repeated rating followed by the next rank, depending on the number of times a specific rating recurred (see the last row in the rankings of respondent 2, below).

**Table 4.3 Analysis methodology based on the inferred ranking by respondents**

Source	Respondent 1		Respondent 2		Respondent 3		Respondent 4	
	Rating	Rank	Rating	Rank	Rating	Rank	Rating	Rank
C1	10	1	10	1	10	1	9	1
C2	10	1	10	1	10	1	8	2
C3	10	1	10	1	9	3	8	2
C4	10	1	10	1	9	3	7	4
C5	10	1	10	1	8	5	6	5
C6	10	1	10	1	7	6	5	6
C7	10	1	10	1	7	6	2	7
C8	10	1	8	8	7	6	2	7

(See Appendix C for more details of the derived rating.)

Table 4.4 below allows the researcher to see the impact of the two analysis methodologies clearly.

Table 4.4 Impact on the relative ranking due to the two analysis methodologies

No	Statement	Rank Order based on Analysis A	New Rank Order based on Analysis B
C17	Leadership Capabilities	1	1
C5	Market Orientation	4	2
C14	Strategic Investments	3	3
C18	People Embodied Skills	5	4
C9	Attitude	2	5
C6	Innovation	7	6
C13	Access to financial Resources	6	7
C19	Technological skills	12	8
C1	Preferred industry category	9	9
C3	Ethics and Values	14	10
C7	Direction and Goals	8	11
C12	Productivity	10	12
C15	Technological Resources	16	13
C2	Brand Equity	15	14
C20	Ability to Adapt/Flexibility	13	15
C16	Data and Information Management Skills	11	16
C10	Stakeholders and Influencers	18	17
C11	Alliances and Networks	19	18
C4	Internal Communication	17	19
C8	Motivation of Staff	20	20

Using analysis methodology A, as discussed above, the following sources appear in the top 5 ranked positions:

- 1 *Leadership Capabilities and Skills*
- 2 *Staff Attitude*
- 3 *Strategic Investments and Projections*
- 4 *Marketing and Competitive Orientation of the business*
- 5 *People Embodied Competencies and Skills*

By re-evaluating the responses according to methodology B, described above, the following sources emerge as the top five prompted sources of SCA (in the correct order of preference)

- 1 *Leadership Capabilities and Skills*
- 2 *Marketing and Competitive Orientation*
- 3 *Strategic Investments and Projections*
- 4 *People Embodied Competencies and Skills*
- 5 *Staff/Personnel Attitude.*

Although the top rank order differs slightly for the two methods, the researcher is of the opinion that the impact is not significant, since the topmost ranked sources remains the same and the relative position in the overall list is relatively unchanged. A similar picture emerges for the lowest ranked sources. Note that the sources: Stakeholders and Influencers, Strategic Alliances, Internal Communication and lastly Motivation remains, in both cases, the four lowliest ranked sources of SCA for prompted responses.

Since both methods deliver results that are (a) very comparable and (b) the different analysis methodologies did not affect the broad qualitative trends, the researcher elected to use the first analysis method throughout the rest of this study. The main purpose of the study is to produce qualitative results, focusing on broad trends, rather than on empirical, factual results. The researcher therefore applied analysis methodology A as described above in the rest of the descriptive sample analysis described in this chapter.



Should the researcher purely consider the frequency of mentions of a certain source of SCA, the following five sources received the highest number of mentions:

- *Marketing and Customer Orientation* [39 mentions]
- *People Embodied Competencies and Skills* [37 mentions]
- *Leadership Competencies and Skills* [36 mentions]
- *Technology* [33 mentions]
- *Innovation and Creativity* [31 mentions].

(See Appendix C for graphical display)

It is interesting to note that the source *Staff Attitude* only received 19 mentions, but those respondents who did select this source, gave it an above-average high rating. The frequency of mentions for the four prompted sources of SCA, *Stakeholders and Influencers, Alliances and Networks, Internal Communication and Motivation*, was well below the average number of mentions of 22 for the sample group. (See Appendix for the number of mentions.) The least important source of *Motivation of Staff* (c8) only received four mentions, and those mentions had a low importance rating.

### 3.2 SECTION A1 AND A2: UNPROMPTED RESPONSES

Respondents were asked to list at least eight 8 factors they would consider when doing future planning to create SCA for their business or SBU. In question A2 they were asked to prioritize the factors listed. Since this was an open-ended question, no rating scale could be predetermined. Respondents were asked to rank their suggestions, using 1 as the most important factor and 8 as the least important factor. To compare these results with those of section B through E, where priority rankings were on a descending scale, the factors provided in question A were inverted and a score of between 0 (not mentioned) and 8 (highest priority ranking, i.e. the respondent had rated it as “1”) was allocated. Each item was individually scored on this 9-point ranking scale.

In a large number of cases, respondents provided factors/sources that could be interpreted as the same or similar factors, for example, “government” and “law” or “patents” and “protection of intellectual property”. In these cases the highest ranking was taken as the one representing the opinion of that respondent.

To reflect this relative importance of the concept, the number of times a certain concept (and later, construct) is mentioned, will also be reported, as well as the mode and the mean. Table 4.5 displays these results.

Table 4.5 Factors to create a SCA and their priority rating

CONCEPT MENTIONED BY RESPONDENT	Number of Mentions	Highest Importance Ranking	Median	Average Ranking	Overall Ranking of the Source
<b>PREFERRED POSITIONING</b>					
Preferred Positioning: Industry Category	4	2	2.5	2.5	1
Preferred Positioning: Brand Image	13	1	2.0	3.3	4
Ethics & Values	-	-	-	-	-
Strategic Direction & Goals	18	1	4.0	3.8	10
Demand, Market Share & Growth Potential	24	1	3.0	3.4	6
Benchmarking against Other Firms	2	3	5.0	5.0	29
Niche Marketing	3	4	4.0	5.0	29
Patents, IP, Protection & Barriers to Entry	16	1	3.0	3.8	10
Time to Launch, Duration of Advantage	13	1	5.0	3.5	7
Macro Environmental Issues	11	2	4.0	4.7	25
Risk	4	2	4.5	4.3	25
Total for Category on Preferred Positioning	108				
<b>FINITE RESOURCES</b>					
Data & Information Management	-	-	-	-	-
Stakeholders & Constituents	-	-	-	-	-
Networks & Alliances	8	1	5.0	4.5	24
Productivity & Time Management	7	1	3.0	3.6	9
Access to Financial Resources	21	1	5.0	4.3	21
Strategic Investments and Projections	17	1	5.0	5.2	31
Supplier Proximity & Supplier Power	12	4	6.0	6.3	37
Substitutes	4	4	4.5	5.3	34
Cost Structures	23	1	4.0	4.1	17
Market Trends	9	2	4.0	4.2	18
Market Research	10	1	5.5	4.9	27
Competitors & Competitive Reactions	20	1	4.0	4.2	15
Product Diversification	14	2	5.0	4.9	27



Quality Issues	13	1	6.0	5.2	31
Service Level	5	3	6.0	5.2	31
Economies of Scale and Scope	5	1	3.0	3.8	10
Distribution Issues	7	2	6.0	5.4	35
Location	2	1	3.5	3.5	7
Market Share	9	1	4.0	4.3	21
R&D	5	1	3.0	4.0	15
Total for Category on Finite Resources	299				
<b>INFINITE RESOURCES</b>	<b>Number of Mentions</b>	<b>Highest Ranking</b>	<b>Median</b>	<b>Average Ranking</b>	<b>Overall Ranking of the Source</b>
Internal Communication & Co-ordination	3	2	5.0	4.7	25
Market & Competitive Orientation	25	1	3.0	3.8	10
Innovation & Creativity	9	2	4.0	4.2	18
Flexibility & Responsiveness	4	3	7.0	6.3	37
Motivation & Recognition	4	1	3.5	3.8	10
Attitude, Drive & Energy	2	1	3.0	3.0	2
Total for Category on Infinite Resources	47				
<b>CORE COMPETENCIES</b>	<b>Number of Mentions</b>	<b>Highest Ranking</b>	<b>Median</b>	<b>Average Ranking</b>	<b>Overall Ranking of the Source</b>
Technology	6	2	3.0	3.2	3
Leadership Competencies	12	1	3.0	3.3	4
Core Competencies/Capabilities	31	1	4.0	4.0	15
Technology Embodied Competencies	1	6	6.0	6.0	36
Employee Competence & Buy-in	5	6	7.0	6.8	39
Total for Category on Competencies	55				
TOTAL for ALL RESPONDENTS AND ALL SCA SOURCES MENTIONED	509				

By far the largest number of respondents (31 individual mentions) referred to issues with regards to competencies of staff, capabilities to deal with the suggested developments and the overall capabilities of their firm or business to implement the planned strategy, as important issues or *the* most important issue to be considered when designing strategic plans for the future SCA of their firm or SBU. Not only was it mentioned by a large number of respondents, but the highest ranking of 1, was given several times, leading to a sample mean of 4.0 and a median of 4.0. Second to Core Competencies, Market & Competitive Orientation received the largest number of references (25 in total).

Although fewer respondents mentioned it as an issue, it received a higher sample average of 3.8 and a median ranking of 3.0. Market demand and growth potential of the selected market received the highest mean ranking (3.4), although this factor received only the 3<sup>rd</sup>



largest number of mentions (24). Issues such as cost of production, levels of fixed and variable costs and cost: profit ratios resorted under the heading of Cost Structures in Table 4.2. It was mentioned twenty three (23) times as an important factor, received the highest possible ranking of 1 only a few times, and therefore had a sample mean of 4.1. The median importance ranking given to this factor was 4.0.

The ranking scale assigned to this question was designed in such a manner, that the lower the average sample rating, the higher the priority the issues received according to the respondents. Looking at the lowest average rating of 2.5, Preferred Positioning in terms of industry category has received lowest average ranking, making it the factor with the highest priority score of all factors. It is important to note though, that this factor received only 4 mentions. Seen in the light of the reasoning in paragraph 3.1 above, no further analysis is done.

Since the difference between the lowest averages are almost negligible, and to round the averages off to the nearest unit would bring all five sample averages down to 3, the following 5 factors also need serious consideration:

Preferred positioning in terms of brand image and reputation; Demand, Market Share and Growth Potential; Personnel Attitude, Commitment, Energy and Drive; Access to Technology and Leadership Competencies.

**Table 4.6** *Factors receiving the highest ranking*

<b>FACTOR MENTIONED BY RESPONDENT</b>	<b>Number of Mentions</b>	<b>Highest Rating</b>	<b>Median Rating</b>	<b>Average Rating</b>	<b>Overall Ranking</b>
Preferred Positioning: Industry Category	4	2	2.5	2.5	1
Preferred Positioning: Brand Image	13	1	2.0	3.3	4
Demand, Market Share & Growth Potential	24	1	3.0	3.4	6
Attitude, Drive & Energy	2	1	3.0	3.0	2
Technology	6	2	3.0	3.2	3
Leadership Competencies	12	1	3.0	3.3	4

Should one re-assign the 42 unprompted issues listed by the respondents to the 4 defined domains (as set out in Section D and E of the questionnaire), it is interesting to note that the four most mentioned factors resorts under one each of the 4 domains; i.e. Preferred

Positioning (PP), Superior Finite Resources (FR) Superior Infinite Resources (IR), and Superior Competencies and Capabilities (CC).

Should one purely consider frequency of mention, Table 4.7 below reflects the top 5 most frequently mentioned unprompted sources of SCA:

**Table 4.7** *Frequency of mention of unprompted sources of SCA*

<b>Sources of Sustainable Competitive Advantage</b>	<b>Number of Mentions</b>
Core Competencies	31
Market and Competitor Orientation	25
Demand, Market Size, Growth Potential	24
Cost Structures	23
Access to Financial Resources	21

Factors with the highest average ranking fall under the domain of Preferred Positioning. Should the top six average rankings be considered, the only domain not represented by any factor, is that of Superior Finite Resources (FR). Detailed analysis of the Finite Resources domain shows, however, that in total, by far the largest number of single mentions of sources, resorted under this domain. It can be deduced that, although access to superior finite resources is of serious concern to the respondents and certainly needs consideration when planning for SCA, factors resorting under Superior Finite Resources (FR) are not as important as those falling under the domains of Preferred Positioning (PP), Superior Infinite Resources (IR), and Superior Competencies and Capabilities (CC).

Selecting only those factors that received the highest priority ranking (1; the lowest is 8) and an average ranking of less than or equal to 4, the top 14 factors emerged. These are listed in Table 4.8 with their number of mentions and their highest, median, and average ratings. Since these factors are also mostly mentioned by a large number of respondents, the author is satisfied that these factors are indeed the most important top-of-mind sources of SCA for the respondents.

**Table 4.8 Factors with a ranking of 1 and a sample average ranking of  $\leq 4$**

CONCEPT MENTIONED BY RESPONDENT	Number of Mentions	Highest Ranking	Median Ranking	Average Ranking
<b>Preferred Market Positioning (PP)</b>				
Preferred Positioning: Brand Image	13	1	2.0	3.3
Strategic Direction & Goals	18	1	4.0	3.8
Demand, Market Share & Growth Potential	24	1	3.0	3.4
Patents, IP, Protection & Barriers to Entry	16	1	3.0	3.8
Time to launch, Duration of advantage	13	1	5.0	3.5
<b>Access to Superior Finite Resources (FR)</b>				
Productivity & Time Management	7	1	3.0	3.6
Economies of Scale & Scope	5	1	3.0	3.8
Location	2	1	3.5	3.5
Research & Development	5	1	3.0	4.0
<b>Exploiting Infinite Resources (IR)</b>				
Market & Competitive Orientation	25	1	3.0	3.8
Motivation & Recognition	4	1	3.5	3.8
Attitude, Drive & Energy	2	1	3.0	3.0
<b>Superior Competencies and Capabilities (CC)</b>				
Leadership Competencies	12	1	3.0	3.3
Core Competencies/Capabilities	31	1	4.0	4.0

See Appendix A for further details and additional graphs and figures.

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### 3.3 SECTION B AND C: PROMPTED RESPONSES

All sections of the questionnaire, subsequent to Sections A1 and A2, provide respondents with a list of prompted factors as well as with a rating scale. For Sections B and C a rating scale of 0 to 10 is provided:

0 = Not Important to 10 = Extremely Important.

Respondents were asked to first select *only* 8 factors from the list of 20. Thereafter they were requested to rate only the 8 selected factors.

#### 3.3.1 Independent Concepts within Section C

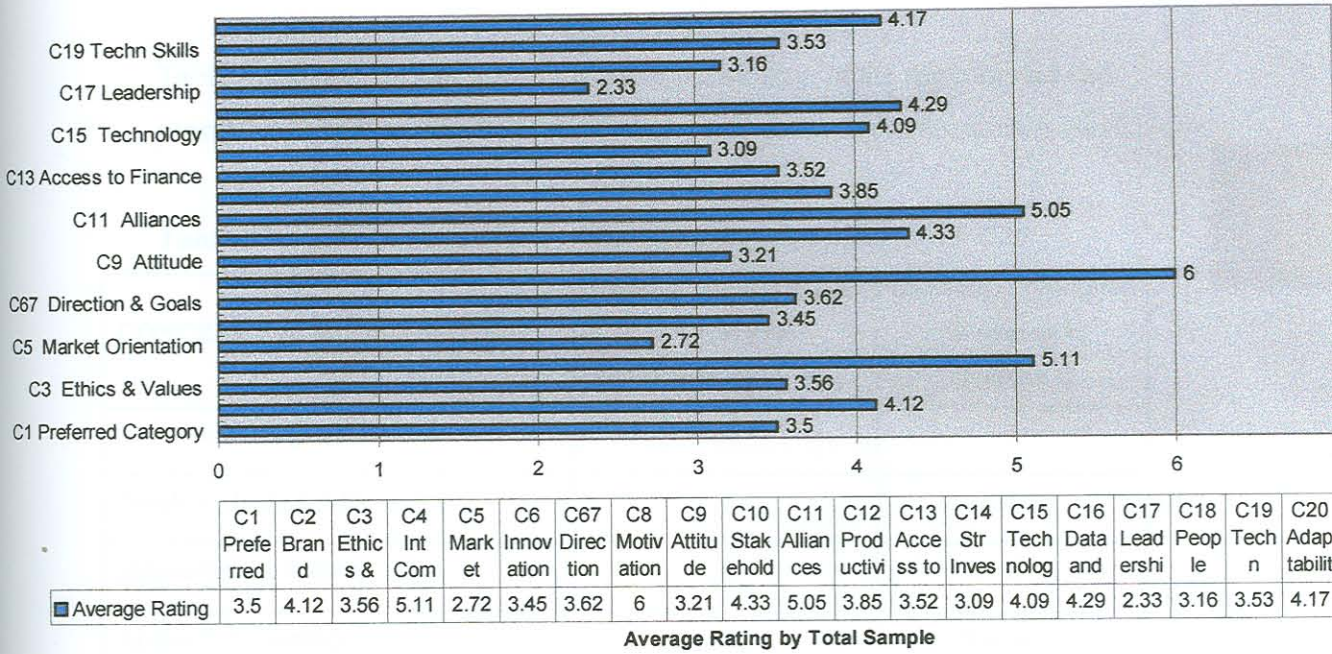
##### 3.3.1.1 Overall Rating per Concept

Respondents were asked to provide priority ratings for each independent concept. For ease of reporting, the individual concepts will be coded from C1 to C20, in the same order as the order with which they are positioned in Question C of the survey questionnaire in Appendix A. The average priority rating for the total sample was calculated and the resulting top five rank is illustrated below and in Figure 4.3.

The top five concepts to appear when considering the average rating of the total sample, as the most important factors to consider when formulating a strategic plan to create SCA for a firm in the industries represented by the respondent group:

1. Leadership Competencies (Management) [c17 = 2.33];
2. Market and Competitive Orientation [c5 = 2.72];
3. Strategic Investments and Projections [c14 = 3.09]
4. People Embodied Skills and Competencies [c18=3.16];
5. Staff Attitude [c9 = 3.21]

Figure 4.3 Average Priority Rating of Prompted Sources by the Total Respondent Group



3.3.1.2 Average Rating Per Concept: Comparison between section A2 and C

Comparing these results with concepts gathered in section A, it could be argued that the concept Preferred Positioning in terms of brand image and reputation is comparable with the concept of market and competitive orientation, since both factors imply a certain level of concern with the needs of the customers and their propensity to buy from a particular firm. In both the unprompted and prompted sections of the questionnaire, the source of Leadership Competencies was mentioned as of great importance. A large number of respondents not only mentioned the issues of Personnel Attitude and Drive as important to consider when planning for SCA(s), but also rated it as highly important. It is, therefore, interesting to notice the low rating, therefore low rank order this factor receives in the prompted section; although one could assume a certain level of the importance of staff and their attitude, abilities and support is implied in the concept rated overall as the fourth most important issue.



Table 4.9 shows for the shifts in relative positioning of the unprompted and prompted factors as reflected by the answers to questions in sections A and C.

**Table 4.9 Shifts in ranking of the concepts of section C: C1-C20**

<b>CONCEPT</b>	<b>Ranking of Unprompted Sources as in Question A</b>	<b>Ranking of Prompted Sources as in Question C</b>
Leadership Competencies	2	1
People Embodied Skills	3	4
Innovation & Creativity	4	6
Access to Technology	5	Below 10
Strategic Investments & Projections	Below 10	3
Market & Competitor Orientation	1	2
Personnel Attitude, Energy & Drive	Below 10	5

### 3.3.1.3 Priority Rating of Prompted Concepts by Experience Level of Respondents

For a better view on reasons for the shift depicted in Table 4.6, the results of Questions B and C must be analyzed by industry category and by sub-categories of the number of years experience in field.

The respondents were divided into 3 predetermined groups, based on the level of overall business experience reported in the classification section of the questionnaire. The 3 sub-categories are: (1) Respondents with more than 15 years overall business experience, (2) Respondents with more than or equal to 10 years, but less than 15 years overall business experience, and (3) Respondents with less than 10 years business experience. Although categories were decided upon before analyzing the classification details, three groups emerged:



1.  $X \geq 15$  years, with 14 members
2.  $10 \leq Y < 15$  years, with 21 members
3.  $Z < 10$  years, with 22 members.

Since the number of respondents in a group differed, and a more reliable result will be obtained by finding the sub-category mean (Doyle and Wong 1997), only the average rating per experience category will be discussed here. (For more details consult Appendix C.)

It is clear from Figure 4.4 the data that the two most experienced sub-groups, follow a reasonable similar pattern with regards to their average priority rating of the individual concepts. One could therefore hypothesize that the level of business experience plays a significant role in perceptions of respondents (or managers) concerning those concepts most likely to be taken into account when future planning to create or sustain a competitive advantage is considered. If the effect of the lower level of experience is ignored, then the five concepts emerge as the factors most highly rated.

Personnel Attitude, Energy & Drive

Strategic Investments & Projections

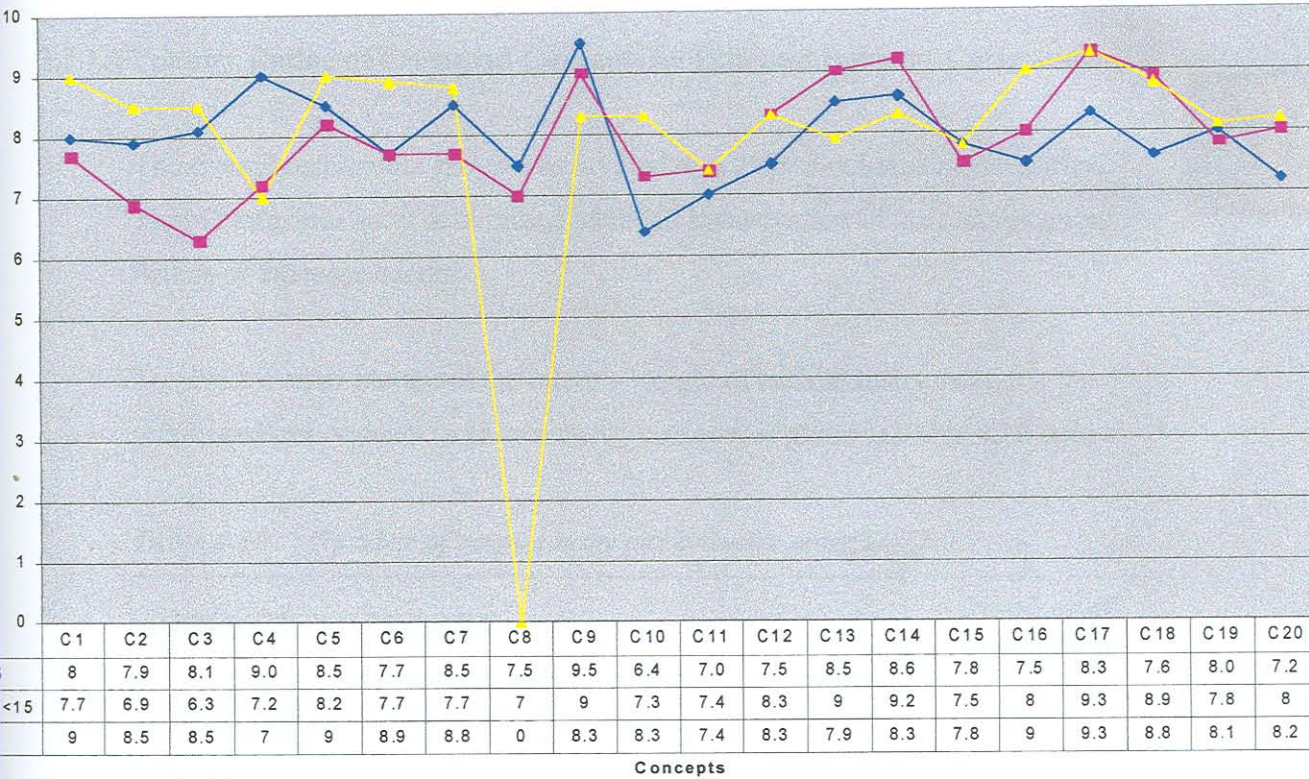
Leadership Competencies

Access to Financial Resources

Market & Competitive Orientation.

p.t.o

Figure 4.4 Average Rating of All Concepts by Total Business Experience



The concept of Leadership Competencies received the highest sub-category mean for the two groups with less than 15 years overall business experience. Personnel/Staff Attitude, Drive & Energy had the highest sub-group mean for those respondents with more than or equal to 15 years of business experience. What is interesting to notice, is that all 20 concepts were selected when respondents were given the choice to non-select some of the prompted concepts. (This is not true for the subgroup with less than 10 years experience, since Personnel Attitude, Drive & Energy did not receive a single mention from this group). If the effect of the influence of group Z (less than 10 years experience) is negated, then the concept with the lowest overall average is that of Networks and Alliances. Although this factor was recorded as important 19 times by the respondents, it received a high importance rating only twice.



### 3.3.1.4 Priority Rating of Prompted Concepts by Different Industry Categories

The overall respondent group was divided into 7 distinct industry categories. These categories were determined after full investigation of the classification details of the respondents.

To give a clearer picture of the relative weight of each industry category, the number of respondents in each industry category is given in Table 4.10 below.

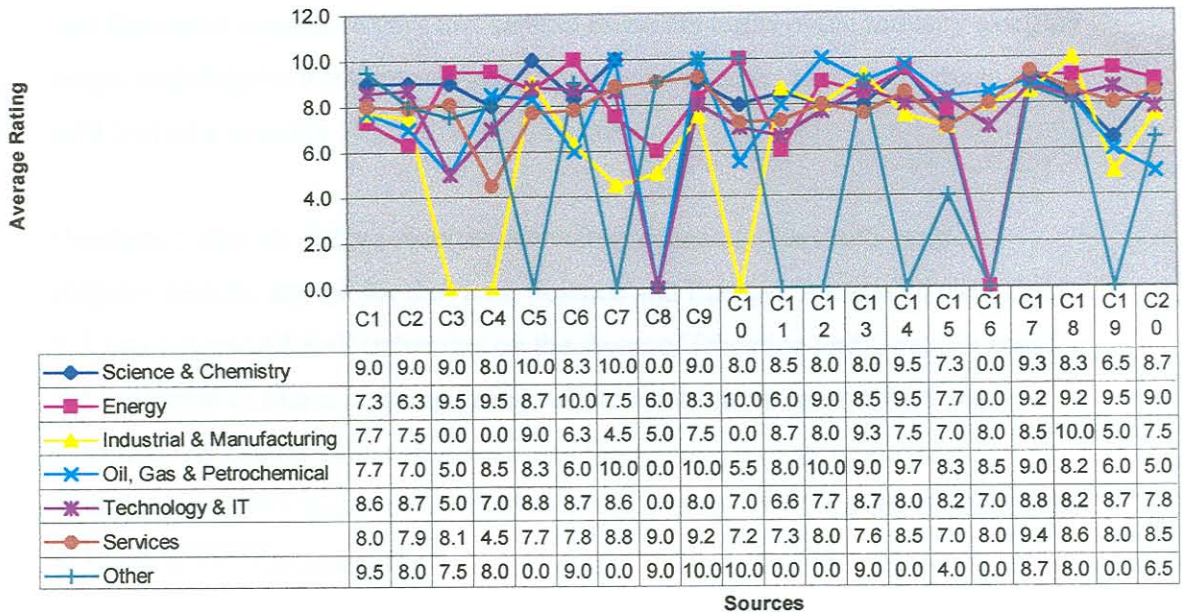
*Table 4.10 Number of respondents per industry category*

<b>INDUSTRY CATEGORY</b>	<b>Number of Respondents</b>
Science and Chemistry	6
Energy	7
Manufacturing & Industry	5
Petrochemical, Oil & Gas	5
Technology and IT	17
Services	14
Other	3
Total	57

It is noticeable, as demonstrated in Figure 4.5, that there are 8 concepts for which the industry category has achieved a sample mean of 10. This implies that every single respondent who is a member of that industry category has given the highest possible priority rating for that specific concept.



Figure 4.5 Prompted Responses Cross Tabulated by Industry Subgroups



The concepts mentioned with an industry mean of 10, the industry from which the respondents came, and the number of respondents in each group are set out in Table 4.11 below.

Table 4.11 Concepts with an industry mean of 10

Concept	Industry	Group Size
Market Orientation	Science and Chemical	6
Innovation & Creativity	Energy	7
Direction & Goals	Science	6
Direction & Goals	Petrochemical	5
Personnel Attitude, Drive	Petrochemical	5
Stakeholders & Constituents	Energy	7
Product	Petrochemical	5
People-embodied Skills	Industrial	5

As noted several times before, Personnel Motivation (specified as Recognition and Rewards) received a very low sample mean. In terms of the industry category mean, respondents from the sub-category Service Industry allocated a mean rating of 9 (out of a possible 10) to this SCA source.

Business Ethics & Values receive a subcategory mean of below 5 from all industry sectors, except for Services, Science and Energy. A mean of more than 7.5 was achieved for all industries on the factor of Direction and Goals, except for the Industrial & Manufacturing group, where a sub-group mean of 4.5 was recorded. In similar vein, the sub-groups Energy & Sciences recorded a significantly lower mean (of 0), relative to the average of 7.9 for the concept Data & Information Management.

One might expect certain industry members to show some bias to concepts directly related, and/or integrated into, and/or of recurring nature to their industry. For example, one might expect respondents from the IT or Technology Industry Sector to be more likely to give a high priority rating to the two concepts, Technology and Technology Embodied Competencies. One might also expect respondents from the Service Industry to record an increased priority rating on issues such as Personnel Attitude & Drive, and People Embodied Competencies. In the case of people-motivated concepts such as Leadership Competencies, Motivation and Attitude certainly received a sample mean for the Services Industry of equal to or above 9. People Embodied Competencies and Direction and Goals received sample mean of just below 9 - 8.6 and 8.8 respectively.

Further research is required, but a certain level of agreement with the expected trend with regards to the tendency of respondents from the Technology Industry, was shown. Although the concepts, Technology and Technology Embodied Competencies, did not receive the highest sample mean for this group, there was a mere 0.1 and 0.4 difference in the sample mean for those concepts and the highest

rated concept for that group - Market & Competitor Orientation and Leadership Competencies.

### 3.3.2 Questions in Section C as Interdependent Concepts

Section 3.2 of Chapter 4 discusses the way in which the unprompted concepts were re-assigned to 4 domains. The 20 concepts listed in Section B of the questionnaire, was re-assigned to the domains defined in Sections D and E of the questionnaire.

<b>Market Positioning</b>	The positioning a firm achieves or obtains in the minds of all constituents. (PP)
<b>Finite Resources</b>	Limited tangible resources such as machines, time and money. (FR)
<b>Infinite Resources</b>	Unlimited and infinitely available resources such as passion, energy, direction, motivation, innovation, etc. (IR)
<b>Competencies and Capabilities</b>	Human- and technology-embodied skills, experience and knowledge to which the business has access. (CC)

#### 3.3.2.1 Priority Rating of the four Domains by the Total Sample Group

Table 4.12 sets out the overall priority rating of the 4 domains by the total sample group as a whole. It would be prudent to investigate the affect of grouping the respondents into different subgroups to see the affect this might have on the results, since there is so little difference in the priority rating of the 4 domains.

**Table 4.12** *Priority rating of all four domains by the total sample group*

	Preferred Positioning PP	Finite Resources FR	Infinite Resources IR	Competencies & Capabilities CC
Average Priority Rating	8.0	8.1	8.3	8.4



The subgroups to be discussed and further investigated are related to experience and industry sector subgroups, and are set out below.

**Table 4.13** *Sub-categories of the respondent group*

<b>Main Category</b>	<b>S u b - C a t e g o r y</b>	<b>Average Experience ( I n Y e a r s )</b>	<b>Number of Respondents</b>
Respondents	Overall Respondent Group	12.0	57
Industry	Science and Chemistry	9.8	6
	Energy	11.4	7
	Industrial & Manufacturing	9.6	5
	Petrochemical	14.2	5
	Technology, IT	10.9	17
	Services	12.6	14
	Other	23.0	3
Overall Business Experience	More than 15 Years Experience	20.4	14
	Between 10 and 15 Years	11.7	21
	Fewer than 10 Years Experience	7.1	22
Marketing Experience	More than, or equal to 3 Years Marketing Experience	11.5	15
	Fewer than 3 Years Experience	12.3	42

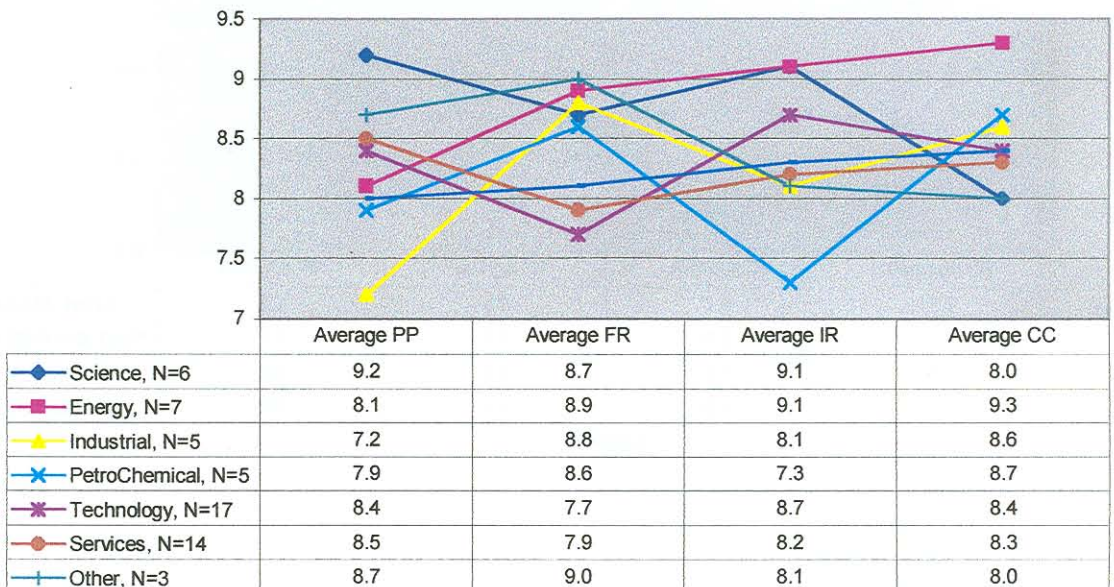
## 2.2 Average Priority Rating of 4 Domains by Different Industry Subcategories

There is a high level of correspondence in priority rating of the 4 domains across industry subgroups. All 4 domains had sample means of well above 8.0. There is, therefore, not a single domain that is considered to be of little or no importance with regards to their perceived role in creating SCA for a firm or SBU.

Some points of interest are: (a) for the domain Preferred Positioning, and subgroup Science& Chemistry a sample mean of 9.2 was measured; and (b) for this same domain, the lowest mean of 7.2 was recorded for the industry subgroup of Industrial & Manufacturing

A very low sample mean of 7.3 was achieved for the subgroup Petrochemical & Oil Industry, with reference to the domain Infinite Resources. The highest mean, 9.3, was recorded for the Industry subgroup Energy, and the domain Superior Competencies and Capabilities. (See Appendix D for details of the responses to sections B and C of the questionnaire.)

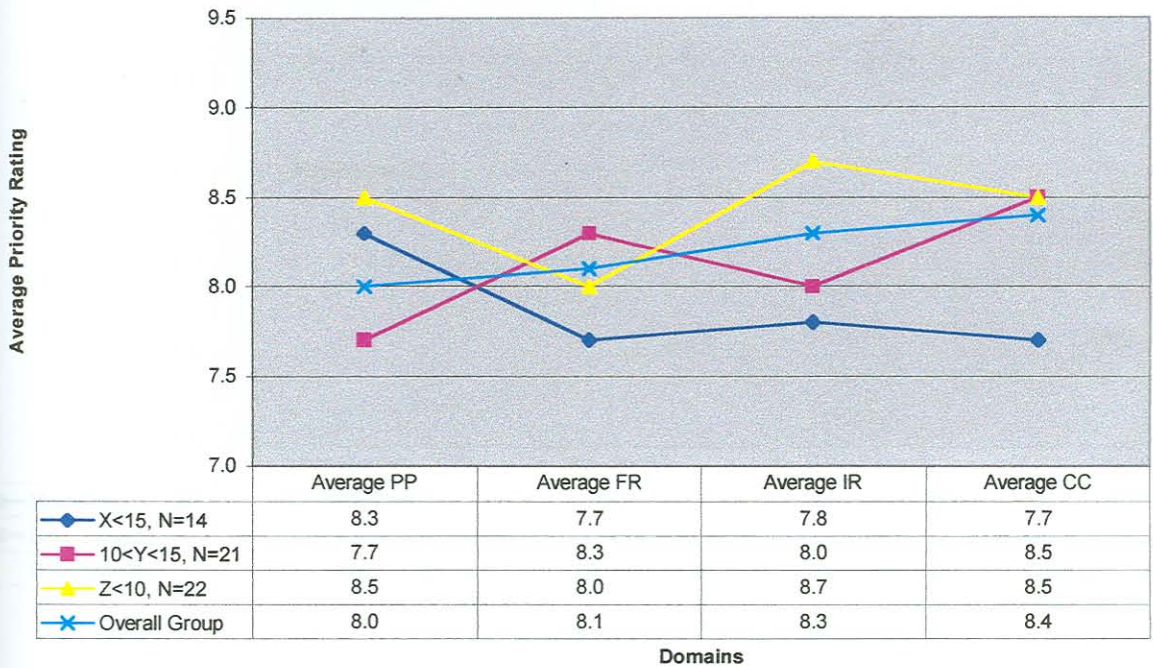
*Figure 4.6 Average Priority Rating of 4 Domains by Respondents from the Different Industry Categories*



### 3.3.2.3 Average Priority Rating of 4 Domains by Different Experience Level Subgroups

The low level of difference in average priority rating of the 4 domains is clearly demonstrated in Figure 4.7, since all means fall between the value of 7.7 and 8.7. It is also noticeable, that there is a difference in opinion, although not very significant, between the respondents with the highest level of experience, and those with the lowest level of overall business experience. This is reflected in the overall group mean that stays at 8. It seems that the overall business experience level does not have a very large impact when the average experience as high as for this group.

Figure 4.7: Average Priority Rating of the 4 Domains by Experience Level Subgroups

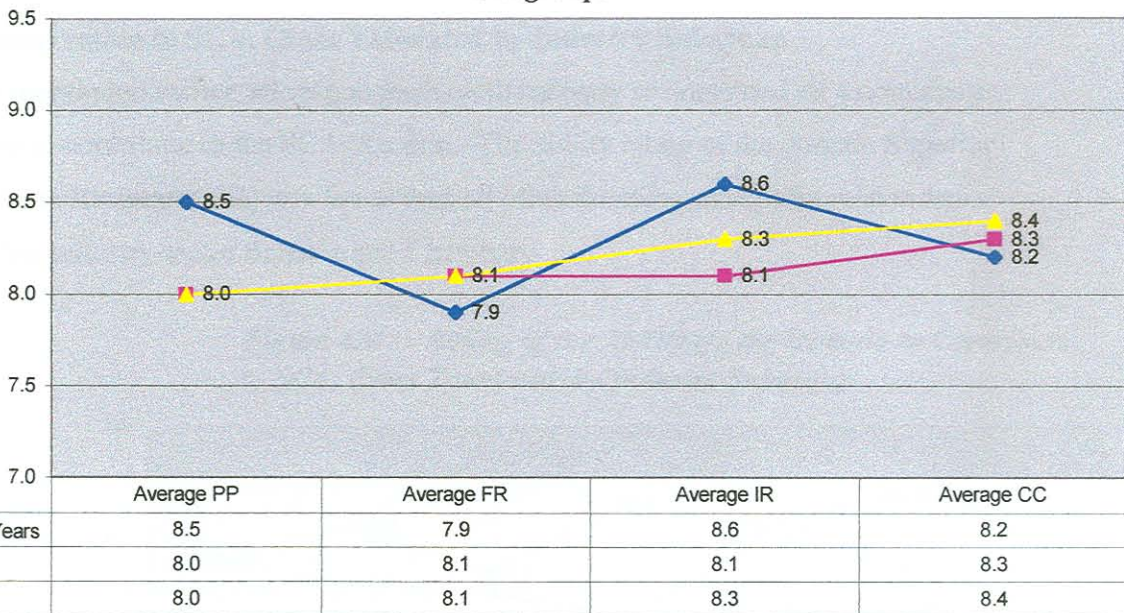




### 3.3.2.4. Average Priority Rating of 4 Domains by Different Marketing Experience Level Subgroups

The author was interested to find out what impact the level of marketing experience might n respondents' perceptions about the 4 domains. The picture that emerged was quite similar to the one reported in section 3.3.2.1 of Chapter 4, with no sub-group recording a mean of less than 7.9 or higher than 8.6. Once again a clear indication that all 4 domains are considered of high importance when the respondents consider the role they could play in creating a sustainable competitive advantage (SCA) for their business or strategic business unit.

**Figure 4.8 Average Priority Rating of 4 Domains by Marketing Experience Level Subgroups**



### 3.4 Section D: Prompted Responses for the 4 Domains

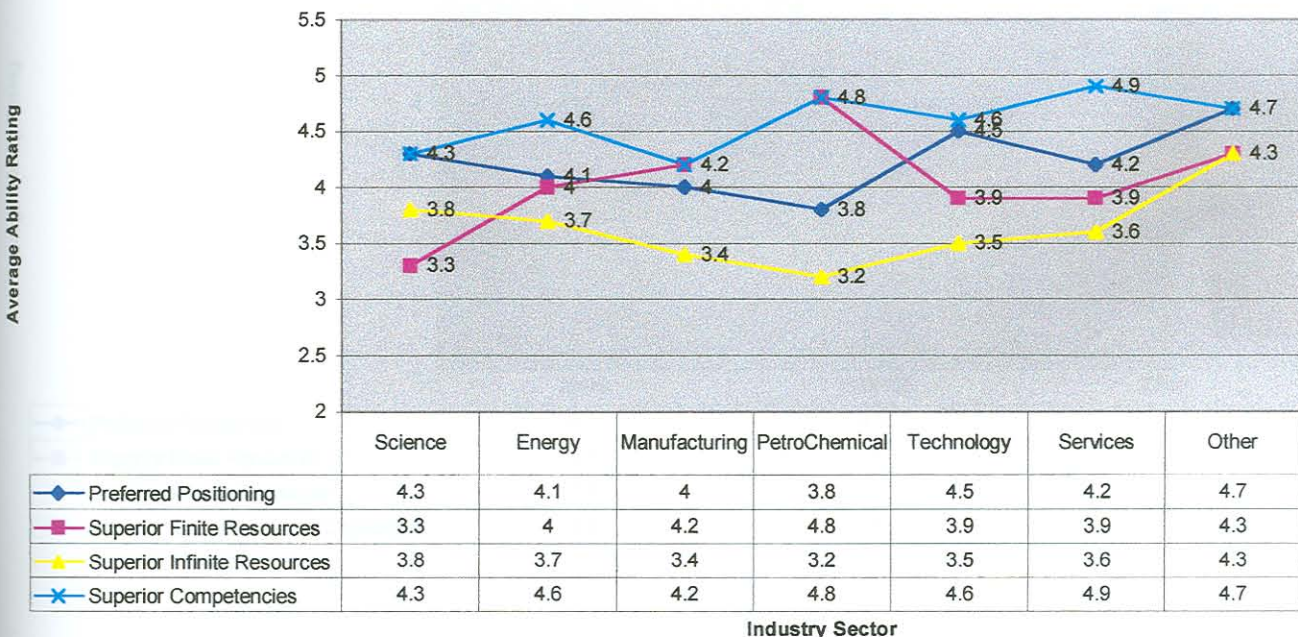
Respondents were asked to assess the ability or in-ability of the 4 domains to contribute to the firm’s SCA(s). A rating scale of 1 (Do not agree at all) to 5 (Totally agree) was provided.

When observing the group as a whole, it is clear that not one of the 4 domains received a sample mean ability rating of less than 3. Since a rating of 3 is the central or neutral position on the scale of 1 to 5, this means that all respondents agreed positively to the ability of all 4 domains to contribute to the SCA(s) of a SBU or firm. In order to get a more detailed view on the results of the survey, the responses are analyzed and reported in the sub-categories of Industry Sector, Overall Business Experience and Level of Marketing Experience.

#### 3.4.1 Contribution to SCA, Cross Tabulated by Industry Subgroup

As mentioned earlier, all respondents of all industry sectors rated all 4 domains as able to contribute to the SCA of a firm. The ability rating of the domain Superior Infinite Resources (IR) was lower than all other domains, except for respondents of the industry sector Science and Chemistry

*Figure 4.9 Rating of the Ability tfo the Domain to Contribute to SCA, Cross Tabulated by Industry Subgroup*





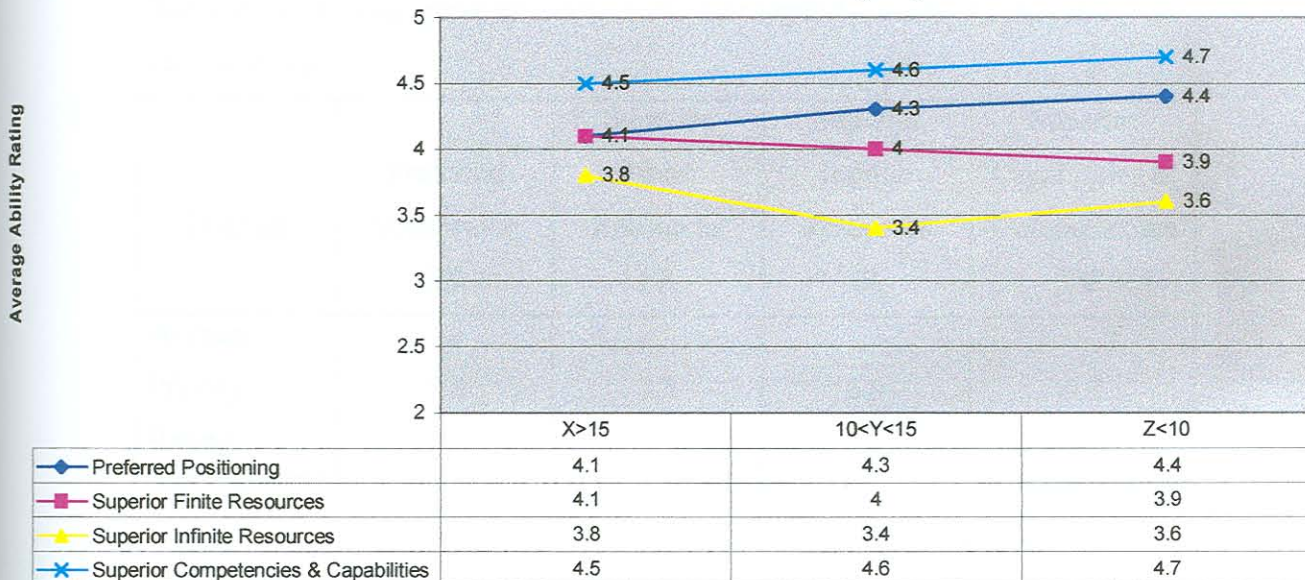
The domain of Superior Competencies and Capabilities received in all instances the highest average ability rating by all industry sectors. This high level of confidence was only recorded for the domain Superior Finite Resources (4.8 mean rating) by respondents from the Petrochemical, Oil & Gas subgroup. Also notice that the respondents from the industry sector Science & Chemistry considered Superior Finite Resources able, but least able of all domains, to contribute to the SCA of firms.

The domain of Superior Competencies and Capabilities (CC), recorded a reasonably consistent median rating of 4 over all industry sectors. The lowest ability to contribute for this sample, was recorded by the Industry sector Petrochemical, and the highest rating by the grouping Other. (The researcher suggests that this group’s results will unduly skew the picture and should therefore be ignored.)

### 3.4.2 Contribution Ability, Cross Tabulated by Experience Level Subgroup

A simple analysis of mean differences between the business experience level subgroups, shows very similar trends, with a sample low for the domain IR and a clear sample high of over 4.5 for the domain CC.

Figure 4.10 Rating of the Ability of a Domain to Contribute to SCA Cross Tabulated by Experience Level





(Since subdividing the sample group into Marketing Experience subgroups would only attempt to break experience level down into more detail, and does not offer a significant contribution to results to this point, the researcher find this unnecessary in the light of the results and will merely attach details for further perusal in Annexure D)

### 3.5 SECTION E: PROMPTED IMPORTANCE RATING OF THE 4 DOMAINS

#### 3.5.1 Prompted Priority Ratings for all four Domains by the Total Sample Group

In this section of the questionnaire, all concepts were divided into the 4 domains as defined in paragraph 3.3.2 of Chapter 4. The respondents were asked to rate the four domains in terms of the priority placed on each in terms of the role they could play in creating sustainable competitive advantages for the SBUs in their business or the firms in their industry. A rating scale of 0 (No important at all) to 10 (Extremely important) was provided.

When looking at the total respondent group's priority ratings for the 4 domains, all domains received a sample mean rating of well above 5. The sample mean for all respondents and all four (4) domains never drops below 6.8.

*Table 4.14 Average priority rating of the 4 prompted domains by the total sample group*

Domain	Preferred Positioning PP	Superior Finite Resources FR	Superior Infinite Resources IR	Superior Capabilities & Competencies CC
Average Priority Rating	7.8	7.5	6.9	8.7

### 3.5.2 Priority Rating By Respondents from different Experience Level Subgroups

Should one investigate individual priority ratings, any single rating only drops below a rating of 5, for merely 16 out of the possible 228 mentions. The researcher deduces from these ratings that respondents find all 4 domains important considerations for creating and sustaining CA for their firms or businesses.

Analysis of the responses by different experience level subgroups adds almost no additional insights into the priority rating of the 4 domains, and merely confirms the original finding for the overall sample ratings, sample means and medians as expressed earlier in paragraph 3.5.1.

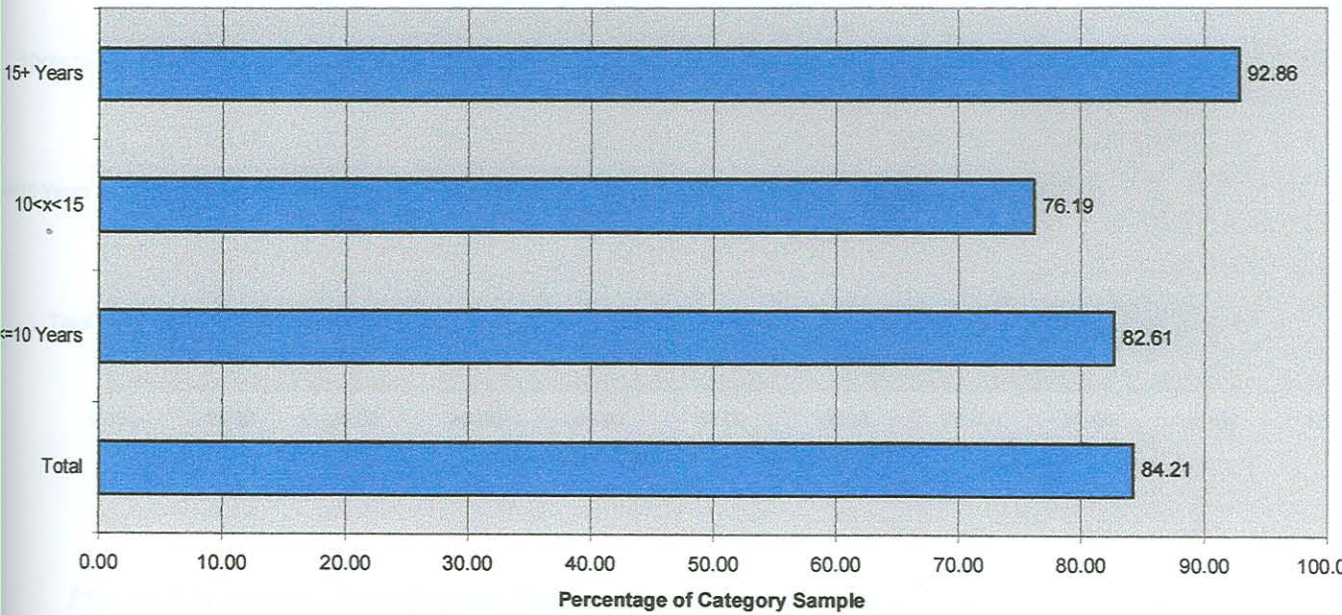
*Table 4.15 Priority rating of the 4 domains in prompted questions, cross-tabulated by different experience level subgroups*

Experience Level Subgroups	Average Priority Rating for PP	Average Priority Rating for FR	Average Priority Rating for IR	Average Priority Rating for CC
X>15	8.3	7.8	7.3	8.7
10≤Y≤15	7.0	7.4	6.6	8.8
Z<10	7.9	7.2	6.8	8.5
Number of Years Marketing Experience	Average Priority Rating for PP	Average Priority Rating for FR	Average Priority Rating for IR	Average Priority Rating for CC
X≥3	8.4	7.3	6.8	8.5
X<3	7.4	7.5	6.9	8.7

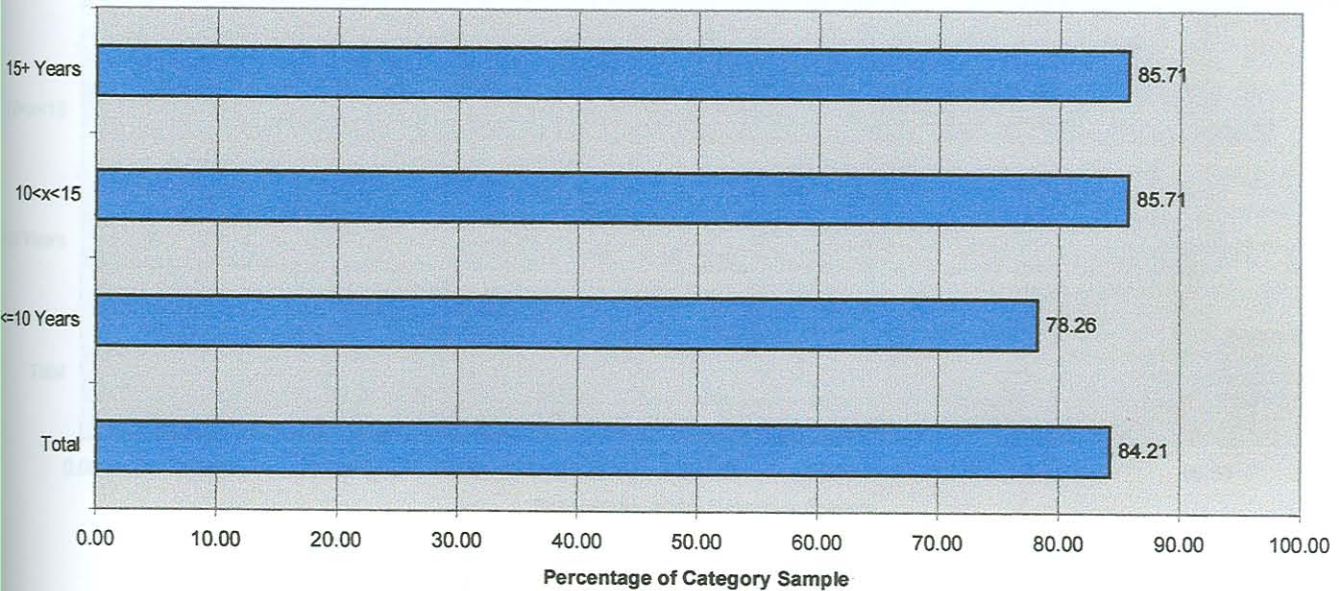


Upon investigation of the frequency of mention by a percentage of the category sample, the following pictures emerge. (Study Figure 4.11- Figure 4.14 below.)

**Figure 4.11 Priority Rating of the Domain Preferred Positioning, Cross-tabulated by Experience Level Subgroups**

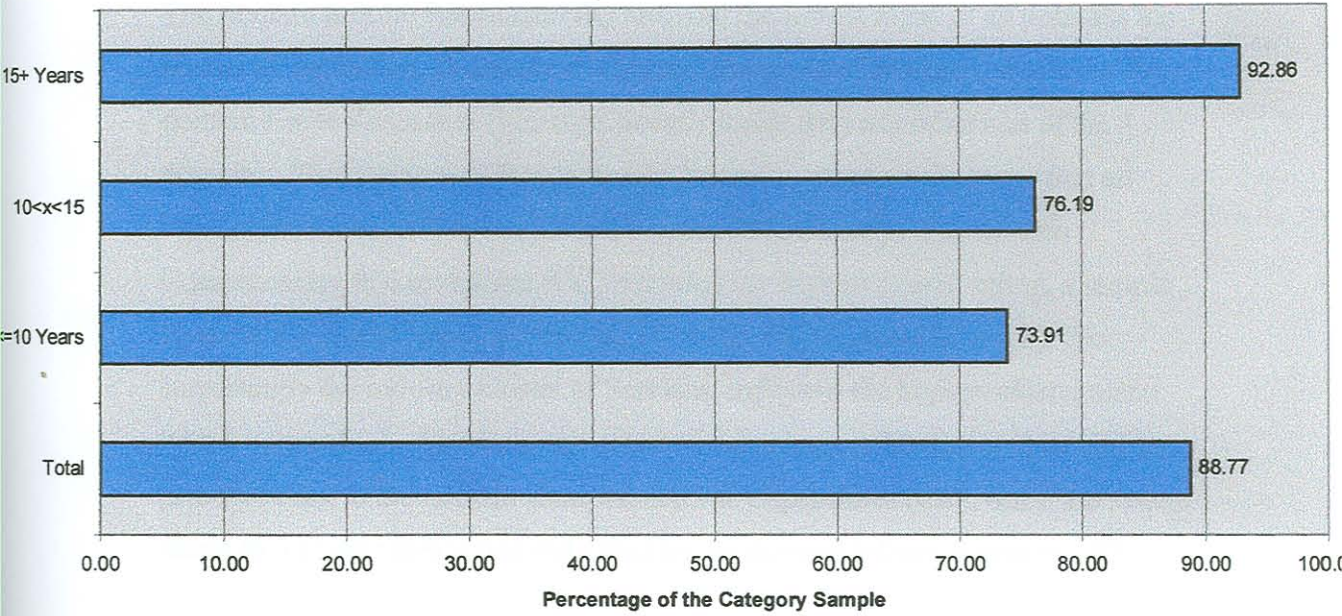


**Figure 4.12 Priority Rating of the Domain Finite Resources, Cross-tabulated by Experience Level Subgroups**

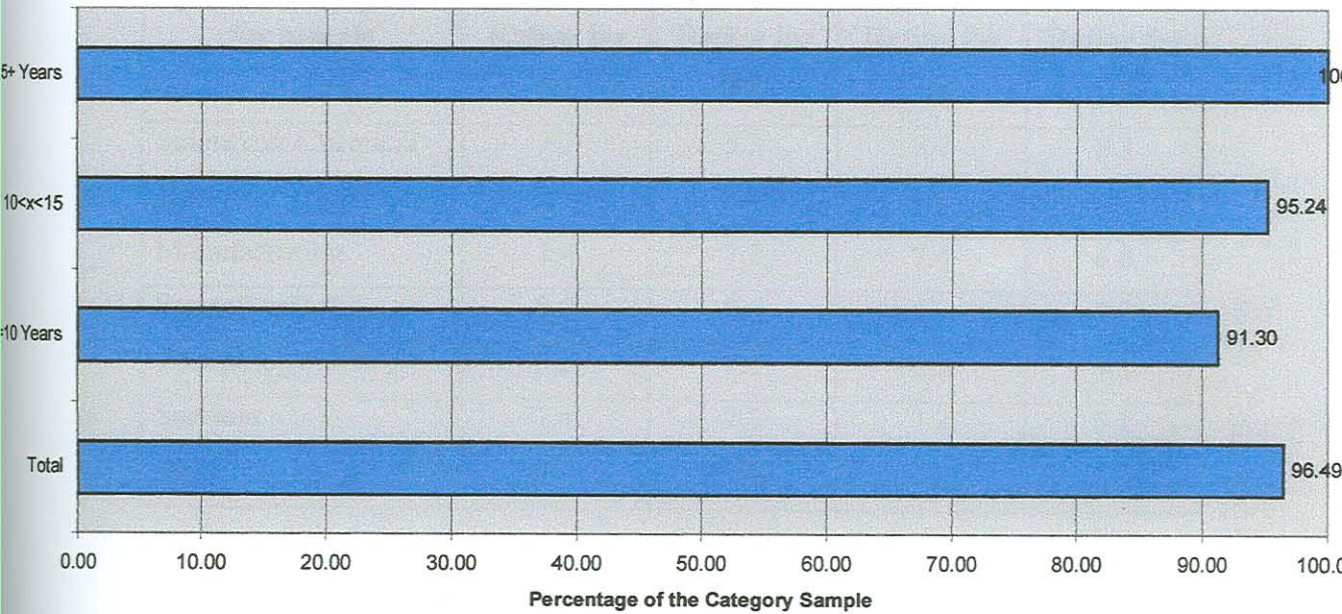




*Figure 4.13 Priority Rating of the Domain Infinite Resources, Cross-tabulated by Experience Level Subgroups*



*Figure 4.14 Priority Rating of the Domain Capabilities & Competencies, Cross-tabulated by Experience Level Subgroups*



### 3.5.3 Priority Rating By Respondents from different Industry Subgroups

The domain Infinite Resources (IR) received the lowest mean of all domains for almost all industries, except for the cluster Science & Chemistry, who rated the domain Finite Resources (FR) significantly lower than any other one of the 4 domains. This rating for FR was almost 2 priority rating points lower than all other ratings recorded by the cluster Science & Chemistry. The domain Competencies & Capabilities (CC) recorded the highest overall rating, a sample mean of 8.4 (other domains recorded PP = 7.5; FR = 7.4 and IR = 6.8). Not surprisingly the industry cluster of Services, indicated the highest cluster mean with a value of 9.1. Similarly, the cluster Technology or IT allocated its highest priority rating to the domain Competencies & Capabilities (CC), while the lowest rating (6.3 cluster mean) was indicated for the domain Infinite Resources (IR).

*Table 4.16 Priority rating of the 4 domains in prompted questions, cross tabulated by respondents from different industry subgroups*

<b>Industry subgroup of the sample</b>	<b>Average Priority Rating for PP</b>	<b>Average Priority Rating for FR</b>	<b>Average Priority Rating for IR</b>	<b>Average Priority Rating for CC</b>
Science & Chemical	7.7	5.3	7.7	8.3
Energy	6.1	8.6	6.0	8
Manufacturing	7.4	7.2	7.4	6.8
Petrochemical	8.0	8.6	6.2	8.8
Technology & IT	8.2	7.2	6.3	9.1
Services	7.4	7.3	7.2	9.1
Other	7.5	7.4	6.8	8.4



### 3.6 COMPARISON OF UNPROMPTED CONCEPTS AND PROMPTED CONCEPTS

Up to this point of the discussion, each question was dealt with, to a certain degree of isolation. Sections were grouped together only when the same concepts were first selected, and then rated. In the following paragraphs, the comparison of sections A and E is done, but only with some manipulation.

#### 3.6.1 Conversion of responses to question A and question E

In Question A1 respondents are given the opportunity to produce unprompted sources of SCA and then asked to rank them in Section A2. The sources mentioned in this unprompted manner were then divided into the four domains as defined in question E of the questionnaire. In section E of the questionnaire, respondents were asked to rate the prompted domains of SCA. Here the rating scale, as well as the domains, were provided. This rating scale is converted to a ranking scale and is set out in the table 4.17 below.

*Table 4.17 Ranking of the four domains*

<b>Domains</b>	<b>Average Ranking as reflected in Question A2</b>	<b>Average Rating as per Question E</b>	<b>Inferred Ranking of Question E</b>
Preferred Positioning	2	7.8	2
Finite Resources	1	7.5	3
Infinite Resources	4	6.9	4
Capabilities & Competencies	3	8.7	1

It is clear that the rankings of the domains are different when they are derived from the unprompted sources (divided into domains), and when the domains are provided and respondents have to rank them. It is very important to note though, that in both cases all four domains were very highly rated as contributors to the SCA of a firm. (Refer to section 3.2 and 3.5 of Chapter 4.) By focusing on the



original rating for question E, it is clear to see that all domains receive a high rating with less than two points difference between the highest ranked domain (CC) and the lowest ranked domain (IR). Although the researcher is very interested in the cause of this shift, the design of the questionnaire did not anticipate this shift, and neither the questions nor the responses lend themselves to further analysis in line with this tendency. In order to respond to or interpret this trend, further research is required.

## CHAPTER 5

### 4. PART 3: CONCLUSION

Fifty-seven respondents were drawn from different industry sectors, different levels of business and marketing experience and some from non-marketing functions. To explore the differences in perception of sources of SCAs and the domains they would be categorized in, separate analysis were performed for the major subgroups as defined earlier in this chapter. Overall the differences were modest and in most cases more severe differences could be explained or should be ignored by the nature of the composition of the subgroups or by the limited number of respondents in the group. Averaging the numbers across subgroups and across industries offered the opportunity to increase the potential accuracy of the results or responses, without losing important information (Starbuck and Mezias 1996). Different graphical treatments illustrated trends clearly and added new light to some controversial trends, areas of uncertainty or questionable results.