

CHAPTER 7

RESEARCH RESULTS AND INTERPRETATION

7.1 INTRODUCTION

This chapter will be an exposition of the results on a question-by-question basis. The result of each individual question will start with a repetition of the questions as formulated in the final questionnaire (Appendix 2). Results will be presented in a table format and the variable numbers (V) as used in the questionnaire will be shown in all relevant tables.

The reporting will start with an illustration of the results achieved by the total sample realised, based on a descriptive statistical analysis of frequencies, mean scores, top-box scores, low-box scores and standard deviations. Hereafter a cross tabulation procedure will be executed to reveal possible differences or similarities by organisational type (small manufacturing organisations and small dealer organisations). T-tests will be performed to determine whether differences per organisational type are significant or not.

The research results will be supplemented by a discussion of other relevant and important cross tabulations, the representativeness of the sample and the validity of the questionnaire. The reporting will be concluded with a summary of the major findings and possible support for the various research propositions.

7.2 REALISATION RATE

A sample frame as described in chapter 6 was obtained from the Bureau of Market Research (BMR) Register at the University of South Africa. The sample frame used in this study to fill the different strata is shown in Table 7.1 and it depicts the composition of the different strata per organisational type in Gauteng – manufacturer and dealer organisations employing between 11 – 50 employees.

Table 7.1: A description of the sample frame

Area	Organisational type		TOTAL
	Manufacturers	Dealers	
Pretoria	361 (stratum 1)	453 (stratum 2)	814
Johannesburg	1981 (stratum 3)	1609 (stratum 4)	3590
TOTAL	2342	2062	4404

The fieldwork was conducted in Pretoria and Johannesburg by three fieldworkers from 20 March 2001 to 4 May 2001 and the realisation rate from the sample frame is depicted in Table 7.2

Table 7.2: The realisation rate

Description	Pretoria		Johannesburg		Total
	Manufacturers	Dealers	Manufacturers	Dealers	
<i>Number of organisations on the BMR list</i>	361	453	1981	1609	4404
Wrong telephone numbers on the BMR list	96	94	374	317	881
<i>Number of organisations after the deduction of all the wrong telephone numbers</i>	265	359	1607	1292	3523
Three calls made but no answer	45	50	180	109	384
<i>Number of organisations after the deduction of all the wrong telephone numbers and three calls made but no answer</i>	220	309	1427	1183	3139
Don't know or don't apply the PLC	132	185	856	709	1882
<i>Number of organisations after the deduction of all the wrong telephone numbers, three calls made but no answer and don't know or don't apply the PLC = Total number of small manufacturing and dealers in Gauteng organisations knowing of and applying the PLC</i>	88	124	571	474	1257
Actual calls made	40	65	335	403	843
Interviews granted	2	9	19	63	93
Realisation rate of the total organisations knowing of and applying the PLC concept	(2/88) 2.27%	(9/124) 7.25%	(19/571) 3.33%	(63/474) 13.29%	(93/1257) 7.39%

The reasons for the low overall realisation rate of **7.39%** depicted in Table 7.2 are:

- A large number (**20%**) wrong numbers appeared on the BMR list.

- Three calls made to **10.89%** of the numbers listed where no answer was received.
- A large number (**59.95%**) of the organisations listed on the BMR don't know of and don't apply the PLC concept. This percentage is a confirmation of the exercise completed during the determination of the sample size in chapter 6, whereby 40% of the 80 organisations selected randomly from the BMR list indicated that they know of and apply the PLC concept.

It is evident from Table 7.2 that only **11.03%** (93/843) of the organisations called, granted an interview. Reasons for this phenomenon are:

- The **confidentiality** of PLC information to the organisation.
- Marketing decision-makers **not interested** in an interview.
- Marketing decision-makers **not having the time available** for an interview.

It is important to note that of the 93 responses received only one questionnaire was eliminated for statistical analysis due to its incompleteness. Data on the remaining 92 questionnaires were captured and 86 (**93.47%**) of the 92 questionnaires were fully completed.

The main finding from the realisation rate is that 40.05% (1257/3139) of marketing decision-makers within small manufacturing organisations and small dealer organisations of the sample in Gauteng with between 11 – 50 employees indicated that their organisations know of and apply the product life cycle concept as a decision-making vehicle.

7.3 THE REPRESENTATIVENESS, VALIDITY AND RELIABILITY OF RESULTS

Before a question-by-question exposition of the results will be reported it is important to describe the representativeness, validity and the reliability of the

results. This is necessary to provide the correct context in which the results can be interpreted and conclusions can be drawn.

7.3.1 Representativeness of the results

Although the sampling elements were randomly selected from each stratum as illustrated in Figure 6.2 and depicted in paragraph 6.5.4, the results achieved during this study are **only** representative of the industries and area in which it was conducted as the researcher strictly followed the intended stratified sampling procedure.

The different strata in the sample was not filled due to the following phenomena:

- A strict criterion was applied and resulted in 60% of the sample frame not qualifying to participate in the study.
- A high percentage (20%) of the telephone numbers appearing on the list / sample frame as obtained from the Bureau of Market Research (BMR) appeared to be wrong.
- Poor co-operation was received from the eligible sample elements - only 93 of the 1257 eligible sample elements were willing to grant an interview.

7.3.2 Validity of the results

Validity and reliability tests were applied to determine whether or not the researcher truly measured what was intended to be measured and whether or not the researcher can replicate these responses at a later stage.

As the research design for this study is of an exploratory nature the questionnaire was designed from the literature and tested in a specific industry with a very low sample realisation as depicted in Table 7.2. Based on this the validity and reliability cannot be proven statistically, but the validity can be evaluated based on the face validity of the questionnaire.

As portrayed in chapter six, **validity** is the extent to which differences in observed scale scores reflect true differences among objects on the

characteristic being measured, rather than systematic or random errors (Malhotra, 1996: 240).

The content validity approach was used by the researcher to measure the validity of the results obtained during this study by determining whether questions in the measurement instruments used measured the characteristic it was supposed to measure. Experts from organisations such as South African Breweries (SAB) and Nedcor validated the questions as described in the pre-testing procedure (paragraph 6.8.5).

The content of the measures in the questionnaire originated from previous studies reported in the literature review and was regarded to be sufficient to address the objectives of this study formulated in chapter one.

7.4 RESULTS ON A QUESTION-BY-QUESTION BASIS

The researcher will report the results on scaled questions by using the mean value, top-box score, low-box score and standard deviation. If necessary the standard deviation will be used to indicate homogeneity and/or heterogeneity on the mean scores per organisational type (small manufacturing organisations and small dealer organisations).

7.4.1 Section A

The purpose of Section A was to obtain classification information on manufacturers and dealers in Gauteng included in the empirical part of this study. The following results provide the necessary classification information that will be vital for cross-tabulation purposes later on in the analysis.

(a) Questions 1 and 2

Q 1: Location of the organisation	Pretoria	Johannesburg
Q2: Classification	Manufacturer	Dealer

The result of location and classification is illustrated in Table 7.3.

Table 7.3: Classification of organisations realised per region

Area	Organisational type				Total	
	Manufacturers		Dealers			
	Number	Percentage	Number	Percentage	Number	Percentage
Pretoria	2	9.52%	8	11.26%	10	10.87%
Johannesburg	19	90.48%	63	88.74%	82	89.13%
TOTAL	21	100%	71	100%	92	100%

The majority (**89.13%**) of responses as illustrated in Table 7.3 was realised in Johannesburg.

Because of the relatively low response rate in the Pretoria region the regions can and will not be compared - only the organisational types (small manufacturing organisations and small dealer organisations).

(b) Question 3

What is the nature of your core business?

The classification of organisations based on their core business activities is classified in Table 7.4.

The result of this question clearly indicates that the majority of organisations realised by the stratified sampling procedure is information technology (IT) manufacturers and dealers with a total of **17.39%** followed by vehicle manufacturers and dealers (**9.78%**), clothing and footwear manufacturers and dealers (**8.70%**), FMCG dealers (**7.61%**) and electronic manufacturers and dealers (**6.52%**) as listed in Table 7.4.

The majority of dealer organisations are from information technology (IT) with a frequency of **14.13%** followed by electronics and vehicles (**6.52%**) and multimedia, furniture and FMCG's (**5.43%**).

Table 7.4: Classification of organisations by core business activities

Description of the core business	Frequency					
	Manufacturers		Dealers		Total	
	Number	Percentage	Number	Percentage	Number	Percentage
Stationery	3	3.26%	2	2.17%	5	5.43%
Pharmaceuticals	3	3.26%	1	1.09%	4	4.35%
Electronics	0	0.00%	6	6.52%	6	6.52%
Garden equipment	0	0.00%	1	1.09%	1	1.09%
Multi-media	0	0.00%	5	5.43%	5	5.43%
Clothing and footwear	1	1.09%	7	7.61%	8	8.70%
IT (Computers, Software, hardware, wholesale & retail)	3	3.26%	13	14.13%	16	17.39%
Security	2	2.17%	2	2.17%	4	4.34%
Building	2	2.17%	1	1.09%	3	3.26%
Vehicles	3	3.26%	6	6.52%	9	9.78%
Paint	0	0.00%	2	2.17%	2	2.17%
Hardware	0	0.00%	3	3.26%	3	3.26%
Furniture	0	0.00%	5	5.43%	5	5.43%
Meat	0	0.00%	1	1.09%	1	1.09%
Import and export	0	0.00%	1	1.09%	1	1.09%
Cell phones and accessories	0	0.00%	3	1.09%	3	3.26%
Sports equipment	1	1.09%	1	1.09%	2	2.18%
Jewellery	1	1.09%	0	0.00%	1	1.09%
FMCG's	2	2.17%	5	5.43%	7	7.61%
Books	0	0.00%	3	3.26%	3	3.26%
Interior decorating / Flower/ Florist	0	0.00%	1	1.09%	1	1.09%
Vehicle fitment products	0	0.00%	1	1.09%	1	1.09%
Office equipment	0	0.00%	1	1.09%	1	1.09%
TOTAL	21	22.83%	71	77.17%	92	100%

Manufacturers are not as widely represented across the different categories as dealers and are mainly from stationery, pharmaceuticals, IT, and vehicle manufacturers with a frequency of **3.26%** in each of these categories.

(c) Question 4

Name all the **departments** or **functions** in your organisation?

The total frequency distribution is depicted in Table 7.5 and indicates that the majority of organisations in Gauteng have an accounts department or function (V6) **92.39%**, sales department or function (V17) **91.30%**, marketing department or function (V14) **68.47%**, customer service department or

function (V9) **60.87%** and public relations / PR department or function (V16) **20.66%**.

Table 7.5: Departments and functions within manufacturer and dealer organisations

Departments or functions		Frequency					
		Manufacturers		Dealers		Total of sample (N = 92)	
		Number	Percentage	Number	Percentage	Number	Percentage
V6.	Accounts	20	21.74%	65	70.65%	85	92.39%
V7.	Buying / Purchasing	15	16.30%	65	70.65%	80	86.95%
V8.	Communication	1	1.09%	11	11.96%	12	13.05%
V9.	Customer service	10	10.87%	46	50.00%	56	60.87%
V10.	Finance	11	11.96%	37	40.22%	48	52.18%
V11.	Human resources	6	6.52%	19	20.65%	25	27.17%
V12.	Information Technology (IT)	8	8.70%	18	19.57%	26	28.26%
V13.	Legal	6	6.65%	18	19.57%	24	26.09%
V14.	Marketing	18	19.57%	45	48.91%	63	68.47%
V15.	Production	13	14.13%	4	4.35%	17	18.48%
V16.	Public relations (PR)	1	1.09%	18	19.57%	19	20.66%
V17.	Sales	19	20.65%	65	70.65%	84	91.30%
V18.	Technical support	6	6.52%	19	27.17%	25	27.17%
V19.	Research and development (R&D)	6	6.52%	5	5.43%	11	11.95%
V20.	Other	2	2.17%	5	5.43%	7	7.60%

The frequency distribution for the marketing department or function (V14) (**68.47%**) as depicted in Table 7.5 is an important trend to be used for cross tabulation purposes in order to provide answers to certain aspects (for example; the identification of marketing characteristics) evaluated during this study. It is furthermore an indication of the level of marketing expertise and should be taken into account when the application of marketing related activities are analysed.

According to Table 7.5 only 17 (**18.48%**) of the organisations indicated that they have a production department or function (V15). Twenty-one of the sample were manufacturers according to Table 7.4 but only 62% indicated that they had a production department (V15) in Table 7.5. One would have

assumed that all of the manufacturing organisations would have indicated having a production department or function. The functions reported under “**Other**” (V20) in Table 7.5 include administration, workshop, medical department and receiving, with a frequency of **7.60%**.

The departmental or functional frequency will provide possible distinguishable answers when manufacturers and dealers are compared as to the importance of specific marketing mix aspects and the identification of marketing characteristics, marketing objectives and marketing strategies in the different PLC phases in the latter part of the analysis.

The main finding is that 68.47% of manufacturer and dealer organisations have a marketing department or function although 91.30% indicated that they have a sales function.

(d) Question 5

How many employees are working in your organisation?

The majority of organisations in Gauteng employ between 11 and 20 employees indicated by the cumulative percentage of **52.17%** depicted in Table 7.6. This cumulative percentage is an indication that more than half of the organisations in the sample is very small with reference to organisational size, as quantified in terms of the number of employees.

Table 7.6: Organisational size according to the number of employees

Number of employees	Frequency	Percentage	Cumulative percentage
11 – 15	23	25.00%	25.00%
16 – 20	25	27.17%	52.17%
21 – 30	18	19.57%	71.74%
31 – 40	14	15.22%	86.96%
41 – 50	12	13.04%	100%
TOTAL	N = 92	100	-

Table 7.6 indicates that **27.17%** of all manufacturing and dealer organisations in Gauteng employ between 16 and 20 employees. Furthermore, 28.26%

(**15.22% + 13.04%**) of these organisations can be regarded as “large” small organisations as they employ between 31 and 50 people. Table 7.7 will however reveal possible differences between manufacturers and dealers based on the number of employees.

Table 7.7: Organisational size according to the number of employees by organisational type

Number of employees	Frequency					
	Manufacturers		Dealers		Total	
	Number	Percentage	Number	Percentage	Number	Percentage
11 – 15	3	3.26%	20	21.74%	23	25.00%
16 – 20	1	1.09%	24	26.09%	27	27.17%
21 – 30	8	8.70%	10	10.87%	19	19.57%
31 – 40	5	5.43%	9	9.78%	15	15.22%
41 – 50	4	4.35%	8	8.70%	13	13.04%
TOTAL	21	22.83%	71	77.17%	92	100%

Table 7.7 illustrates a more even spread of employment size among manufacturers within the different categories. On the contrary dealers are mainly small as indicated by the frequency percentages of **21.74%** and **26.09%** employing between 11 – 15 and 16 – 20 respectively.

The main finding is that the majority of manufacturer and dealer organisations in the sample can be regarded as small, based on the fact that they have between 11 – 20 employees.

7.4.2 Section B

The purpose of Section B was to determine the product life cycle’s importance and to test the ability of marketing decision-makers of manufacturers and dealers in Gauteng on PLC phase identification and application. The following results provide the necessary information on PLC importance and application ability.

(a) Question 6

How **important** is the application of the product life cycle concept in the execution of the following aspects in your organisation? (**“1” would indicate that the aspect is not important at all and “5” would indicate that the aspect is extremely important**).

The aspects, which are regarded as important as associated with the application of the product life cycle concept, are illustrated in Figure 7.8.

Table 7.8: Aspects of importance in the application of the PLC concept

Aspect	*N	Mean	Top-box score	Low-box score	Standard deviation
V22. Buying	90	4.70	75.56%	0.00%	0.56
V23. Costing	90	4.32	54.44%	0.00%	0.87
V24. Forecasting	89	3.61	26.97%	1.12%	1.05
V25. Manufacturing	89	2.68	26.97%	25.84%	1.54
V26. Product development	87	3.03	27.59%	14.94%	1.38
V27. Pricing	90	4.56	70.00%	1.11%	0.80
V28. Distribution	90	4.23	48.89%	0.00%	0.87
V29. Advertising	90	4.17	47.78%	1.11%	0.94
V30. Sales promotion	90	4.16	48.89%	3.33%	1.04
V31. Monitoring market share	90	3.26	15.56%	5.56%	1.07
V32. Competitive evaluation	90	3.91	33.33%	1.11%	0.95
V33. Managing brands	90	3.60	32.22%	8.89%	1.27
V34. Allocating resources	90	3.83	31.11%	1.11%	1.03

* N = the number of respondents who answered the question

Buying (V22) is indicated by the total realised sample to be the most important aspect when applying the product life cycle concept as shown by a mean score of **4.70**, a top-box score of **75.56%** (respondents who selected extremely important) and a standard deviation of **0.56** depicted in Table 7.8. Buying (V22) as the most important application area of the product life cycle concept is followed by pricing (V27) and costing (V23) with mean scores of **4.56** and **4.32** and top-box scores of **70.00%** and **54.44%** respectively. The

low-box scores depicted in Table 7.8 indicate that results vary between **0.00%** and **25.84%**.

The standard deviation of buying (V22) is the lowest of all the aspects. One can conclude that the sample was the most homogeneous on the importance of buying as an aspect in the application of the PLC.

Manufacturing (V25) had the highest standard deviation (**1.54**) as depicted in Table 7.8 and the sample responses are therefore the most heterogeneous on the importance of manufacturing in the application of the PLC. This deduction should be treated with caution as the majority of the sample consisted of small dealer organisations.

Table 7.9 illustrates whether there are differences in the importance of certain aspects in the application of the PLC concept between manufacturers and dealers.

Table 7.9: Aspects of importance in the application of the PLC concept

Aspect	Manufacturers			Dealers		
	*N	Mean	Standard deviation	*N	Mean	Standard deviation
V22. Buying	21	4.47	0.67	69	4.76	0.51
V23. Costing	21	4.38	0.80	69	4.30	0.89
V24. Forecasting	20	3.70	0.80	69	3.68	1.11
V25. Manufacturing	21	4.61	0.92	69	2.54	1.36
V26. Product development	21	4.19	1.20	69	3.07	1.33
V27. Pricing	21	4.28	0.95	69	4.65	0.74
V28. Distribution	21	4.28	0.71	69	4.21	0.92
V29. Advertising	21	3.47	1.07	69	4.39	0.79
V30. Sales promotion	21	3.61	1.02	69	4.33	0.99
V31. Monitoring market share	21	3.23	1.17	69	3.27	1.05
V32. Competitive evaluation	21	3.57	1.12	69	4.01	0.88
V33. Managing brands	21	3.09	1.13	69	3.75	1.28
V34. Allocating resources	21	4.23	0.53	69	3.71	1.11

* N = the number of respondents who answered the question

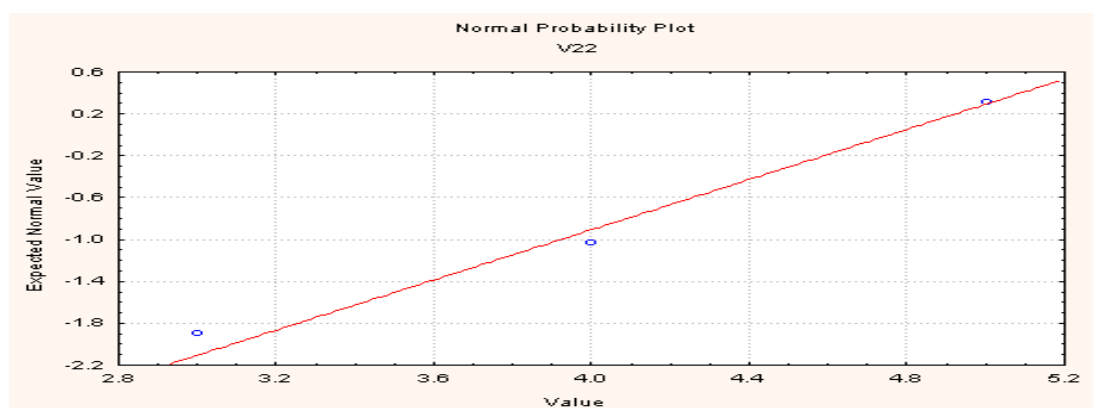
The application of the product life cycle concept is the most important to manufacturers for manufacturing (V25) as indicated by a mean score of **4.61**,

followed by buying (V22) and costing (V23) with mean scores of **4.47** and **4.38** respectively as depicted in Table 7.9. Dealers indicated that the product life cycle concept is most important to them for buying (V22) purposes as indicated by a mean score of **4.76**, followed by pricing (V27) and advertising (V29) with mean scores of **4.65** and **4.39** respectively. Dealers in comparison with manufacturers indicated a higher importance of applying the product life cycle concept for marketing mix related purposes.

The product life cycle concept is of lesser importance to manufacturers when applying the product life cycle concept for managing brands (V33) indicated by a mean score of **3.09**, followed by monitoring market share (V31) and advertising (V29) with means scores of **3.32** and **3.47** respectively (Table 7.9). Dealers indicated in Table 7.9 that the product life cycle concept is of lesser importance to them when applying the product life cycle for manufacturing (V25) indicated by a low mean score of **2.54**, followed by product development (V26) and monitoring market share (V31) of **3.07** and **3.27** respectively.

The Shapiro-Wilks' W test was computed to determine whether the variables in this question were normally distributed or not. Figure 7.1 illustrates the Shapiro-Wilks' W test result for the test of normality computed on buying (V22) in question 6.

Figure 7.1: Normal probability plot



Kolmogorov-Smirnov one-sample D statistic = .19780, $p < .01$; Lilliefors $p < .01$ and Shapiro-Wilks' W test = 0.84095, $p < .0000$

The normal probability plot indicates that buying (V22) does not have a normal distribution as the point on the normal probability plot was scattered around the diagonal line. Three statistical tests for normality including the Lilliefors test and Kolmogorov-Smirnov one-sample D statistic were conducted. The results of all three these tests indicate that V22 is not normally distributed. This can for example be seen from a highly significant p-value of 0.0000 of the Shapiro-Wilks' W test. This test result is regarded as the preferred test of normality because of its good power properties as compared to alternative tests. Similar results were obtained for all the other variables tested. The procedure will therefore not be repeated when other non-parametric statistics are employed.

As the researcher didn't anticipate the use of non-parametric statistics in the discussion of the statistical treatment methodology in chapter 6, the different non-parametric tests used for analysis will be described on page 4 in Appendix 4.

Table 7.10 illustrates significance testing done by the employment of the Mann Whitney U test to determine whether the mean scores in Table 7.9 on the importance of aspects between small manufacturing organisations and small dealer organisations can be regarded as significant.

If the decision-rule that a p-value ≤ 0.05 is indicative of a significant difference, then the p-values depicted in Table 7.10 show significant differences on mean values between manufacturers and dealers on manufacturing (V25) **0.0000**, advertising (V29) **0.0003**, product development (V26) **0.0007**, sales promotion (V30) **0.0011**, pricing (V27) **0.017**, managing brands (V33) **0.0197** and buying (V22) **0.0272**. These differences can therefore be regarded as significant.

It is evident from Table 7.10 that dealers regard buying (V22) with a mean value of **4.76**, pricing (V27) with a mean value of **4.65** and advertising (V29) with a mean value of **4.39** as more important than manufacturers.

Table 7.10: Significance testing of means regarding aspects of importance

Aspect	Mean		p-value
	Manufacturers	Dealers	
V22. Buying	4.47	4.76	0.0272
V23. Costing	4.38	4.30	0.8039
V24. Forecasting	3.70	3.68	0.9187
V25. Manufacturing	4.61	2.54	0.0000
V26. Product development	4.19	3.07	0.0007
V27. Pricing	4.28	4.65	0.0170
V28. Distribution	4.28	4.21	0.9876
V29. Advertising	3.47	4.39	0.0003
V30. Sales promotion	3.61	4.33	0.0011
V31. Monitoring market share	3.23	3.27	0.8105
V32. Competitive evaluation	3.57	4.01	0.0912
V33. Managing brands	3.09	3.75	0.0197
V34. Allocating resources	4.23	3.71	0.0683

Manufacturers regarded manufacturing (V25) with a mean value of **4.61** and product development (V26) with a mean value of **4.19** as more important than dealers.

The main finding is that there are significant differences between small manufacturing organisations and small dealer organisations when applying the product life cycle concept. Small dealers regarded buying, pricing and advertising as more important than small manufacturers.

Another main finding is that small manufacturers regarded manufacturing and product development as more important than small dealers do.

The p-values in Table 7.10 on distribution (V28), forecasting (V24), costing (V23), monitoring market share (V31), competitive evaluation (V32) and allocating resources (V34) are all larger than 0.05 and the differences on these mean values cannot be regarded as significant.

The main finding from this is that there are no significant differences between small manufacturing organisations and small dealer

organisations when applying the product life cycle concept in the execution of distribution, forecasting, costing, monitoring market share, competitive evaluation and allocation of resources, although these aspects are important.

The relatively low mean scores of manufacturing (V25) and product development (V26) of dealers can be expected as they are buyers and sellers of goods and services and the low mean score on advertising (V29) by manufacturers can be indicative of manufacturers supporting dealers in related advertising activities.

The main finding is that small manufacturing organisations in Gauteng regard *manufacturing*, and small dealer organisations regard *price*, as the most important aspects when applying the product life cycle concept.

(b) Question 7

Name three aspects that provide a competitive advantage for your organisation?

Competitive advantage is an organisation's ability to perform in one or more ways that competitors will not or cannot match (Kotler, 2000: 316). It was revealed in the literature study in chapter two that the PLC concept is an important aspect to create a competitive advantage and is realised through the organisation's marketing strategy, the implementation thereof and the context in which competition unfolds.

This question resulted into **50 reasons** for achieving a competitive advantage and these reasons are shown in Table 7.11. The reasons include marketing strategy elements for competitive advantage as discussed in chapter two. Marketing mix instruments are dominant aspects together with core competencies, resources, management and relationships with major stakeholders. Table 7.11 depicts the various marketing mix instruments that

are used to create a competitive advantage for the small manufacturing and small dealer organisations.

Table 7.11: Factors providing a competitive advantage

Aspect	Frequency					
	Manufacturers		Dealers		Total	
	Number	Percentage	Number	Percentage	Number	Percentage
1. Price	8	2.94%	42	15.44%	50	18.38%
2. Delivery	1	0.37%	0	0.00%	1	0.37%
3. Supply (reliability / relationship)	4	1.47%	15	5.51%	19	6.99%
4. Manufacturing process	2	0.74%	1	0.37%	3	1.10%
5. Distribution	6	2.21%	11	4.04%	17	6.25%
6. Brand	2	0.74%	12	4.41%	14	5.15%
7. Buyer relationships	2	0.74%	6	2.21%	8	2.94%
8. Quality	7	2.57%	10	3.68%	17	6.25%
9. Franchise name	0	0.00%	3	1.10%	3	1.10%
10. Service quality	4	1.47%	10	3.68%	14	5.15%
11. Peripheral service	0	0.00%	1	0.37%	1	0.37%
12. Sole manufacturer	1	0.37%	0	0.00%	1	0.37%
13. Government support	1	0.37%	1	0.37%	2	0.74%
14. Promotion	0	0.00%	1	0.37%	1	0.37%
15. Buy large quantities	0	0.00%	1	0.37%	1	0.37%
16. Advertising	0	0.00%	9	3.31%	9	3.31%
17. Few competitors	3	1.10%	2	0.74%	5	1.84%
18. Management	2	0.74%	2	0.74%	4	1.47%
19. Large target market	1	0.37%	0	0.00%	1	0.37%
20. Good industry relationships	2	0.74%	2	0.74%	4	1.47%
21. Customer relationships	3	1.10%	3	1.10%	6	2.21%
22. Specialists	2	0.74%	3	1.10%	5	1.84%
23. Size (customer volume)	0	0.00%	2	0.74%	2	0.74%
24. Reputation	0	0.00%	3	1.10%	3	1.10%
25. Niche market	0	0.00%	2	0.74%	2	0.74%
26. Location	0	0.00%	18	6.62%	18	6.62%
27. Product phasing out	0	0.00%	1	0.37%	1	0.37%
28. Customer base	1	0.37%	2	0.74%	3	1.10%
29. Well-trained staff	2	0.74%	1	0.37%	3	1.10%
30. Forecasting	0	0.00%	4	1.47%	4	1.47%
31. Resource allocation	1	0.37%	0	0.00%	1	0.37%
32. Competitive evaluation	1	0.37%	8	2.94%	9	3.31%
33. Sales promotion	1	0.37%	10	3.31%	10	3.68%
34. Product availability	0	0.00%	4	1.47%	4	1.47%
35. Low expenses	0	0.00%	1	0.37%	1	0.37%
36. Support	0	0.00%	1	0.37%	1	0.37%
37. Product development	0	0.00%	0	0.37%	1	0.37%
38. Quality control	1	0.37%	0	0.00%	1	0.37%
39. Warranties	0	0.00%	1	0.37%	1	0.37%
40. Manufacturing	0	0.00%	1	0.37%	1	0.37%
41. In-store promotion	0	0.00%	1	0.37%	1	0.37%
42. Good value for money	1	0.37%	0	0.00%	1	0.37%
43. Wide product range	0	0.00%	3	1.10%	3	1.10%
44. Infrastructure	0	0.00%	1	0.37%	1	0.37%
45. Loyal customers	0	0.00%	2	0.74%	2	0.74%
46. Good sales team	0	0.00%	1	0.37%	1	0.37%
47. Strong marketing ability	1	0.37%	0	0.00%	1	0.37%
48. International backing or support	0	0.00%	1	0.37%	1	0.37%
49. After sales support	1	0.37%	0	0.00%	1	0.37%
50. Performance culture	0	0.00%	1	0.37%	1	0.37%
50. Costing	1	0.37%	6	2.21%	7	2.57%
TOTAL*	61	22.43%	211	77.57%	272	100%

* The total reflects more than the total sample because of multiple mentions

The following list of marketing mix related aspects as depicted in Table 7.12 together with the appropriate frequencies are derived from Table 7.11:

Table 7.12: Marketing mix instruments and marketing related aspects responsible for providing a competitive advantage

Marketing mix instrument	Marketing related aspects	Frequency
Product	Quality (no 8) (6.25%), service quality (no 10) (5.15%), brand (no 6) (5.15%), product availability (no 34) (1.47%), wide product range (no 42) (1.10%), warranties (no 39) (0.37%) and product development (no 37) (0.37%)	19.86%
Price	Price (no 1) (18.38%) and good value for money (no 42) (0.37%)	18.75%
Place	Location (no 26) (6.62%) and distribution (no 5) (6.25%)	12.87%
Promotion	Promotion (no 14) (3.68%), advertising (no 16) (3.31%) and in-store promotions (41) (0.37%)	7.36%
People	Well-trained staff (no 29) (1.10%) and a good sales team (45) (0.37%)	1.47%
Processes	Manufacturing (no 40) (1.10%), quality control (no 38) (0.37%) and after sales support (48) (0.37%)	1.84%
Physical evidence	Reputation (no 24) (1.10%)	1.10%

It is evident from Table 7.12 that marketing decision-makers of small manufactures and small dealers in Gauteng can identify aspects providing a competitive advantage to their respective organisations. These marketing related aspects can be related to all seven marketing mix instruments as illustrated in Table 7.12. Price (no 1) **18.38%** is the most popular marketing related aspect responsible for providing a competitive advantage as depicted in Table 7.12.

The main finding is that *price* (18.38%) is the major aspect responsible for creating a competitive advantage as reported by the total sample.

Collectively product (**19.86%**) is the marketing mix instrument with the most associated marketing related aspects and physical evidence is the marketing mix instrument with the least associated marketing related aspects (**1.10%**).

The main finding is that *product* (19.86%) is the most important marketing mix instrument for creating a competitive advantage based on the collective summation of marketing related aspects as reported by the total sample.

Other reasons (excluding the marketing mix instruments) for providing a competitive advantage are listed in Table 7.13.

Table 7.13: Other marketing related aspects responsible for providing a competitive advantage

Marketing related aspects	Description of the marketing related aspects	Frequency
Relationships	Supplier relationships (no 3) (6.99%), buyer relationships (no 7) (2.94%) customer relationships (no 21) (2.21%) and industry relationships (no 20) (1.47%)	13.61%
Competition	Competitive evaluation (no 32) (3.31%)	3.31%
Costing	Costing (no 50) (2.57%)	2.57%
Forecasting	Forecasting (no 30) (1.47%)	1.47%

The main finding is that *relationships* (13.61%) are the most important *other marketing mix related aspect* creating a competitive advantage (more important than place, promotion, people, processes and physical evidence) as reported by the total sample.

The marketing related aspects depicted in Table 7.12 and Table 7.13 were revealed in the literature study in chapter three, but it is however surprising that the product life cycle concept as such is not mentioned as one of the aspects responsible for creating a competitive advantage. It is surmised that respondents (marketing decision-makers) know of and apply the PLC but focused on the result of using the PLC and not the PLC as a means in decision-making to create an advantage.

When marketing aspects responsible for providing a competitive advantage in Table 7.11 are compared between manufacturers and dealers, then the most important marketing aspects per group are reported in Table 7.14.

Table 7.14: Competitive advantage comparison by organisational type

Organisational type	Marketing aspects responsible for competitive advantage
Small manufacturers	Price (no 1) 2.94% , quality (no 8) 2.57%, distribution (no 5) 2.21%, supply (no 3) 1.47%, service quality (no 10) 1.47%, a few competitors (no 17) 1.10%, customer relationships (no 21) 1.10%, brand (no 6) 0.74%, buyer relationships (no 7) 0.74%, specialists (no 22) 0.74% and well-trained staff (no 29) 0.74%.
Small dealers	Price (no 1) 15.44% , location (no 26) 6.62%, supply (no 3) 5.51%, brand (no 6) 4.41%, distribution (no 5) 4.04%, quality (no 8) 3.68%, service quality (no 10) 3.68%, advertising (no 16) 3.31%, sales promotion (no 33) 3.31%, competitive evaluations (no 32) 2.94%, buyer relationships (no 7) 2.21% and costing (no 50) 2.21%.

As depicted in Table 7.14 both manufacturers (2.94%) and dealers (15.44%) regard price as the most important aspect for achieving a competitive advantage followed by the importance of quality, service quality and relationships.

The main finding is that price is the major aspect responsible for creating a competitive advantage cited independently by small manufacturing organisations and small dealer organisations.

(c) Question 8

Indicate the **nature** of your **product assortment**.

Apart from the size of the organisation this study sought to reveal the range of the product assortment among organisations in Gauteng as illustrated by the percentage distribution in Table 7.15.

Table 7.15: The nature of product assortment

Nature of product assortment	Total Frequency	
	Number	Percentage
Single product	13	14.13%
One product range ¹⁾	24	26.09%
Multiple product ranges	55	59.78%
TOTAL	N = 92	100

¹⁾ A one product range can consist of more than 1 (single) product

Table 7.15 shows that a majority (**59.78%**) of all small organisations in Gauteng have **multiple product ranges**, followed by **26.09%** with **one product range** and **14.13%** with a **single product**.

Table 7.16 reveals possible differences in the nature of product assortment per organisational type.

Table 7.16: The nature of product assortment by organisational type

Organisational type	Frequency					
	Single product		One product range		Multiple product ranges	
	Number	Percentage of total (N = 92)	Number	Percentage of total	Number	Percentage of total
Manufacturers	2	2.17%	7	7.61%	12	13.04%
Dealers	11	11.96%	17	18.48%	43	46.74%
TOTAL	13	14.13%	24	26.09%	55	59.78%

The majority of manufacturers (12 out of a total of 21) and 43 out of a total of 71 dealers indicated that they have **multiple product ranges** as depicted in Table 7.16.

The main finding is that manufacturing and dealer organisations in Gauteng have mostly multiple product ranges, less one product ranges and the least single products.

(d) Question 9

If you have **multiple product ranges**, will you apply the PLC concept on each individual product within each product range?

It was assumed that organisations which indicated that they have either a single product or a one product range do apply the PLC concept for each product. They were therefore not required to answer question 9.

This question was compulsory for the **55** manufacturers and dealers in Gauteng who indicated in question 8 (Table 7.15) that they **have multiple product ranges**. Table 7.17 provides responses of organisations in Gauteng who answered yes or no.

Table 7.17: Application of the PLC on each individual product within each product range

Application of PLC	Frequency	Percentage
Yes	26	49.06%
No	27	50.94%
TOTAL	N = 53	100

Two organisations with multiple product ranges did not answer this question. Table 7.17 indicates that there is almost an equal distribution in the use and non-use of the PLC on each individual product within each product range.

The main finding is that less than half of the marketing decision-makers in manufacturing and dealer organisations that have indicated that they have multiple product ranges apply the product life cycle concept on each individual product within each product range.

(e) Question 10

In what phase of the product life cycle concept is your **primary product** positioned? ***The primary product can be regarded as the best selling product or product range in your organisation.***

It was important to the researcher to measure the marketing decision-makers' ability to identify the phase in which their primary products or product range (best seller) are positioned.

Table 7.18 indicates the positioning of the primary products/best sellers in each phase of the product life cycle.

Table 7.18: Positioning of primary products in each PLC phase for the total sample

PLC phase	Frequency	Percentage
Introductory phase	6	6.52%
Growth phase	47	51.09%
Maturity phase	37	40.22%
Decline phase	2	2.17%
TOTAL	N = 92	100%

Table 7.18 indicates that **51.09%** of the primary products or product ranges (best sellers) are positioned by the marketing decision-makers of manufacturers and dealers to be in the **growth phase** of the product life cycle.

Apart from this high positioning in the growth phase of the product life cycle **40.22%** of marketing decision-makers positioned their best sellers in the **maturity phase** of the product life cycle. A low percentage of best sellers are positioned in the **introductory (6.52%)** and **decline (2.17%)** phases of the PLC.

Table 7.19 will indicate whether the percentage breakdown among manufacturers and dealers reveal a different positioning perspective for best sellers on an organisational type basis.

Table 7.19: Percentage of primary products in each PLC phase per organisational type

Organisational type	Frequency per PLC phase								Total
	Introductory phase		Growth phase		Maturity phase		Decline phase		
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	
Manufacturers	1	4.76%	10	47.61%	9	42.85%	1	4.76%	21
Dealers	5	7.04%	37	52.11%	28	39.43%	1	1.41%	71
TOTAL	6	6.52%	47	51.08%	37	40.21%	2	2.17%	92

Similar to the result for the total sample represented in Table 7.18 the breakdown by organisational type illustrated in Table 7.19 reveals that the majority of manufacturers and dealers positioned their primary product ranges

in the growth phase of the product life cycle. In **52.11%** of all cases dealers indicated that their primary product is positioned in the growth phase while **47.61%** of manufacturers provided a similar positioning.

Both manufacturers and dealers provided a positioning where their primary products are mainly in the growth phase of the product life cycle followed by a positioning in the maturity, introductory and decline phases.

The main finding is that forty-eight percent of the marketing decision-makers in small manufacturing organisations and more than half of the marketing decision-makers in small dealer organisations indicated that their primary products or best sellers are positioned in the growth phase of their product life cycles.

Three interrelated questions following on question 10 were asked:

- **Question 10.1** was formulated to reveal a **description** of the primary product or product range (best seller).
- **Question 10.2** was formulated to reveal **reasons** why the primary product or product range was identified as the best seller.
- **Question 10.3** was formulated to reveal the ability of marketing decision-makers to identify the subsequent **marketing objective** of their best sellers in the identified PLC phases.

(i) Question 10.1

Provide a **short description** of your **primary product / product range**.

Question 10.1 is closely related to question 10 as marketing decision-makers of manufacturers and dealers in Gauteng had to describe their primary products or product ranges (best sellers). Table 7.20 provides the verbatim response from manufacturers and dealers of what their primary products (best selling product or product range) are.

Table 7.20: Verbatim representation of primary products/best sellers per organisational type

Organisational type	
Manufacturers	Dealers
Self inking stamp, Diabetes medicine, Liquid assisting weight loss, Bandages and plasters to hospitals, Cheap casual wear – T-shirts, Cheaper local modems, Lumber for roofing, Gates (manual and automatic), Wall & fencing, Double axled trailers, Suspensions for new trucks, Generic brake pads and clutches, Gold jewellery, Billiard and snooker tables, Cables and accessories, Network cables for large businesses, High blood pressure medication, Boiled sweets, Flour	CD's, Popular CD's, New brand jeans (CK, Diesel & Polo), Cables and power cards to electricians, Paint, Cement and bricks, Office furniture, assortment of office furniture, Prescriptive drugs, Passenger vehicles, All makes of televisions, Plastic Beetle shells on VW chassis, Desktops, Assorted meat, Assortment of tools, Clutch systems for cars, Desktop and laptop (IBM), Desktop and laptop computers, Refractory material, Desktop computers and accessories, Lower cost vehicles, Exhausts, High quality clothing and footwear, Low cost clothing and fashion accessories, Pre-cast walls, Maternity wear, Popular books, Baby educational toys, Electrical wiring, Electrical gates, Wolf lawnmowers, Colour TV's, Toshiba hi-fi's, Seasonal flowers, Building bricks, Copiers, Printers, Cell phones, Infant wear, Nescafé Classic, Oros in the soft drink product range, Christian biblical book, Pantene Shampoo within a product range, Sugar within a product range, Cereals within a product range, Academic books – prescribed, Lounge and bedroom suites, Cars, Gold jewellery, Tools

The information in Table 7.20 was deemed necessary to illustrate the nature and broad type of products of the two groups included in the study.

It is evident from Table 7.20 that most of the organisations' best sellers can be related to their core business. FMCG dealer organisations and other dealers however provided specific brand names such as Wolf, CK, Diesel, Polo, IBM, Toshiba, Nescafé Classic, Oros and Pantene. Manufacturers only provided the name of the product type or product item such a self-inking rubber stamp, diabetes medication, liquid assisting weight loss, bandages and plasters, cheap casual wear, modems, hand control gates and garage doors, lumber products, double axled trailers and suspensions for trucks.

(ii) Question 10.2

Provide a **reason(s)** why this product or product range is your **best seller**.

Table 7.21 illustrates the reasons why small manufacturers and small dealers regarded their products or product ranges as best sellers.

Table 7.21: Reasons why primary products or product ranges are best sellers

Reasons	Frequency					
	Manufacturers		Dealers		Total	
	Number	Percentage	Number	Percentage	Number	Percentage
1. Easy to use product	1	0.88%	1	0.88%	2	1.775
2. Brand name and quality	3	2.65%	10	8.85%	13	11.50%
3. Cheap local alternative	1	0.88%	0	0.00%	1	0.88%
4. Price	2	1.77%	20	17.70%	22	19.47%
5. Few competitors	2	1.77%	2	1.77%	4	3.54%
6. Large quantities	0	0.00%	1	0.88%	1	0.88%
7. Demand	4	3.54%	5	4.42%	28	7.96%
8. A price quality relationship	1	0.88%	0	0.00%	1	0.88%
9. Few manufacturers	1	0.88%	0	0.00%	1	0.88%
10. Good industry relationships or networking	0	0.00%	2	1.77%	2	1.77%
11. Location	0	0.00%	2	1.77%	2	1.77%
12. Size of the market	0	0.00%	2	1.77%	2	1.775
13. Niche market or opportunity	1	0.88%	2	1.77%	3	2.65%
14. Import	1	0.88%	0	0.00%	1	0.88%
15. Growing market	0	0.00%	3	2.65%	3	2.65%
16. A necessity product	3	2.65%	22	19.47%	25	22.12%
17. Low cost	1	0.88%	0	0.00%	1	0.88%
18. Product range	0	0.00%	1	0.88%	1	0.88%
19. Advertising message	0	0.00%	3	2.65%	3	2.65%
20. Value-for-money	0	0.00%	3	2.65%	3	2.65%
21. Reputation (company)	0	0.00%	2	1.77%	2	1.77%
22. Versatility	0	0.00%	1	0.88%	1	0.88%
23. Guarantees	0	0.00%	1	0.88%	1	0.88%
24. Good profit margin	0	0.00%	2	1.77%	2	1.77%
25. Relationships	0	0.00%	1	0.88%	1	0.88%
26. After-sales service	0	0.00%	1	0.88%	1	0.88%
27. Sales incentives	1	0.88%	0	0.00%	1	0.88%
28. Fashionable	0	0.00%	1	0.88%	1	0.88%
29. Supplementary product	0	0.00%	1	0.88%	1	0.88%
30. Specialisation	0	0.00%	1	0.88%	1	0.88%
31. Manufacturer promotions	0	0.00%	1	0.88	1	0.88%
TOTAL*	22	19.47%	91	80.53%	113	100%

* The total exceeds 92 responses because more than one reason was mentioned in some instances

Product necessity (no 16) with a total frequency percentage of **22.12%** is the most popular reason for the best seller, followed by price (no 4) **19.47%**, and brand name and quality (no 2) **11.50%** as shown in Table 7.21.

The reasons for best sellers exposed in Table 7.21 indicate that marketing decision-makers of manufacturing and dealer organisations in Gauteng mentioned marketing related reasons as primary reasons for creating best sellers. The necessity for a product (no 16), price (no 4), brand name and quality (no 2) are prominent marketing related reasons. Other marketing or marketing mix related reasons for best sellers are location, product range,

advertising message, value for money, reputation, guarantees, after sales service, supplementary products, specialisation and manufacturer promotions.

Table 7.21 indicates that dealers regard a necessity product (**19.47%**), price (**17.70%**) and brand name and quality (**8.85%**) as their main reasons for best sellers. Manufacturers disclosed their main reasons for best sellers to be demand (**3.54%**), brand name and quality (**2.65%**) and the necessity of the product (**2.65%**).

The total frequency of demand (no 7) **7.96%** and the frequency of demand for manufacturers (**3.54%**) are surprising, as the best seller is the result of demand and demand is not the reason for a best seller. A possible misunderstanding by some respondents is suggested.

The main finding is that the majority of the marketing decision-makers in manufacturing and dealer organisations indicated that necessity of the product is the primary reason for individual products or product ranges to be best sellers, followed by price.

(iii) Question 10.3

Describe the marketing objective for the primary product or product range in the product life cycle phase indicated in Q10.

Marketing decision-makers of manufacturers and dealers in Gauteng described the marketing objective of their primary products and/or product ranges (best sellers) within the PLC phase indicated in question 10 (Table 7.19). It is important to reiterate that **51.08%** of the best sellers are positioned in the **growth** phase of the product life cycle, followed by **40.21%** in the **maturity** phase, **6.52%** in the **introductory** phase and **2.17%** in the **decline** phase.

Table 7.22 presents marketing objectives for the primary products in the different PLC phases as mentioned by the marketing decision-makers in small organisations in Gauteng.

Table 7.22: Marketing objectives for primary products or product ranges in the PLC phases

Marketing objectives	Product life cycle phase				Total
	Introductory phase	Growth phase	Maturity phase	Decline phase	
1. High/maximum sales	3.13%	20.31%	10.93%	0.78%	35.15%
2. Low price	0.00%	5.47%	6.26%	0.00%	11.73%
3. Build on a solid introduction	0.00%	0.78%	0.00%	0.00%	0.78%
4. Use brand image	0.00%	0.00%	2.34%	0.00%	2.34%
5. Sufficient stock levels	0.00%	0.00%	0.78%	0.00%	0.78%
6. Product range and variety	0.00%	0.78%	1.56%	0.00%	2.34%
7. Meet the demand	0.00%	2.34%	0.78%	0.00%	3.13%
8. Intensive marketing	0.78%	0.00%	0.00%	0.00%	0.78%
9. Better buyer relationships	0.00%	0.78%	0.00%	0.00%	0.78%
10. Quality	0.00%	3.13%	0.00%	0.00%	3.13%
11. Maximum profit	0.00%	0.78%	2.34%	0.00%	3.13%
12. Keep current customers happy	0.00%	0.00%	0.78%	0.00%	0.78%
13. Exploit niche markets	0.00%	0.78%	0.00%	0.00%	0.78%
14. High or increased market share	0.00%	0.78%	0.00%	0.00%	0.78%
15. Low mark-up	0.78%	1.56%	0.00%	0.00%	2.34%
16. Customer retention	0.00%	3.91%	4.69%	0.00%	8.60%
17. Repeat purchases	0.00%	0.00%	0.78%	0.00%	0.78%
18. Increased advertising and promotion	1.56%	3.13%	2.34%	0.78%	7.81%
19. Customer acquisition	0.00%	0.78%	0.78%	0.00%	1.56%
20. Customer support	0.78%	1.56%	0.00%	0.00%	2.34%
21. Evaluating the product	0.00%	0.00%	0.00%	0.78%	0.78%
22. Service	0.00%	0.78%	0.00%	0.00%	0.78%
23. High return on investment (ROI)	0.00%	0.78%	0.00%	0.00%	0.78%
24. High profits	0.00%	0.78%	0.78%	0.00%	1.56%
25. Product awareness	0.78%	0.00%	0.00%	0.00%	0.78%
26. Intense competition	0.00%	1.56%	0.00%	0.00%	1.56%
27. Word-of-mouth / referrals	0.00%	0.00%	1.56%	0.00%	1.56%
28. Distribution	0.00%	0.78%	0.00%	0.00%	0.78%
29. Warranties	0.00%	1.56%	0.00%	0.00%	1.56%
TOTAL	7.81%	53.13%	36.72%	2.34%	100%

Table 7.22 portrays 29 marketing objectives provided by marketing decision makers on an open-ended response format and it yielded an allocation of **7.81%** of the marketing objectives to the introductory phase, **53.13%** to the

growth phase, **36.72%** to the maturity phase and **2.34%** to the decline phase. High/maximum sales is the marketing objective with the highest frequency in each of the four PLC phases – **3.13%** in the introductory phase, **20.31%** in the growth phase, **10.93%** in the maturity phase and **0.78%** in the decline phase. It is important to note that increased advertising and promotion (no 18) and evaluation the product (no 21) also achieved a frequency of **0.78%** in the decline phase.

The most important marketing objectives (highest frequencies) revealed by the respondents in each PLC phase are:

- Introductory phase – high/maximum sales (no 1) **3.13%**, increased advertising and sales promotion (no 18) **1.56%**.
- Growth phase – high/maximum sales (no 1) **20.31%**, low price (no 2) **5.47%** and customer retention (no 16) **3.91%**.
- Maturity phase – high/maximum sales (no 1) **10.93%**, low price (no 2) **6.26%** and customer retention (no 16) **4.69%**.
- Decline phase - high/maximum sales (no 1) and increased advertising and sales promotion (no 18) and evaluating of the product (no 21) **0.78%** respectively. The frequency is very low and must be viewed as not too an important finding.

The main finding is that marketing decision-makers in small organisations (small manufacturers and small dealers) provided primary marketing objectives in each PLC phase: high/maximum sales, increased advertising and sales promotion in the introductory phase, high/maximum sales and low price in the growth and maturity phases respectively and high/maximum sales, increased advertising & sales promotion and evaluating the product in the decline phase.

It is important to mention that by observing the above-mentioned marketing objectives, one can surmise that the respondents confused marketing objectives with marketing strategies because some of the “objectives” can be

regarded as strategies (e.g. increase advertising). This main finding should therefore be treated with some caution.

Table 7.23 presents marketing objectives for the primary products in the different PLC phases as mentioned by the marketing decision-makers per organisational type.

Table 7.23: Marketing objectives for primary products or product ranges per organisational type

Marketing objectives	Frequency					
	Manufacturers		Dealers		Total	
	Number	Percentage	Number	Percentage	Number	Percentage
1. High/maximum sales	5	3.91%	40	31.24%	45	35.15%
2. Low price	4	3.13%	11	8.60%	15	11.73%
3. Build on a solid introduction	1	0.78%	0	0.00%	1	0.78%
4. Use brand image	0	0.00%	3	2.34%	3	2.34%
5. Sufficient stock levels	1	0.78%	0	0.00%	1	0.78%
6. Product range and variety	0	0.00%	3	2.34%	3	2.34%
7. Meet the demand	1	0.78%	0	0.00%	1	0.78%
8. Intensive marketing	1	0.78%	0	0.00%	1	0.78%
9. Better buyer relationships	1	0.78%	0	0.00%	1	0.78%
10. Quality	1	0.78%	3	2.34%	4	3.13%
11. Maximum profit	1	0.78%	3	2.34%	4	3.13%
12. Keep current customers happy	1	0.78%	0	0.00%	1	0.78%
13. Exploit niche markets	0	0.00%	1	0.78%	1	0.78%
14. High or increased market share	0	0.00%	1	0.78%	1	0.78%
15. Low mark-up	1	0.78%	2	1.56%	3	2.34%
16. Customer retention	4	3.13%	7	5.47%	11	8.59%
17. Repeat purchases	0	0.00%	1	0.78%	1	0.78%
18. Increased advertising and promotion	0	0.00%	10	7.81%	10	7.81%
19. Customer acquisition	0	0.00%	2	1.56%	2	1.56%
20. Customer support	0	0.00%	3	2.34%	3	2.34%
21. Evaluating the product	1	0.78%	0	0.00%	1	0.78%
22. Service	0	0.00%	1	0.78%	1	0.78%
23. High return on investment	0	0.00%	1	0.78%	1	0.78%
24. High profits	0	0.00%	2	1.56%	2	1.56%
25. Product awareness	0	0.00%	1	0.78%	1	0.78%
26. Intense competition	0	0.00%	2	1.56%	2	1.56%
27. Word-of-mouth / referrals	0	0.00%	2	1.56%	2	1.56%
28. Distribution	1	0.78%	0	0.00%	1	0.78%
29. Warranties	1	0.78%	1	0.78%	1	1.56%
TOTAL	25	19.53%	103	80.47%	128	100%

The result depicted in Table 7.23 attempted to describe the various marketing objectives yielded by the total sample provided by a frequency distribution per organisational type – small manufacturing organisations and small dealer organisations.

From the percentage of total results in Table 7.23 it can be seen that small dealers indicated high/maximum sales (no 1) with a frequency of **31.24%** as the number one marketing objective, followed by low price (no 2) with a frequency of **8.60%** and increased advertising and promotions (no 18) with a frequency of **7.81%**. Small manufacturers selected high/maximum sales (no 1) with a frequency of **3.91%** as the number one marketing objective, followed by low price (no 2) and customer retention (no 16) both with a frequency of **3.13%**.

If the number of frequencies in Table 7.23 are not expressed as a percentage of the total frequency, but per organisational type (25 small manufacturing organisations and 103 small dealer organisations), then the percentages are as follows:

- small manufacturing organisations provided high/maximum sales (no 1) 20% ($5/25 \times 100$), low price (no 2) 16% (4) and customer retention (no 16) 16% (4) as the marketing objectives for their best sellers.
- small dealer organisations provided high/maximum sales (no 1) 38.83% (40), low price (no 2) 10.67% (11) and increased advertising and promotion (no 18) 9.70% (10).

The main finding is that marketing decision-makers in both small manufacturing organisations and small dealer organisations provided high/maximum sales as the primary marketing objective for their best seller, followed by low price (and customer retention for small manufacturers as the third most important objective).

7.4.3 Section C

The purpose of Section C was to mainly focus on how, and how often small manufacturers and dealers in Gauteng engage in strategic planning and development. This section furthermore wanted to reveal the extent to which small manufacturers and dealers use the PLC concept in strategic planning and development and the subsequent control they have over the marketing mix instruments. The following results provide the necessary information on marketing strategy planning and development and control over marketing mix elements that can be used for potential cross-tabulation purposes later on in the analysis.

(a) Question 11

Does your organisation engage in **strategic marketing planning and development** using the product life cycle phases?

Table 7.24 provides the answer to what extent the PLC phases are used for strategic marketing planning and development purposes.

Table 7. 24: Strategic marketing planning and development by using the product life cycle phases

Strategic planning and development by using the PLC	Frequency	Percentage
Yes	70	76.09%
No	22	23.91%
TOTAL	N = 92	100

Seventy-six percent of the respondents indicated that they use the PLC phases when they engage in strategic planning and development.

Table 7.25 displays differences between manufacturers and dealers in using the PLC phases when they engage in strategic marketing planning and development.

Table 7.25: The use of the PLC in strategic marketing planning and development per organisational group

	Manufacturers		Dealers	
	Number	Percentage	Number	Percentage
Yes	16	76.19%	54	76.05%
No	5	23.81%	17	23.95%
TOTAL	21	100%	71	100%

Table 7.25 illustrates that there is no difference between the small manufacturers and small dealers with regard to the percentage use of the PLC in strategic marketing planning and development.

The main finding is that more than three-quarters of manufacturing and dealer organisations in Gauteng engage in strategic marketing planning and development by using the product life cycle phases.

(b) Question 12

If yes on Question 11, how often does your organisation do strategic marketing planning and development?

Manufacturers and dealers in Gauteng engage in strategic marketing and planning on an annual basis in **53.03%** of all cases as depicted in Table 7.26. The result in Table 7.26 shows that small manufacturers and small dealers in Gauteng engage in strategic marketing and planning on a six monthly basis or less in **33.33%** of all cases as indicated by the cumulative percentage.

Table 7.26: Involvement in strategic marketing planning and development for the total sample

Engagement occurrence	Frequency	Percentage	Cumulative percentage
Monthly	9	13.64%	13.64%
Six monthly	13	19.69%	33.33%
Annually	35	53.03%	96.36%
Other(more than 12 months)	9	13.64%	100%
TOTAL	N = 66*	100	-

* Four respondents didn't complete this question when compared to the 70 respondents who have said "yes" in Table 7.24

One can deduce that small manufacturers and small dealers in Gauteng realise the importance of adapting to the fast pace of developments and changes in the external environment as described in the theory on the strategic audit and SWOT analysis in chapter two.

The main finding is that small manufacturing organisations and small dealer organisations in Gauteng do strategic marketing planning and development on an annual basis or less frequently (96% of the sample).

Table 7.27 illustrates the differences between manufacturers and dealers using the PLC phases according to the period of involvement in strategic marketing planning and development.

Table 7.27: Involvement in strategic marketing planning and development per organisational type

Organisational type	Strategic marketing planning and development by using the PLC phases							
	Monthly		Six monthly		Annually		Other	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Manufacturers	1	11.12%	4	30.76%	10	28.57%	0	0.00%
Dealers	8	88.88%	9	69.24%	25	71.43%	9	100%
TOTAL	9	100%	13	100%	35	100%	9	100%

When compared to the results in Table 7.25 then it is clear that one manufacturer and three dealers did not answer this question.

It can be seen in Table 7.27 that 35 of the 66 respondents (**53.03%**) of small dealers and small manufacturers engage in strategic marketing planning and development on an annual basis. Manufacturers (10) represented **28.57%** of this total and dealers (25) **71.43%**.

An encouraging sign from the result illustrated in Table 7.27, among manufacturers and retailers (22/66) is the practice to engage in strategic marketing planning and development on a monthly basis (9/66) and even more (13/66) on a 6 monthly basis.

The main finding is that **66.66% (10/15)** of small manufacturing organisations in Gauteng and **49.01% (25/51)** of small dealer organisations in Gauteng do strategic marketing planning and development on an annual basis.

(c) Question 13

To what extent does the product life cycle concept influence **marketing strategy planning and development** in your organisation? (**"1" would indicate a very low influence and "5" an extremely high influence**).

The extent of influence by the PLC on marketing strategy planning and development is illustrated in Table 7.28.

Table 7.28: Influence of the PLC concept on marketing strategy planning and development for the total sample

Extent of influence	Frequency	Percentage	Cumulative percentage
1	0	0.00%	0.00%
2	7	7.61%	7.61%
3	36	39.13%	46.74%
4	32	34.78%	81.52%
5	17	18.48%	100.00%
TOTAL	N = 92	100	

Mean from the total sample = **3.64**

From Table 7.28 it can be seen that **7.61% (7)** of the respondents indicated a relatively low influence of the PLC concept on marketing strategy planning and development.

The marketing strategy planning process and development is to a very high extent influenced by the product life cycle concept as indicated by the mean score of **3.64** for the total sample as reported in Table 7.28. A high percentage (92.39%) of decision-makers in manufacturing and dealer organisations indicated an average to above average extent of influence by the PLC concept on strategic marketing planning and development.

The main finding is that 92% of manufacturing and dealer organisations in Gauteng indicated that the product life cycle influences marketing strategy and development from an average to an above average extent.

Table 7.29 reveals the influence of the product life cycle concept on marketing strategy planning and development per organisational type.

Table 7.29: Influence of the PLC concept on marketing strategy planning and development by organisational type

Organisational type	Mean	Standard deviation	p-value
Manufacturers	3.71	0.78	0.6015
Dealers	3.61	0.90	

Marketing decision-makers in both manufacturing and dealer organisations revealed above average mean scores and low standard deviations on the extent of influence of the PLC concept on marketing strategy planning in development as depicted in Table 7.29.

The different mean scores for each group together with the p-value will illustrate whether the mean differences between manufacturers and dealers can be regarded as significant. If the decision rule that a p-value of ≤ 0.05 is an indication of a significant difference in the mean scores between manufacturers and dealers then the p-value as depicted in Table 7.26 indicates a difference of non-significance. Thus, there is no significant difference in the extent to which the PLC concept influences marketing strategy planning and development by manufacturers and dealers based on the different mean scores reported in Table 7.29.

The main finding is that there is no difference between small manufacturing and small dealer organisations in Gauteng in the extent to which the product life cycle influences marketing strategy and development.

(d) Question 14

What degree of control does the organisation have over the marketing mix instruments? (**“1” would indicate no degree of control and “5” would indicate a full degree of control**).

This question was intended to reveal the degree of control that marketing decision-makers in organisations have over the different marketing mix instruments. Table 7.30 indicates that the respondents have the best control over product (V53) as a marketing mix instrument depicted by a mean score of **4.30**, followed by people (V57) **4.29**, place (V55) **4.13**, price (V 54) **4.09**, promotion (V 56) **4.08**, processes (V58) **4.05** and physical evidence (V59) **3.91**.

Table 7.30: Degree of control over the marketing mix instruments for the total sample

Marketing mix instrument	Frequency	Mean	Top-box score	Low-box score	Standard deviation
V53. Product	92	4.30	54.35%	2.17%	0.94
V54. Price	92	4.09	41.30%	0.00%	0.91
V55. Place	92	4.13	35.87%	0.00%	0.84
V56. Promotion	92	4.08	38.04%	1.09%	0.90
V57. People	92	4.29	48.91%	0.00%	0.83
V58. Processes	92	4.05	39.13%	0.00%	0.98
V59. Physical evidence	92	3.91	36.96%	0.00%	1.05

A majority of **54.35%** (top-box score) of the total sample indicated that they have full control over product (V53) as a marketing mix instrument, followed by control over people (V57) (**48.91%**), price (V54) (**41.30%**), processes (VV58) (**39.13%**), promotion (V56) (**38.04%**), physical evidence (V59) (**36.96%**) and place (V55) (**35.87%**).

If the standard deviations in Table 7.30 are analysed, then the respondents in the sample were the most heterogeneous on physical evidence (V59) when compared to the standard deviations on the other marketing mix instruments.

The result depicted in Table 7.30 is further strengthened by low-box scores of **0.00%** for price (V54), place (V55), people (V57), processes (V58) and physical evidence (V59) as well as the relatively low scores for product (**2.17%**) and promotion (**1.09%**) indicating that few manufacturers and dealers in the sample have no degree of control over their marketing mix instruments. Table 7.31 demonstrates whether there are differences in the degree of control over the marketing mix instruments between manufacturers and dealers.

Table 7.31: Degree of control over the marketing mix instruments between manufacturers and dealers

Marketing mix instruments	Mean		p-value
	Manufacturers	Dealers	
V53. Product	4.76	4.16	0.0104
V54. Price	4.38	4.01	0.1293
V55. Place	3.80	4.22	0.2921
V56. Promotion	3.90	4.14	0.3189
V57. People	4.33	4.28	0.8827
V58. Processes	4.19	4.01	0.3173
V59. Physical evidence	3.71	3.97	0.3671

It is important to determine whether the differences on the mean scores in Table 7.31 are significant or not. The Mann-Whitney U test for non-parametric statistics was used for significant testing between manufacturers and dealers for V53 to V59. The p-values from the Mann-Whitney U test are illustrated in Table 7.31.

When the decision-rule that a p-value ≤ 0.05 is an indication of a significant difference is applied, then all the p-values depicted in Table 7.31 are indicative that the majority of differences in mean scores between manufacturers and dealers on the degree of control over the various marketing mix instruments are not significant. The only significant difference

between manufacturers and dealers is on product as a marketing mix instrument indicated by a p-value of 0.0104.

The main finding is that with regard to the degree of control the only significant difference between small manufacturing organisations and small dealer organisations is with the product mix variable.

Manufacturers have the highest degree of control over product (V53) as a marketing mix instrument, indicated by a mean score of **4.76**. On the contrary, dealers have the highest degree of control over people (V57) as a marketing mix instrument, indicated by a mean score of **4.28**.

Both manufacturers and dealers revealed that they have the least control over physical evidence, indicated by mean scores of **3.71** and **3.97** respectively.

The main finding is that small manufacturing organisations have the highest degree of control over product while small dealer organisations have the highest degree of control over people as a marketing mix instrument.

(e) Question 15

How **important** is each of the following aspects* when you associate them with the four phases of the product life cycle. (**"1" would indicate that the aspect is not important at all and a "5" would indicate that the aspect is extremely important**).

* The reader is referred to the questionnaire in Appendix 2 where the aspects are listed, inter alia with regard to people, processes and physical evidence.

Marketing decision-makers in manufacturing and dealer organisations rated the importance of marketing mix related aspects of people, processes and physical evidence within each product life cycle phase. (In question 19 marketing decision-makers had the opportunity to rate the importance of marketing mix related aspects on product, price place and promotion within each product life cycle phase). With the result of these two questions the

researcher endeavours to develop marketing mix related aspects that can be associated with each PLC phase.

The importance of the marketing mix instrument related aspects regarding the expanded marketing mix instruments of people, processes and physical evidence in the various product life cycle phases are illustrated in Table 7.32 (introductory phase), Table 7.33 (growth phase), Table 7.34 (maturity phase) and Table 7.35 (decline phase). The importance of the aspects in the introductory phase of the PLC shown in Table 7.32 will now be discussed.

Table 7.32: The importance of marketing mix related aspects (people, processes and physical evidence) in the introductory phase of the PLC

Marketing mix instrument	Introductory phase					
	Aspects	Responses	Mean	Top-box score	Low-box score	Standard deviation
People	77. Training of personnel	91	4.49	62.64%	0.00%	0.76
	81. Incentives to personnel	91	4.61	68.13%	0.00%	0.61
	85. Knowledge of personnel	91	4.26	47.25%	0.00%	0.81
	89. Commitment of personnel	91	3.93	40.66%	3.30%	1.13
Processes	93. Information systems	90	3.76	31.11%	7.78%	1.20
	97. Complaints handling	88	3.95	31.82%	1.14%	0.92
	101. Toll free number	89	4.04	32.58%	1.12%	0.83
	105. Policies and procedures	88	4.05	36.36%	1.14%	0.92
Physical evidence	109. Organisation's reputation	90	4.76	82.22%	0.00%	0.56
	113. Organisation's name	90	4.82	84.44%	0.00%	0.43
	117. Organisation's logo	90	4.81	82.22%	1.11%	0.42
	121. Corporate dress (appearance of employees)	90	4.68	74.44%	0.00%	0.57

The results in Table 7.32 indicate that the respondents regard incentives to personnel (no 81) as the most important **people** aspect in the introductory phase of the product life cycle with a mean score of **4.61** and a top-box score of **68.31%** and a low-box score of **0.00%**

If the standard deviations in Table 7.32 on all the aspects tested are compared, then the standard deviations of **1.13** on commitment of personnel (no 89) and **1.20** on information systems (no 93) are indicative of higher heterogeneity.

The main finding is that marketing decision-makers in small manufacturing and small dealer organisations in Gauteng regard incentives to personnel as the most important *people* aspects in the introductory phase of the PLC.

Policies and procedures (V105) (**4.05**) and the organisation's name (no 113) **4.82** are regarded as the most important with regard to process and physical evidence elements respectively.

The main finding is that policies and procedures are regarded by marketing decision-makers in small manufacturing and small dealer organisations in Gauteng as the most important *process* aspect in the introductory phase of the PLC.

The highest top-box score of **84.44%** was achieved by the organisation's name (no 113) as a physical evidence aspect. A very positive result is indicated by the low-box scores of **0.00%** on various aspects as depicted in Table 7.32.

Another main finding is that the organisation's name is regarded by marketing decision-makers in small manufacturing and small dealer organisations in Gauteng as the most important *physical evidence* aspect in the introductory phase of the PLC.

Table 7.33 provides a similar analysis on the importance of marketing mix related aspects for the sample in the growth phase of the product life cycle.

Table 7.33: The importance of marketing mix related aspects (people, processes and physical evidence) in the growth phase of the PLC

Marketing mix instrument	Growth phase					
	Aspects	Responses	Mean	Top-box score	Low-box score	Standard deviation
People	78. Training of personnel	91	3.79	41.76%	2.20%	1.23
	82. Incentives to personnel	91	4.08	43.96%	1.10%	0.96
	86. Knowledge of personnel	90	3.94	33.33%	1.11%	0.94
	90. Commitment of personnel	91	3.74	30.77%	1.10%	1.04
Processes	94. Information systems	90	4.24	55.56%	1.11%	1.03
	98. Complaints handling	90	4.44	61.11%	3.33%	0.80
	102. Toll free number	90	4.34	52.22%	3.33%	0.80
	106. Policies and procedures	90	4.28	53.33%	0.00%	0.90
Physical evidence	110. Organisation's reputation	90	4.08	43.33%	1.11%	0.99
	114. Organisation's name	90	4.10	43.33%	1.11%	0.94
	118. Organisation's logo	90	4.20	47.78%	1.11%	0.90
	122. Corporate dress (appearance of employees)	90	4.08	43.33%	2.22%	0.97

Table 7.33 indicates that the respondents regard incentives to personnel (no 82) as the most important people aspect with a mean score of **4.08**, a top-box score of **43.96%** and a low-box score of **1.10%** in the growth phase of the product life cycle. Complaints handling (no 98) with a mean score of **4.44** and a toll free number (no 102) with a mean score of **4.34** were the most important **process** aspects. The organisation's logo (no 118) with a mean score of **4.20** and organisation's name (no 114) **4.10** are regarded as the most important **physical evidence** aspects. The highest top-box score of **55.56%** was achieved by the information systems as a process aspect.

The low-box scores of between **0.00%** and **3.33%** on various aspects as depicted in Table 7.33 are very positive results because the majority of the respondents regarded the aspects as relatively important (lowest mean score was 3.74).

The main finding is that marketing decision-makers in small manufacturing and small dealer organisations in Gauteng regard incentives to personnel as the most important *people* aspect in the growth phase of the PLC.

Another main finding is that marketing decision-makers in small manufacturing and small dealer organisations in Gauteng regard complaints handling (followed by a toll free number) as the most important *process* aspects in the growth phase of the PLC.

The last main finding from Table 7.33 is that marketing decision-makers in small manufacturing organisations and small dealer organisations in Gauteng regard the organisation's logo as the most important *physical evidence* aspect in the growth phase of the PLC, followed by the organisation's name.

If the standard deviations in Table 7.33 on all the aspects tested are compared, then the standard deviations on training of personnel (no 78) of **1.23**, commitment of personnel (no 90) of **1.04** and on information systems (no 94) of **1.03** are indicative of a higher heterogeneity.

Table 7.34 provides an analysis on the importance of marketing mix related aspects for the sample in the maturity phase of the product life cycle.

Table 7.34 indicates that the respondents regard incentives to personnel (no 83) as the most important people aspect with a mean score of **4.24**, a top-box score of **50.55%** and a low-box score of **1.10%** in the maturity phase of the product life cycle. This is followed by the training of personnel (no 79) with a mean score of **4.14**.

Complaints handling (no 99) (**2.66**), the organisation's logo (no 119) (**3.86**) and the organisation's name (no 115) (**3.83**) are regarded as the most important process and physical evidence aspects respectively.

Table 7.34: The importance of marketing mix related aspects (people, processes and physical evidence) in the maturity phase of the PLC

Marketing mix instrument	Maturity phase					
	Aspects	Responses	Mean	Top-box score	Low-box score	Standard deviation
People	79. Training of personnel	91	4.14	51.65%	1.10%	1.06
	83. Incentives to personnel	91	4.24	50.55%	1.10%	0.89
	87. Knowledge of personnel	91	4.12	41.76%	1.10%	0.89
	91. Commitment of personnel	91	4.03	42.86%	1.10%	1.00
Processes	95. Information systems	90	2.56	17.78%	35.56%	1.49
	99. Complaints handling	90	2.66	15.56%	26.67%	1.40
	103. Toll free number	90	2.63	13.33%	28.89%	1.37
	107. Policies and procedures	90	2.63	13.33%	30.00%	1.40
Physical evidence	111. Organisation's reputation	90	3.76	33.33%	7.78%	1.19
	115. Organisation's name	90	3.83	33.33%	4.44%	1.07
	119. Organisation's logo	90	3.86	35.56%	4.44%	1.08
	123. Corporate dress (appearance of employees)	90	3.78	33.33%	5.56%	1.11

The main finding is that marketing decision-makers in small manufacturing organisations and small dealer organisations in Gauteng regard incentives to personnel as the most important *people* aspect in the maturity phase of the PLC, followed by training of personnel.

The highest mean score of **2.66** on complaints handling (no 99) in the maturity phase is relatively low when compared to the highest mean scores for people (**4.24**) and physical evidence (**3.86**). The highest top-box score of **50.55%** was achieved by the incentives to personnel (no 83) as a people aspect. The low-box scores in Table 7.34 on all the information system aspects (no 95) are somewhat surprising because one would have expected information systems to be considered important, but it can be surmised that information systems are already established and working well.

Another main finding is that marketing decision-makers in small manufacturing and small dealer organisations in Gauteng regard

complaints handling as the most important *process* aspect in the maturity phase of the PLC (although the mean score was relatively low).

The high standard deviations on processes and physical evidence depicted in Table 7.34 are an indication that the sample is less homogeneous on the aspects pertaining to these two marketing mix instruments than on the aspects related to people.

The last main finding from Table 7.34 is that marketing decision-makers in small manufacturing and small dealer organisations in Gauteng regard the organisation's logo as the most important *physical evidence* aspect in the maturity phase of the PLC, followed by the organisation's name.

Table 7.35 illustrates a similar analysis on the importance of marketing mix related aspects for the sample in the decline phase of the product life cycle.

Table 7.35: The importance of marketing mix related aspects (people, processes and physical evidence) in the decline phase of the PLC

Marketing mix instrument	Decline phase					
	Aspects	Responses	Mean	Top-box score	Low-box score	Standard deviation
People	80. Training of personnel	91	4.56	64.84%	1.10%	0.67
	84. Incentives to personnel	91	4.59	59.34%	0.00%	0.49
	88. Knowledge of personnel	90	4.45	51.11%	0.00%	0.60
	92. Commitment of personnel	91	4.28	49.45%	1.10%	0.63
Processes	96. Information systems	90	4.12	38.89%	1.11%	0.87
	100. Complaints handling	89	4.25	47.19%	1.12%	0.85
	104. Toll free number	90	4.30	47.78%	1.11%	0.81
	108. Policies and procedures	89	4.19	42.70%	1.12%	0.86
Physical evidence	112. Organisation's reputation	91	3.97	45.05%	4.40%	1.16
	116. Organisation's name	91	4.07	47.25%	2.20%	1.08
	120. Organisation's logo	91	4.08	47.25%	2.20%	1.07
	124. Corporate dress (appearance of employees)	91	4.04	43.96%	2.20%	1.08

Table 7.35 indicates that the respondents regard incentives to personnel (no 84) (**4.59**) as the most important **people** aspects and training of personnel (no 80) (**4.56**) as the second most important people aspect in the decline phase of the product life cycle. This is closely followed by the knowledge of personnel (no 88) with a mean score of **4.45**. A toll free number (no 104) (**4.30**) and complaints handling (no 100) (**4.25**) are viewed as very important **process** aspects. The organisation's logo (no 120) (**4.08**) and organisation's name (no 116) (4.07) are regarded as the most important **physical evidence** aspects. The highest top-box score of **64.84%** was achieved by the training of personnel (no 80) as a people aspect.

The low-box scores of between **0.00%** and **4.40%** on all the aspects as depicted in Table 7.35 are very positive because the majority regarded all aspects as relatively important (lowest mean score 3.97).

The high standard deviations on physical evidence shown in Table 7.35 are an indication that the sample is less homogeneous on the aspects pertaining to this marketing mix instrument aspects than on the aspects pertaining to people and processes.

The main finding is that marketing decision-makers in small manufacturing and small dealer organisations in Gauteng regard incentives to personnel as the most important *people* aspect in the decline phase of the PLC, followed by training of personnel.

Another main finding is that marketing decision-makers in small manufacturing and small dealer organisations in Gauteng regard a toll free number as the most important *process* aspect in the decline phase of the PLC, followed by the organisation's name.

The last main finding from Table 7.35 is that marketing decision-makers in small manufacturing and small dealer organisations in Gauteng regard the organisation's logo as the most important *physical evidence*

aspect in the decline phase of the PLC although the organisation's name had virtually the same importance.

Tables 7.32 to 7.35 illustrated the importance of the three expanded marketing mix instruments in the product life cycle phases and their related aspects. A summarised representation across all four of the product life cycle phases on each of the expanded marketing mix instruments is provided in Table 7.36.

Table 7.36: The importance of marketing mix related aspects in the various PLC phases

Marketing mix instrument	Aspect	Mean values per PLC phase			
		Introductory	Growth	Maturity	Decline
People	(77 – 80) Training of personnel	4.49	3.79	4.14	4.56
	(81 – 84) Incentives to personnel	4.61	4.08	4.24	4.59
	(85 – 88) Knowledge of personnel	4.26	3.94	4.12	4.45
	(89 – 92) Commitment of personnel	3.93	3.74	4.03	4.28
Processes	(93 – 96) Information systems	3.76	4.24	2.56	4.12
	(97 – 100) Complaints handling	3.95	4.44	2.66	4.25
	(101 – 104) Toll free number	4.04	4.34	2.63	4.30
	(105 – 108) Policies and procedures	4.05	4.28	2.63	4.19
Physical evidence	(109 – 112) Organisation's reputation	4.76	4.08	3.76	3.97
	(113 – 116) Organisation's name	4.82	4.10	3.83	4.07
	(117 – 120) Organisation's logo	4.81	4.10	3.86	4.08
	(121 - Corporate dress (appearance of employees)	4.68	4.08	3.78	4.04

Table 7.36 reiterates the interpretation and deductions made from Tables 7.32 to 7.35 and illustrates the high mean scores on the importance of all the marketing aspects except for the low mean scores on all the marketing mix aspects for processes in the maturity phase as highlighted.

The main finding is that all the marketing mix related aspects pertaining to people, processes and the physical evidence mix are important

except for the marketing mix aspects linked to processes in the maturity phase.

Table 7.37 provides a summary of the mean values per marketing mix instrument.

Table 7.37: Importance of the three expanded marketing mix instruments

Marketing mix instrument	Mean
People (no 77 – 92)	4.36
Processes (no 93 – 108)	3.74
Physical evidence (no 109 – 124)	4.07

It is evident that the mean values on the importance of the marketing mix instruments based on certain aspects are all above average as depicted in Table 7.37. **Processes** has the lowest mean value of **3.74** and **people** has the highest mean value of **4.36**. A similar analysis will be conducted on the marketing mix related aspects for the other 4Ps namely product, price, place and promotion in question 19.

The finding is that marketing decision-makers in the sample attached high importance to the people, processes and physical evidence (expanded marketing mix) across all four phases of the product life cycle concept.

It is important to determine how the mean values for each marketing mix instrument compare in all four PLC phases. Table 7.38 illustrates the importance of each marketing mix instrument in the different PLC phases based on mean values.

The mean values depicted in Table 7.38 are indicative of the high importance given to the expanded marketing mix instruments in all the PLC phases. The standard deviations depicted in Table 7.38 are indicative of heterogeneity on

the importance of aspects pertaining to people, processes and physical evidence.

Table 7.38: The importance of the marketing mix instruments in the different PLC phases

	PLC phase	Mean	Standard deviation
People	Introductory	4.32	0.75
	Growth	3.88	0.57
	Maturity	4.13	0.59
	Decline	4.47	0.71
Processes	Introductory	3.95	0.92
	Growth	4.32	0.74
	Maturity	2.62	0.66
	Decline	4.21	0.70
Physical evidence	Introductory	4.76	0.78
	Growth	4.09	0.71
	Maturity	3.80	0.70
	Decline	4.04	0.74

If the mean values in Table 7.38 on the marketing mix aspects are compared among the four PLC phases, then:

- **physical evidence (4.76)** is the most important marketing mix instrument in the introductory phase of the PLC,
- **processes (4.32)** is the most important marketing mix instrument in the growth phase of the PLC,
- **people (4.13)** is the most important marketing mix instrument in the maturity phase of the PLC, and
- **people (4.47)** is the most important marketing mix instrument in the decline phase of the PLC.

The main finding is that marketing decision-makers regard physical evidence as the most important marketing mix instrument in the introductory phase of the product life cycle.

Another main finding is that marketing decision-makers regard processes as the most important marketing mix instrument in the growth phase of the product life cycle.

The last main finding from Table 7.38 is that marketing decision-makers regard people as the most important marketing mix instrument in the both the maturity and decline phases of the product life cycle.

Table 7.39 illustrates the importance of the different marketing mix instruments in each of the PLC phases per organisational group (manufacturers and dealers).

Table 7.39: The importance of the marketing mix instrument in the different PLC phases per organisational type

Marketing mix instrument	PLC phase	Organisational type			
		Manufacturers		Dealers	
		Mean	Standard deviation	Mean	Standard deviation
People	Introductory	4.19	0.70	4.29	0.76
	Growth	3.35	0.50	4.41	0.59
	Maturity	4.16	0.44	4.20	0.63
	Decline	4.24	0.42	4.23	0.78
Processes	Introductory	3.85	0.89	3.91	0.93
	Growth	4.77	0.52	3.97	0.80
	Maturity	2.71	0.48	2.53	0.70
	Decline	3.89	0.45	4.53	0.76
Physical evidence	Introductory	4.77	0.87	4.75	0.73
	Growth	3.96	0.66	4.24	0.72
	Maturity	3.77	0.63	3.83	0.71
	Decline	3.97	0.63	4.17	0.76

As shown in Table 7.39 **people** are the most important marketing mix aspect for small manufacturers (**4.24**) in the decline phase and to small dealers (**4.41**) in the growth phase. **Process** is the most important marketing mix instrument for small manufacturers (**4.77**) in the growth phase while it is the most important to small dealers (**4.53**) in the decline phase. **Physical evidence** is the most important marketing mix instrument to both small manufacturers (**4.77**) and small dealers (**4.75**) in the introductory phase.

The main finding is that **physical evidence** is the only marketing mix instrument with the highest degree of importance for both small manufacturers and small dealers in the same PLC phase, namely introductory.

Another main finding is that small manufacturers attach an equal degree of importance to processes and physical evidence as marketing mix instruments in the *growth* and *introductory* phases respectively compared to the importance of the people mix instrument in the other PLC phases.

The last main finding from Table 7.39 is that dealers regard physical evidence as the most important marketing mix variable in the introductory phase followed by processes as the most important in the decline phase compared to the other PLC phases.

Table 7.40 reveals whether there are significant differences on the mean values of the marketing mix instruments in the different PLC phases.

The Friedman's two-way analysis of variance for non-descriptive statistics was used to compare the mean scores on the importance of the different marketing mix instruments in the different PLC phases. See Appendix 4 for more detail on non-parametric statistics and the Friedman two-way analysis of variance.

Table 7.40: Significance test on the importance of the marketing mix instruments in the different PLC phases

PLC phases	Marketing mix instrument						p-value
	People		Processes		Physical evidence		
	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation	
Introductory phase	4.32	0.75	3.95	0.92	4.76	0.78	0.1530
Growth phase	3.88	0.57	4.32	0.74	4.09	0.71	0.2839
Maturity phase	4.13	0.59	2.62	0.66	3.80	0.70	0.6306
Decline phase	4.47	0.71	4.21	0.70	4.04	0.74	0.0520

When the decision-rule that a p-value ≤ 0.05 is an indication of a significant difference is applied, then all the p-values depicted in Table 7.40 indicating that there are no significant differences in the mean values for the different marketing mix instruments in the same PLC phase.

The test for significant differences in Table 7.40 emphasises the high importance placed on the three expanded marketing mix instruments.

The main finding is that there is no significant difference in the importance of the mean values for each of the three expanded marketing mix instruments within the same PLC phase.

(f) Questions 16

Provide a short description of the appropriate **marketing objective** that you would associate within each phase of the product life cycle.

The different marketing objectives in each PLC phase will be shown in a table format including the objectives provided by all the respondents and by the two groups (small manufacturing organisations and small dealer organisations).

(i) Question 16.1

Provide a short description of the appropriate **marketing objective** that you would associate with the **introductory phase** of the product life cycle.

Marketing decision-makers of small manufacturing and dealer organisations in Gauteng mentioned 21 different marketing objectives that can be associated with the introductory phase of the product life cycle as depicted in Table 7.40.

Table 7.41 shows that heavy/intensive advertising (no 1) has the highest total frequency of **36.89%** followed by the building of strong brand image and awareness (no 2) with a total frequency of **21.32%**. The total frequencies on all the promotional components of advertising (no 1), sales promotion (no 4) and personal selling (no 5) provide a frequency of **41.80%** (51/122).

Table 7.41: Marketing objectives in the introductory phase of the PLC

Marketing objectives	Frequency					
	Manufacturers		Dealers		Total	
	Number ¹	Percentage	Number ¹	Percentage	Number ¹	Percentage
1. Heavy/intensive advertising	9	7.58%	36	29.51%	45	36.89%
2. Build strong brand image and awareness	5	4.10%	21	17.22%	26	21.32%
3. Lower prices	1	0.82%	6	4.92%	7	5.74%
4. Sales promotion	0	0.00%	4	3.28%	4	3.28%
5. Personal selling	1	0.82%	1	0.82%	2	1.64%
6. Cold calling	1	0.82%	0	0.00%	1	0.82%
7. High sales	1	0.82%	10	8.20%	11	9.02%
8. Simple product/ product line	3	2.46%	1	0.82%	4	3.28%
9. Build reputation	0	0.00%	1	0.82%	1	0.82%
10. Limited product range	0	0.00%	2	1.64%	2	1.64%
11. Training of personnel (sales team)	0	0.00%	3	2.46%	3	2.46%
12. Building customer base	1	0.82%	2	1.64%	3	2.46%
13. Competitiveness	1	0.82%	0	0.00%	1	0.82%
14. Establish good distribution	2	1.64%	1	0.82%	3	2.46%
15. Competitive prices	0	0.00%	1	0.82%	1	0.82%
16. Penetration	0	0.00%	1	0.82%	1	0.82%
17. Build strong relationships	1	0.82%	0	0.00%	1	0.82%
18. Research for better quality	1	0.82%	0	0.00%	1	0.82%
19. Limited product / lines	1	0.82%	1	0.82%	2	1.64%
20. Continuous market monitoring	0	0.00%	1	0.82%	1	0.82%
21. Encourage brand switching	0	0.00%	1	0.82%	1	0.82%
TOTAL	29	23.97%	93	76.23%	122	100%

¹ Number of times that these objectives were mentioned by respondents

The main finding is that the sample described heavy/intensive advertising as the primary marketing objective in the *introductory phase* of the PLC, followed by the building of a strong brand image and awareness.

If the number of frequencies in Table 7.41 are not expressed as a percentage of the total frequency, but per organisational type (29 small manufacturing organisations and 93 small dealer organisations), then the percentages are as follows:

- small manufacturing organisations provided heavy/intensive advertising (no 1) **31.03%** (9/29), build strong brand image and awareness (no 2) **17.24%** (5/29) and simple product/product line (no 8) **10.34%** (3/29) as the three main marketing objectives in the introductory phase of the product life cycle.

- small dealer organisations provided heavy/intensive advertising (no 1) **38.70%** (36/93), build strong brand image and awareness (no 2) **22.58%** (21/93) and high sales (no 7) **10.75%** (10/93) as the three main marketing objectives in the introductory phase of the product life cycle.

The above-mentioned deductions concur with the main finding of total frequencies. It can be assumed that marketing decision-makers in small manufacturing organisations and small dealer organisations may have confused marketing objectives and marketing strategies in the introductory phase of the PLC. They reported marketing objectives that are in fact marketing strategies such as offering a *simple product/product line*.

The main finding is that marketing decision-makers in both small manufacturing organisations and small dealer organisations independently described heavy/intensive advertising as the primary marketing objective in the *introductory phase* of the PLC, followed by building strong brand image and awareness. (This is the same finding as for the total sample).

(ii) Question 16.2

Provide a short description of the appropriate **marketing objective** that you would associate with the **growth phase** of the product life cycle.

Marketing decision-makers of organisations in Gauteng described 21 different marketing objectives to be associated with the growth phase of the product life cycle as depicted in Table 7.42.

Table 7.42 shows that high turnover (no 3) has the highest frequency of **39.31%** followed by increased advertising (no 1) with a total frequency of **20.52%**.

Table 7.42: Marketing objectives in the growth phase of the PLC

Marketing objectives	Frequency					
	Manufacturers		Dealers		Total	
	Number ¹	Percentage	Number ¹	Percentage	Number ¹	Percentage
1. Increased advertising	8	6.84%	16	13.67%	24	20.52%
2. Building brand image	1	0.85%	1	0.85%	2	1.71%
3. High turnover	9	7.69%	37	31.62%	46	39.31%
4. Build relationships	2	1.71%	1	0.85%	3	2.56%
5. Increased advertising and sales promotion ²⁾	1	0.85%	6	5.10%	7	5.95%
6. Sell additional products	0	0.00%	4	3.42%	4	3.42%
7. Increase marketing effort	0	0.00%	2	1.71%	2	1.71%
8. Variety	1	0.85%	2	1.71%	3	2.56%
9. Better service quality	0	0.00%	2	1.71%	2	1.71%
10. Build a strong reputation	0	0.00%	2	1.71%	2	1.71%
11. Be innovative	1	0.85%	0	1.71%	1	0.85%
12. Low price	1	0.85%	3	2.56%	4	3.42%
13. Product quality	0	0.00%	1	0.85%	1	0.85%
14. Increase customer awareness	0	0.00%	3	2.56%	3	2.56%
15. Customer acquisition	0	0.00%	2	1.70%	2	1.70%
16. Entice trial	0	0.00%	2	1.71%	2	1.71%
17. Availability of product	0	0.00%	1	0.85%	1	0.85%
18. Increase sales force	1	0.85%	0	0.85%	1	0.85%
19. Warranties	1	0.85%	4	3.42%	5	4.27%
20. Keep product line simple	0	0.00%	1	0.85%	1	0.85%
21. Product differentiation	1	0.85%	0	0.85%	1	0.85%
TOTAL	27	23.08%	90	76.92%	117	100%

¹ Number of times that these objectives were mentioned by respondents

² Treated separately because of the sales promotion which was included with increased advertising

The main finding is that the total sample described high turnover as the primary marketing objective in the *growth phase* of the PLC, followed by increased advertising.

If the number of frequencies in Table 7.42 are not expressed as a percentage of the total frequency, but per organisational type (27 small manufacturing organisations and 90 small dealer organisations), then the percentages are as follows:

- small manufacturing organisations consider high turnover (no 3) **33.33%** (9/27), increased advertising (no 1) **29.62%** (8/27), and building relationships (no 4) **7.40%** (2/27) as the three main marketing objectives in the growth phase of the product life cycle.

- small dealer organisations chose high turnover (no 3) **41.11%** (37/90), increased advertising (no 1) **17.77%** (16/90) and increased advertising and sales promotion (no 5) **6.66%** (6/90) as the three main marketing objectives in the introductory phase of the product life cycle.

It can be assumed that marketing decision-makers in small manufacturing organisations and small dealer organisations may have confused marketing objectives and marketing strategies in the growth phase of the PLC. They reported marketing objectives such as *increase sales force* that are fact marketing strategies.

The main finding is that marketing decision-makers in small manufacturing organisations identified high turnover as the primary marketing objective in the *growth phase* of the PLC, followed by increase in advertising and the building of relationships.

Another main finding is that marketing decision-makers in small dealer organisations described high turnover as the primary marketing objective in the *growth phase* of the PLC, followed by increase in advertising and the selling of additional products.

(iii) Question 16.3

Provide a short description of the appropriate **marketing objective** that you would associate with the **maturity phase** of the product life cycle.

Marketing decision-makers of organisations in Gauteng mentioned 32 different marketing objectives to be associated with the maturity phase of the product life cycle as depicted in Table 7.43.

Table 7.43 shows that the objective of maximising sales (no 8) has the highest frequency of **19.45%** followed by reduced advertising (no 1) and maximise/high profit (no 2) with a total frequency of **13.27%** respectively.

Table 7.43: Marketing objectives in the maturity phase of the PLC

Marketing objectives	Frequency					
	Manufacturers		Dealers		Total	
	Number ¹	Percentage	Number ¹	Number ¹	Number ¹	Percentage
1. Reduce advertising	2	1.76%	13	11.50%	15	13.27%
2. Maximise/high profit	4	3.52%	11	9.73%	15	13.27%
3. Reduce cost	3	2.65%	5	4.42%	8	7.08%
4. Research and development	3	2.65%	0	0.00%	3	2.65%
5. Quality	1	0.88%	0	0.00%	1	0.88%
6. Add value	2	1.77%	3	2.65%	5	4.42%
7. Brand awareness	0	0.00%	2	1.77%	2	1.77%
8. Maximise sales	3	2.64%	19	16.72%	22	19.45%
9. Reduce prices	0	0.00%	1	0.88%	1	0.88%
10. Customer retention	4	3.54%	9	7.96%	13	11.50%
11. Assessing positioning	0	0.00%	1	0.88%	1	0.88%
12. Evaluating products or lines	1	0.88%	2	1.77%	3	2.65%
13. Reduce promotion	0	0.00%	1	0.88%	1	0.88%
14. Identify key clients	1	0.88%	0	0.00%	1	0.88%
15. Monitor competition	0	0.00%	1	0.88%	1	0.88%
16. Build relationships	0	0.00%	1	0.88%	1	0.88%
17. Benefit from word-of-mouth	0	0.00%	1	0.88%	1	0.88%
18. Maintain standards	1	0.88%	0	0.00%	1	0.88%
19. Customer awareness	0	0.00%	1	0.88%	1	0.88%
20. Increase prices	0	0.00%	2	1.77%	2	1.77%
21. Competitive pricing	0	0.00%	1	0.88%	1	0.88%
22. Offer best possible product	0	0.00%	2	1.77%	2	1.77%
23. Increase promotions	0	0.00%	2	1.77%	2	1.77%
24. Maintain sales levels	0	0.00%	2	1.77%	2	1.77%
25. Availability of products	0	0.00%	1	0.88%	1	0.88%
26. Repeat purchases	0	0.00%	1	0.88%	1	0.88%
27. Warranties	0	0.00%	1	0.88%	1	0.88%
28. Get rid of unprofitable products	0	0.00%	1	0.88%	1	0.88%
29. Additional services	1	0.88%	0	0.00%	1	0.88%
30. Monitor customers	0	0.00%	1	0.88%	1	0.88%
31. Acquire new customer	0	0.00%	1	0.88%	1	0.88%
32. Rely on workmanship	1	0.88%	0	0.00%	1	0.88%
TOTAL	27	23.89%	86	76.11%	113	100.00%

¹ Number of times that these objectives were mentioned by respondents

The main finding is that the total sample indicated maximising sales as the primary marketing objective in the *maturity phase* of the PLC, followed by reduced advertising and maximised/high profit.

If the number of frequencies in Table 7.43 are not expressed as a percentage of the total frequency, but per organisational type (27 small manufacturing organisations and 86 small dealer organisations), then the percentages are as follows:

- small manufacturing organisations considered maximised/high profit (no 2) and customer retention (no 10) **14.81%** (4/27) each, reduced cost (no 3), research and development (no 4) and maximised sales (no 8) **11.11%** (3/27) each as the main marketing objectives in the maturity phase of the product life cycle.
- small dealer organisations identified maximise sales (no 8) **22.09%** (19/86), reduce advertising (no 1) **15.11%** (13/86) and maximised/high profit (no 2) **12.79%** (11/86) as the three main marketing objectives in the maturity phase of the product life cycle.

It can be assumed that marketing decision-makers in small manufacturing organisations and small dealer organisations may have confused marketing objectives and marketing strategies in the maturity phase of the PLC. They reported marketing objectives such as *increase prices* that are in fact marketing strategies.

The main finding is that marketing decision-makers in small manufacturing organisations described maximised/high profit and customer retention as the primary marketing objectives to be associated with the *maturity phase* of the PLC, followed by reduced cost and research and development.

Another main finding is that marketing decision-makers in small dealer organisations described maximised sales as the primary marketing objective to be associated with the *maturity phase* of the PLC, followed by reduced advertising and maximised/high profit.

(iv) Question 16.4

Provide a short description of the appropriate **marketing objective** that you would associate with the **decline phase** of the product life cycle.

Marketing decision-makers of small organisations in Gauteng mentioned 27 different marketing objectives to be associated with the decline phase of the product life cycle as depicted in Table 7.44.

Table 7.44: Marketing objectives in the decline phase of the PLC

Marketing objectives	Frequency					
	Manufacturers		Dealers		Total	
	Number ¹	Percentage	Number ¹	Number ¹	Number ¹	Percentage
1. Phase out the product	1	0.85%	14	11.97%	15	12.82%
2. New product should be available	1	0.85%	7	5.98%	8	6.84%
3. Milk product	1	0.85%	1	0.85%	2	1.71%
4. Reduce prices	13	11.05%	33	28.05%	46	39.10%
5. Sell out old stock	1	0.85%	5	4.27%	6	5.13%
6. Extend product life as long as possible	1	0.85%	1	0.85%	2	1.71%
7. Evaluate product success	1	0.85%	2	1.71%	3	2.56%
8. Increase awareness	0	0.00%	3	2.56%	3	2.56%
9. Maintain relationships with key clients	1	0.85%	1	0.85%	2	1.71%
10. Customer acquisition	0	0.00%	2	1.71%	2	1.71%
11. Reduce advertising	0	0.00%	3	2.56%	3	2.56%
12. Rely on word-of-mouth	0	0.00%	1	0.85%	1	0.85%
13. Maintain standards	1	0.85%	1	0.85%	2	1.71%
14. Increase special promotions	0	0.00%	5	4.27%	5	4.27%
15. Advertise new products	0	0.00%	2	1.71%	2	1.71%
16. Research and development	1	0.85%	1	0.85%	2	1.71%
17. Monitor customer demand	0	0.00%	1	0.85%	1	0.85%
18. Prevent losses	0	0.00%	1	0.85%	1	0.85%
19. Assist loyal customers	0	0.00%	1	0.85%	1	0.85%
20. Rent products out	0	0.00%	1	0.85%	1	0.85%
21. Feed on reputation/use reputation	2	1.71%	1	0.85%	1	2.56%
22. Sell in bulk	0	0.00%	1	0.85%	1	0.85%
23. Quality control	0	0.00%	1	0.85%	1	0.85%
24. New product development	1	0.85%	0	0.00%	1	0.85%
25. Warranties	0	0.00%	1	0.85%	1	0.85%
26. Reduce promotion	0	0.00%	1	0.85%	1	0.85%
27. Increase price	1	0.85%	0	0.00%	1	0.85%
TOTAL	26	22.22%	91	77.78%	117	100.00%

¹ Number of times that these objectives were mentioned by respondents

Marketing decision-makers mentioned reduced prices (no 4) as the primary marketing objective in the decline phase of the PLC with a total frequency of **39.10%** followed by phasing out the product (no 1) with a total frequency of **12.82%** and new product availability (no 2) with a total frequency of **6.84%**.

The main finding is that the total sample described reduced prices as the primary marketing objective to be associated with the *decline phase* of the PLC, followed by the phasing out of the product.

If the number of frequencies in Table 7.44 are not expressed as a percentage of the total frequency, but per organisational type (26 small manufacturing organisations and 91 small dealer organisations), then the percentages are as follows:

- small manufacturing organisations provided reduced prices (no 4) **50%** (13/26) and the use of reputation (no 27) **7.69%** (2/26) as the main marketing objectives in the decline phase of the product life cycle.
- small dealer organisations regarded reduced prices (no 4) **36.26%** (33/91), phasing out the product (no 1) **16.27%** (14/86) and the availability of a new product (no 2) **7.69%** as the three main marketing objectives in the decline phase of the product life cycle.

The main finding is that marketing decision-makers in small manufacturing organisations described reduced prices as the primary marketing objective to be associated with the *decline phase* of the PLC, followed by the feed on/use of reputation.

Another main finding is that marketing decision-makers in small dealer organisations described reduced prices as the primary marketing objective to be associated with the *decline phase* of the PLC, followed by the phasing out of the product.

It can be assumed that marketing decision-makers in small manufacturing organisations and small dealer organisations may have confused marketing objectives and marketing strategies in the decline phase of the PLC. They reported marketing objectives such as *assisting loyal customers and renting out the product* that are indeed marketing strategies.

The results in Tables 7.41 to 7.44 suggest that the respondents may have confused some objectives with marketing strategies.

The main finding is that marketing decision-makers in small manufacturing organisations and small dealer organisations may have confused certain marketing objectives with marketing strategies in the different PLC phases.

From the results in Tables 7.41 to 7.44, the most important primary objectives per organisational type are illustrated in Table 7.45. These primary objectives are cross-tabulated with the results of question 4 as discussed in paragraph 7.4.1(c).

Table 7.45: The primary marketing objectives in the different PLC phases for the organisations per organisational type

Organisational type	Primary marketing objectives in the different PLC phases			
	Intro	Growth	Maturity	Decline
Small manufacturers	<ul style="list-style-type: none"> • Heavy/intensive advertising • Build strong brand image and awareness • Simple product/line 	<ul style="list-style-type: none"> • High turnover • Increase advertising • Build relationships 	<ul style="list-style-type: none"> • Maximise/High profit • Customer retention • Reduce cost • Research and development • Maximise sales 	<ul style="list-style-type: none"> • Use reputation • Reduce prices
Small dealers	<ul style="list-style-type: none"> • Heavy/intensive advertising • Build strong brand image and awareness • High sales 	<ul style="list-style-type: none"> • High turnover • Increase advertising • Sell additional products 	<ul style="list-style-type: none"> • Maximise sales • Reduce advertising • Maximise/high profit 	<ul style="list-style-type: none"> • Reduce prices • Phase out the product • New product availability
	Table 7.41	Table 7.42	Table 7.43	Table 7.44

The marketing objectives listed in Tables 7.41 to 7.44 will be used to compare the marketing objectives provided by the respondents with the marketing objectives provided by Kotler (2000: 316).

When compared to the marketing objectives provided by Kotler (2000: 316) and described in Table 3.5 the primary marketing objectives given by small manufacturers and small dealer organisations are not exactly the same as the theory.

Table 7.46: Comparison between the marketing objectives by Kotler (2000:316) and the marketing objectives provided by the sample

Marketing objectives	PLC phases			
	Introductory phase	Growth phase	Maturity phase	Decline phase
Create product awareness and trial ¹⁾	Maximise market share ¹⁾	Maximise profit while defending current market share ¹⁾	Reduce expenditure and milk the brand ¹⁾	
Heavy/intensive advertising ²⁾ Build strong brand image and awareness ²⁾	High turnover ²⁾ Increased advertising ²⁾	Maximise sales ²⁾ Reduce advertising ²⁾ Maximise/high profit ²⁾	Reduce prices ²⁾ Phase out the product ²⁾	

Note: ¹⁾ = Kotler's theory and ²⁾ = Survey responses

In the introductory phase objectives provided by the sample namely building of a strong brand image and awareness can be related to Kotler's creation of product awareness and trial. The other objective of heavy/intensive advertising may have been interpreted by the respondents as **how** they can create awareness.

It is however suggested that they can be associated with Kotler's marketing objectives in the **growth, maturity** and **decline** phases of the product life cycle.

The main finding is that marketing decision-makers in small manufacturing and small dealer organisations described marketing objectives, in the different phases of the PLC which are relatively similar to the theory, provided by Kotler (2001: 316).

(g) Question 17

What is the likelihood that you will continue using the product life cycle concept in future for (a) general management decision-making and (b) marketing decision-making? ("**1**" indicates very unlikely and "**5**" indicates extremely likely).

The likelihood that marketing decision-makers in organisations will continue using the product life cycle concept for marketing and general management decision-making in future is an important indicator of the utilisation potential and value of the product life cycle concept. Table 7.47 and Table 7.48 will provide an indication of the likelihood that marketing decision-makers in the sample will continue using the product life cycle in future for general management and marketing decision-making purposes respectively.

Table 7.47: Likelihood of continuing with the use of the product life cycle in future for general management decision-making

Extent of influence	Frequency	Percentage	Cumulative frequency	Cumulative percentage
1	0	0.00%	0	0.00%
2	9	9.78%	9	9.78%
3	25	27.18%	34	36.96%
4	32	34.78%	66	71.75%
5	26	28.26%	92	100.00%
TOTAL	N = 92	100%	-	-

Mean score from the total sample = **3.81**

A majority of 63.04% of the marketing decision-makers in organisations in Gauteng indicated an average (a scale value of 3) to high likelihood of the continued use of the product life cycle for general management decision-making in future as depicted in Table 7.47.

This result provides a positive indication that the product life cycle concept has a continuous usage potential among manufacturers and dealers in Gauteng for general management decision-making purposes in the future.

Table 7.48 illustrates the likelihood of the continued use of the product life cycle for marketing decision-making in the future.

A majority of 67.39% of the marketing decision-makers in organisations in Gauteng indicated a high likelihood (scale value of 4 and 5) of continuously

using the product life cycle for marketing decision-making in future as depicted in Table 7.48.

Table 7.48: Likelihood of continuing with the use of the product life cycle in future for marketing decision-making

Extent of influence	Frequency	Percentage	Cumulative frequency	Cumulative percentage
1	0	0.00%	0	0.00%
2	5	5.43%	5	5.43%
3	25	27.18%	30	32.61%
4	34	36.96%	64	69.57%
5	28	30.43%	92	100.00%
TOTAL	N = 92	100	-	-

Mean score from the total sample = **3.92**

As can be deduced from Tables 7.47 and 7.48 there is not a large difference between the mean scores of the likelihood of the continued use of the product life cycle concept for general management decision-making and for marketing decision-making in the future. Table 7.49 will however reveal whether the differences in the mean scores on the future likelihood of using the product life cycle for general and marketing decision purposes are significant or not.

Table 7.49: Significance test of the likelihood of continuing with the use of the product life cycle in future for general management and marketing decision-making

Likelihood of using the PLC for	Frequency	Mean	p-value
V68. general management decision-making	92	3.81	0.0956
V69. marketing decision-making	92	3.92	

The likelihood of the continued use of the product life cycle concept in future is higher for general decision-making than for marketing decision-making as depicted by the mean scores in Table 7.49, - the difference is however very small. The **Wilcoxon t-test statistic** to determine differences between dependent groups was executed and a p-value of 0.0956 resulted. If the decision-rule that a p-value ≤ 0.05 signals a significant difference, then the p-

value of 0.0956 depicted in Table 7.49 shows that the differences in the means scores for the total sample on the likelihood on the continuous use of the product life cycle for general management and marketing decision-making purposes in future is not significant.

The main finding is that there is no significant difference between general management and marketing decision-making with regard to the likelihood of continued future use of the product life cycle.

Table 7.50 discloses possible differences between manufacturers and dealers of the likelihood of the continued use of the product life cycle for general management and marketing decision-making purposes in the future.

Table 7.50: Likelihood of continuing with the use of the product life cycle in future for general management and marketing decision-making per organisational type

Likelihood of using the PLC for	Organisational type						p-value
	Manufacturers			Dealers			
	N	Mean	Standard deviation	N	Mean	Standard deviation	
V68. general management decision-making	21	3.85	0.96	21	3.95	0.86	0.5271
V69. marketing decision-making	71	3.80	0.96	71	3.91	0.90	0.1167

The mean scores of **3.85** and **3.80** as portrayed in Table 7.50 seem to indicate a similar likelihood of the continued use of the product life cycle for general management decision-making in future among manufacturers and dealers. The **Wilcoxon t-test statistic** to determine differences between dependent groups was executed and a p-value of 0.5271 was found. The decision-rule of a p-value ≤ 0.05 was applied for significance. The p-value of 0.5271 depicted in Table 7.50 demonstrates that the differences in the mean scores between manufacturers and dealers on the likelihood of the continued use of the product life cycle for general management purposes in future are not significant.

The main finding is that marketing decision-makers in manufacturing and dealer organisations show no significant differences with regard to the likelihood of continued use of the product life cycle in future for general management decision-making purposes.

Table 7.50 also demonstrates that the differences in the mean scores of manufacturers and dealers on the likelihood of the continued use of the product life cycle for marketing decision-making purposes in future are not significant.

The main finding is that marketing decision-makers in manufacturing and dealer organisations show no significant differences with regard to the likelihood of continued use of the product life cycle in future for marketing decision-making purposes.

Apart from the above-mentioned main finding it is important to cross-tabulate questions 4 and 17. The results on question 4 as discussed in paragraph 7.4.1(a) and the results on question 17 as illustrated in Table 7. 49 will be used to do the cross-tabulation. This cross tabulation result will be illustrated in Table 7.51.

Table 7.51: Likelihood of continuing with the use of the product life cycle in future by organisations with and without a marketing department for general management and marketing decision-making for the total sample

Likelihood of using the PLC for	Mean		p-value
	Organisations with a marketing department or function	Organisations without a marketing department or function	
V68. general management decision-making	3.71	4.03	0.1584
V69. marketing decision-making	3.88	4.00	0.5096

The Mann-Whitney U test to compare the mean scores of variables between two independent groups was executed. If the decision-rule is applied that a p-

value ≤ 0.05 is an indication of a significant difference, then the p-values as shown in Table 7.51 are non-significant.

The main finding is that the likelihood of continuing with the use of the product life cycle concept in future, for general and marketing decision-making, is equally high irrespective whether small manufacturing and small dealer organisations have a marketing department or not.

7.4.4 Section D

Section D was mainly focusing on testing the ability of marketing decision-makers in manufacturer and dealer organisations in Gauteng to match the different marketing characteristics with the various product life cycle phases as provided in the theory by Kotler (2000: 316) and illustrated in Table 3.5. This section furthermore tested the ability of marketing decision-makers in manufacturing and dealer organisations in Gauteng to link the different marketing strategies with the various product life cycle phases provided in the theory by Kotler (2000: 316). The results are aimed at providing information on the ability of marketing decision-makers to apply their knowledge according to existing theory.

(a) Question 18

Match the following characteristics in Column A to the most appropriate phase in Column B by means of a cross next to the word or description in Column A

* The reader is referred to the questionnaire in Appendix 2 where the characteristics are listed.

The main objective with question 18 was to determine whether organisations differ or concur with the theory on marketing characteristics associated with the various product life cycle phases provided by Kotler (2000: 316). Table 7.52 provides a frequency of the total sample (small manufacturers and small dealers).

The total frequency for each characteristic associated with the different PLC phases is reflected in Table 7.52 and the highest frequency of each

characteristic in each phase is accentuated. For example: low sales (no 143 to no 146) is the characteristic with the highest total frequency of 64 in the decline phase.

Table 7.52: Frequency distribution of the total sample with regard to the characteristics in each of the PLC phases

Characteristics	Phases in the PLC per group											
	Total sample (P)				Manufacturers (M)				Dealers (D)			
	I	G	M	D	I	G	M	D	I	G	M	D
143 – 146 Low sales	52	0	24	64	4	0	4	14	38	0	20	50
151 – 154 Increasing sales	32	84	9	0	5	20	2	0	27	64	7	0
199 – 202 Peak sales	9	47	59	1	0	9	8	0	9	38	51	1
159 – 162 Declining sales	2	0	31	78	0	0	4	21	2	0	27	57
171 – 174 High cost per customer	48	14	29	41	12	1	7	8	36	13	22	33
175 – 178 Average cost per customer	18	62	34	4	3	16	5	3	15	36	29	1
155 – 158 Low cost per customer	24	45	45	15	5	6	14	6	19	39	31	9
163 – 166 Negative profits (Losses)	33	2	15	71	11	2	2	16	22	0	13	55
195 – 198 Increasing profits	23	79	25	1	7	19	3	0	16	60	22	1
147 – 150 High profits	21	55	57	4	1	8	15	2	20	47	42	2
187 – 190 Declining profits	3	3	28	70	0	0	5	18	3	3	23	52
167 – 170 Few competitors	50	3	24	60	11	2	8	17	39	1	16	43
191 – 194 Growing number of competitors	53	61	13	5	13	15	3	1	40	46	10	4
179 – 182 Stable number of competitors but beginning to decline	2	7	80	21	0	3	17	5	2	4	63	16
183 – 186 Declining number of competitors	0	4	33	67	0	4	8	1	0	0	25	66

Note: I = Introductory phase, G = Growth phase, M = Maturity phase, D = Decline phase

The total frequencies depicted in Table 7.52 seem to be high but a characteristic could have appeared in more than one PLC phase (see Appendix 2 in the questionnaire).

All the highest frequencies as depicted in Table 7.52 were used to compile Table 7.53 and Table 7.54 indicating the highest frequencies achieved for each characteristic in each PLC phase for the total sample (P), small manufacturers (M), small dealers (D). This result was then compared with Kotler's theory.

Table 7.53 provides a comparison between the responses of the total sample (P) and Kotler's theory.

Table 7.53: Comparison of the total sample's responses of characteristics with the theory (T) in each of the PLC phases

Characteristics		PLC phases			
		Intro phase	Growth phase	Maturity phase	Decline phase
Sales	143 – 146 Low sales	T			X
	151 – 154 Increasing sales		✓		
	199 – 202 Peak sales			✓	
	159 – 162 Declining sales				✓
Cost	171 – 174 High cost per customer	✓			
	175 – 178 Average cost per customer		✓		
	155 – 158 Low cost per customer		X	✓	T
Profits	163 – 166 Negative profits (Losses)	T			X
	195 – 198 Increasing profits		✓		
	147 – 150 High profits			✓	
	187 – 190 Declining profits				✓
Competitors	167 – 170 Few competitors	T			X
	191 – 194 Growing number of competitors		✓		
	179 – 182 Stable number of competitors but beginning to decline			✓	
	183 – 186 Declining number of competitors				✓

Note: ✓ = perfect association of the total sample with the theory on the characteristic in the specific PLC phase
 X = no association of the total sample with the theory on the characteristic in the specific PLC phase
 T = Kotler's theory

It is evident from Table 7.53 that the total sample concurred with 75% ($12 \div 16 \times 100$) of the characteristics in the phases in the product life cycle according to Kotler's (2000: 316) theory.

The respondents had the highest frequency for low sales (no 143 – 146) in the decline phase of the PLC indicated by an (X) in Table 7.53. This can be an indication of possible confusion by the respondents on the difference between low sales (no 143 – 146) and declining sales (no 159 – 162).

The respondents had the highest frequency for negative profits (no 163 – 166) in the decline phase of the PLC indicated by an (X) in Table 7.53. This can also be indicative of a possible confusion by the respondents on the

difference between negative profits/losses (no 163 – 166) and declining profits sales (no 187 – 190).

The respondents had the highest frequency for a few competitors (no 167 – 170) in the decline phase of the PLC indicated by an (X) in Table 7.53. This might imply that the respondents did not distinguish between a few competitors (no 163 – 166) and declining number of competitors (no 183 – 186).

The main finding is that the total sample of small organisations in Gauteng achieved a 75% match with the characteristics in each product life cycle phase as provided by theory (Kotler, 2000: 316).

The concurrence or difference per organisational type's (small manufacturers and small dealers) association with Kotler's (2000: 316) theory on marketing characteristics in each of the product life cycle phases is shown in Table 7.54.

Table 7.54: Comparison, per organisational type, of the characteristics in each of the PLC phases with the theory

Characteristics		Phases in the PLC			
		Intro phase	Growth phase	Maturity phase	Decline phase
Sales	143 – 146 Low sales	T			M D
	151 – 154 Increasing sales		T ^M T ^D		
	199 – 202 Peak sales		M	T ^D	
	159 – 162 Declining sales				T ^M T ^D
Cost	171 – 174 High cost per customer	T ^M T ^D			
	175 – 178 Average cost per customer		T ^M T ^D		
	155 – 158 Low cost per customer		D	T ^M	T
Profits	163 – 166 Negative profits (Losses)	T			M D
	195 – 198 Increasing profits		T ^M T ^D		
	147 – 150 High profits		D	T ^M	
	187 – 190 Declining profits				T ^M T ^D
Competitors	167 – 170 Few competitors	T			M D
	191 – 194 Growing number of competitors		T ^M T ^D		
	179 – 182 Stable number of competitors but beginning to decline			T ^M T ^D	
	183 – 186 Declining number of competitors			M	T ^D

Note: T = Theory as provided by Kotler (2000: 316), T^M = small manufacturers in Gauteng providing a fit with T, T^D = small dealers in Gauteng providing a fit with T, M = small manufacturers and D = small dealers

As illustrated in Table 7.54 small manufacturers (**M**) matched 62.50% ($10 \div 16 \times 100$) characteristics to the appropriate phases in the product life cycle as depicted in Kotler's theory (**T**) indicated by **T^M** in the same PLC phase. Small dealers (**D**) also achieved a 62.50% ($10 \div 16 \times 100$) match of characteristics to the appropriate phases in the product life cycle as depicted in Kotler's theory (**T**) and indicated by a **T^D** in the same PLC phase.

The main findings on the differences between small manufacturing organisations and small dealer organisations with regard to Kotler's characteristics (M with D) are:

(i) Sales

Small manufacturers indicated peak sales in the growth phase while small dealers reported peak sales in the maturity phase.

(ii) Cost

Small manufacturers indicated low cost per customer in the maturity phase while dealers reported low cost per customer in the growth phase.

(iii) Profits

Small manufacturers indicated high profits in the maturity phase while dealers reported high profits in the growth phase.

(iv) Competitors

Small manufacturers indicated declining number of competitors in the maturity phase while dealers reported declining number of competitors in the decline phase.

The main finding is that small manufacturers and small dealers achieved a match success rate of 62.50% with Kotler's (2000: 316) theory on characteristics in each phase of the PLC.

Table 7.55 demonstrates possible differences or similarities between organisations with a marketing department or function and Kotler's theory (**T**). The fit in Table 7.55 is based on the characteristics with the highest reported frequency in that specific PLC phase.

Table 7.55: Association of respondents' perceptions of marketing characteristics with Kotler's theory in each of the PLC phases for the total sample of organisations with a marketing department or function

Characteristics		Phases in the PLC			
		Intro phase	Growth phase	Maturity phase	Decline phase
Sales	Low sales	T			P ^M
	Increasing sales		T P ^M		
	Peak sales			T P ^M	
	Declining sales				T P ^M
Cost	High cost per customer	T			P ^M
	Average cost per customer		T P ^M		
	Low cost per customer		P	T P ^M	T
Profits	Negative profits (Losses)	T			P ^M
	Increasing profits		T P ^M		
	High profits		P ^M	TP	
	Declining profits				T P ^M
Competitors	Few competitors	T			P ^M
	Growing number of competitors		T P ^M		
	Stable number of competitors but beginning to decline			T P ^M	
	Declining number of competitors				T P ^M

Note: T = Theory as provided by Kotler, P^M = Organisations in the total sample with a marketing department

Small manufacturing and dealer organisations with a marketing department reported a 62,50% ($10 \div 16 \times 100$) fit with Kotler's theory (T) depicted in Table 7.55.

The main finding of differences between small manufacturing organisations and small dealer organisations with a marketing department/function and Kotler's characteristics (P^M with T) are:

(i) Sales

Small manufacturers and small dealers with a marketing department reported low sales in the decline phase while Kotler indicated low sales in the introductory phase.

(ii) Cost

Small manufacturers and small dealers with a marketing department reported high cost per customer in the decline phase while Kotler indicated high cost per customer in the introductory phase.

(iii) Profits

Small manufacturers and small dealers with a marketing department reported negative profits in the decline phase while Kotler indicated negative profits in the introductory phase.

Small manufacturers and small dealers with a marketing department reported high profits in the growth phase while Kotler indicated high profits in the maturity phase.

(iv) Competitors

Small manufacturers and small dealers with a marketing department reported few competitors in the decline phase while Kotler indicated few competitors in the introductory phase.

The main finding is that marketing decision-makers in small manufacturing and small dealer organisations with a marketing department provided a relatively good association (62%) with Kotler's theory as far as the characteristics within the different PLC phases are concerned.

Table 7.56 indicates possible differences or similarities per organisational type (with marketing departments or functions) when compared with the characteristics provided by Kotler (2000: 316). The fit in Table 7.56 is based on the allocation of the characteristic with the highest reported frequency to that specific PLC phase.

Manufacturers with a marketing department have a 81.25% ($13 \div 16 \times 100$) fit with Kotler's characteristics as indicated by (M^{MD}) and dealers with a marketing department have a 50% ($8 \div 16 \times 100$) fit indicated by (D^{MD}) in Table 7.56.

Table 7.56: Association of respondents' perceptions of marketing characteristics with Kotler's theory in each of the PLC phases per organisational type for organisations with a marketing department or function

Characteristics		Phases in the PLC					
		Intro phase		Growth phase	Maturity phase	Decline phase	
Sales	Low sales	T	M			M ^{MD}	D ^{MD}
	Increasing sales			M ^{MD}	D ^{MD}		
	Peak sales			D ^{MD}	T	M ^{MD}	
	Decline sales						M ^{MD}
Cost	High cost per customer	T	M ^{MD}				D ^{MD}
	Average cost per customer			M ^{MD}	D ^{MD}		
	Low cost per customer			D ^{MD}	T	M ^{MD}	T
Profits	Negative profits (Losses)	T				M ^{MD}	D ^{MD}
	Increasing profits			M ^{MD}	D ^{MD}		M ^{MD}
	High profits			D ^{MD}	T	M ^{MD}	
	Decline profits						M ^{MD}
Competitors	Few competitors	T				M ^{MD}	D ^{MD}
	Growing number of competitors			M ^{MD}	D ^{MD}		
	Stable number of competitors but beginning to decline					M ^{MD}	D ^{MD}
	Declining number of competitors						M ^{MD}

Note: T = Theory as provided by Kotler (2000: 316), M^{MD} = Small manufacturing organisations with a marketing department, D^{MD} = Small dealer organisations with a marketing department

The main findings on differences between small manufacturing organisations and small dealer organisations with a marketing department/function and Kotler's characteristics (M^{MD} and D^{MD} with T) are:

(i) Sales

Small manufacturers and small dealers with a marketing department reported low sales in the decline phase while Kotler indicated low sales in the introductory phase.

(ii) Cost

- Small dealers with a marketing department reported high cost per

customer in the decline phase while Kotler indicated high cost per customer in the introductory phase.

- Small dealers with a marketing department reported low cost per customer in the growth phase while Kotler indicated low cost per customer in the maturity phase.
- Small dealers and manufacturers with a marketing department reported low cost per customer in the growth and maturity phases respectively, while Kotler indicated low cost per customer in the decline phase.

(iii) Profits

- Small manufacturers and small dealers with a marketing department reported negative profits in the decline phase while Kotler indicated negative profits in the introductory phase.
- Small dealers with a marketing department reported high profits in the growth phase while Kotler indicated high profits in the maturity phase.

(iv) Competitors

Small manufacturers and small dealers with a marketing department reported few competitors in the decline phase while Kotler indicated few competitors in the introductory phase.

The main finding is that marketing decision-makers in manufacturing organisations with a marketing department or function provided a better fit with Kotler's theory on the characteristics within the different PLC phases than dealer organisations with a marketing department or function.

(b) Question 19

How **important** is each of the following aspects when you associate them with the four phases of the product life cycle. (*"1" would indicate that the aspect is not important at all and "5" indicates that the aspect is extremely important*).

* The reader is referred to the questionnaire in Appendix 2 where the aspects are listed, inter alia with regard to product, price, place and promotion

Marketing decision-makers in manufacturing and dealer organisations had to rate the importance of marketing mix related aspects of product, price, place and promotion in each product life cycle phase. The importance of the

marketing mix related aspects regarding the traditional marketing mix instruments of product, price, place and promotion in the various product life cycle phases are illustrated in Tables 7.58, 7.59, 7.60 and 7.61 respectively.

Before these tables are provided it is necessary to show the mean scores on all four marketing mix instruments in total for all the aspects tested. These mean scores are depicted in Table 7.57.

Table 7.57: Importance of the traditional marketing mix related aspects

Marketing mix instrument	Mean
Product (aspects no 203 – 218)	3.96
Price (aspects no 219 – 234)	3.31
Place (aspects no 235 – 250)	3.25
Promotion (aspects no 251 – 266)	3.85

It is evident from Table 7.57 that product (no 203 – 218) is regarded as the most important traditional marketing mix instrument (according to the marketing mix related aspects) by the total sample with a mean score of **3.96**. The mean scores on the other three marketing mix instruments are lower than 4 but higher than the average scale value of 3.

Table 7.58 provides an exposition of the importance of the marketing mix aspects in the introductory phase of the product life cycle.

Table 7.58 indicates that the respondents rated product features and options (no 211) to be the most important product aspect in the introductory phase of the PLC with a mean score of **4.72**, a top-box score of **73.56%**. Low price (no 227) achieved a mean score of **3.30**. A large number of outlets (no 239) with a mean score of **4.03** and advertising (no 255) with a mean score of **4.58** are regarded as the most important aspects of price, place and promotion respectively.

Table 7.58: The importance of marketing mix (product, price, place and promotion) related aspects in the introductory phase of the PLC

Marketing mix instrument	Introductory phase					
	Aspects	Responses	Mean	Top-box score	Low-box score	Standard deviation
Product	203. Quality	88	4.50	63.64%	2.27%	0.75
	207. Brand name	87	4.67	72.41%	0.00%	0.56
	211. Features and options	87	4.72	73.56%	0.00%	0.47
	215. Warranties	86	4.54	61.63%	0.00%	0.62
Price	219. High price	88	2.28	13.64%	32.95%	1.32
	223. Discounts	88	2.78	18.18%	19.32%	1.32
	227. Low price	88	3.30	25.00%	9.09%	1.24
	231. Payment terms	88	3.29	18.18%	12.50%	1.23
Place	235. Location of premises	88	3.97	52.27%	7.95%	1.31
	239. Large number of outlets (<i>intensive</i>)	87	4.03	48.28%	2.30%	1.13
	243. Small number of outlets (<i>selective</i>)	88	3.98	45.45%	2.27%	1.15
	247. Specialised outlets (<i>exclusive</i>)	88	3.94	45.45%	3.41%	1.21
Promotion	251. Sales promotion	88	4.39	53.41%	0.00%	0.76
	255. Advertising	87	4.58	66.67%	1.15%	0.65
	259. Personal selling	88	3.94	38.64%	5.68%	0.97
	263. Publicity / PR	88	3.45	36.36%	5.68%	1.38

The main finding is that the respondents regarded product features and options as the most important marketing mix related aspect in the introductory phase of the PLC.

Another main finding is that respondents regarded product features and options as the most important product aspect, low price as the most important price aspect, intensive distribution as the most important place aspect and advertising as the most important promotion aspect in the introductory phase of PLC.

The low mean scores on price aspects (no's 219, 223, 227 and 231) together with the high low-box scores are indicating that price is regarded by the respondents as the least important marketing mix instrument in the introductory phase.

The main finding is that the respondents regarded price as the least important marketing mix instrument in the introductory phase.

Table 7.59 provides an exposition of the importance of the marketing mix aspects by small manufacturers and small dealers in the growth phase of the product life cycle.

Table 7.59 indicates that the total sample rated product features and options (no 212) as the most important product aspect in the growth phase of the PLC with a mean score of **4.29**, a top-box score of **52.87%** and a low box score of **2.30%**.

Payment terms (no 232) with a mean score of **4.00**, specialised outlets (no 248) with a mean score of **3.34** and advertising (no 256) with a mean score of **4.51** are regarded as the most important aspects of price, place and promotion respectively. The advertising aspect (no 256) achieved the highest top-box score of **57.47%** and the highest mean score of **4.51** when compared to all the other aspects.

Table 7.59: The importance of marketing mix (product, price, place and promotion) related aspects in the growth phase of the PLC

Marketing mix instrument	Growth phase					
	Aspects	Responses	Mean	Top-box score	Low-box score	Standard deviation
Product	204. Quality	88	4.04	51.14%	1.14%	1.15
	208. Brand name	87	4.25	51.72%	1.15%	0.94
	212. Features and options	87	4.29	52.87%	2.30%	0.91
	216. Warranties	87	2.90	54.02%	1.15%	0.95
Price	220. High price	88	2.89	18.18%	19.32%	1.38
	224. Discounts	88	3.06	15.91%	7.95%	1.22
	228. Low price	88	3.82	18.18%	0.00%	0.84
	232. Payment terms	88	4.00	32.95%	1.14%	0.92
Place	236. Location of premises	88	3.04	31.82%	28.41%	1.66
	240. Large number of outlets (<i>intensive</i>)	88	3.18	30.68%	19.32%	1.55
	244. Small number of outlets (<i>selective</i>)	88	3.09	25.00%	19.32%	1.46
	248. Specialised outlets (<i>exclusive</i>)	87	3.34	17.24%	20.69%	1.38
Promotion	252. Sales promotion	88	4.31	47.73%	0.00%	0.75
	256. Advertising	87	4.51	57.47%	1.15%	0.62
	260. Personal selling	88	3.72	30.68%	1.14%	1.05
	264. Publicity / PR	88	3.12	28.41%	11.36%	1.43

The main finding is that the respondents regarded advertising as the most important marketing mix related aspect in the growth phase of the PLC.

Another main finding is that respondents regarded product features and options as the most important product aspect, payment terms as the most important price aspect, exclusive distribution as the most important place aspect and advertising as the most important promotion aspect in the growth phase of PLC.

Table 7.60 illustrates the importance of the marketing mix aspects to small manufacturers and small dealers in the maturity phase of the product life

cycle. It can be deduced from Table 7.60 that the total sample regards product features and options (no 213) as the most important product aspect in the maturity phase of the PLC with a mean score of **3.85**, a top-box score of **41.38%** and a low-box score of **10.34%**.

Table 7.60: The importance of marketing mix (product, price, place and promotion) related aspects in the maturity phase of the PLC

Marketing mix instrument	Maturity phase					
	Aspects	Responses	Mean	Top-box score	Low-box score	Standard deviation
Product	205. Quality	88	3.46	38.64%	9.09%	1.44
	209. Brand name	87	3.63	35.63%	10.34%	1.33
	213. Features and options	87	3.85	41.38%	10.34%	1.28
	217. Warranties	86	3.75	36.05%	8.14%	1.23
Price	221. High price	88	3.86	31.85%	6.82%	1.15
	225. Discounts	88	3.56	21.59%	5.68%	1.12
	229. Low price	88	3.20	13.64%	9.09%	1.12
	233. Payment terms	88	3.31	27.27%	6.82%	1.28
Place	237. Location of premises	88	2.96	13.64%	13.64%	1.24
	241. Large number of outlets (<i>intensive</i>)	86	2.87	11.63%	13.95%	1.23
	245. Small number of outlets (<i>selective</i>)	87	3.14	14.94%	10.34%	1.16
	249. Specialised outlets (<i>exclusive</i>)	88	3.20	14.77%	12.50%	1.23
Promotion	253. Sales promotion	88	4.26	48.86%	2.27%	0.92
	257. Advertising	87	4.34	51.72%	2.30%	0.84
	261. Personal selling	88	3.90	31.82%	2.27%	0.99
	265. Publicity / PR	88	3.76	31.82%	6.82%	1.19

High price (no 221) with a mean score of **3.86**, specialised outlets (no 249) with a mean score of **3.20** and advertising (no 257) with a mean score of **4.34** are regarded as the most important aspects of price, place and promotion respectively.

The main finding is that the respondents regarded advertising as the most important aspect in the maturity phase of the PLC.

Another main finding is that respondents regarded product features and options as the most important product aspect, high price as the most important price aspect, exclusive distribution as the most important place aspect and advertising as the most important promotion aspect in the maturity phase of PLC.

Table 7.61 provides the results of the importance of the marketing mix aspects by small manufacturers and small dealers in the decline phase of the product life cycle.

Table 7.61: The importance of marketing mix (product, price, place and promotion) related aspects in the decline phase of the PLC

Marketing mix instrument	Decline phase					
	Aspects	Responses	Mean	Top-box score	Low-box score	Standard deviation
Product	206. Quality	88	3.42	43.18%	19.32%	1.62
	210. Brand name	87	3.70	41.38%	11.49%	1.38
	214. Features and options	87	3.89	36.78%	10.34%	1.23
	218. Warranties	86	3.89	37.21%	9.30%	1.22
Price	222. High price	88	3.20	29.55%	17.05%	1.50
	226. Discounts	88	3.40	26.14%	11.36%	1.34
	230. Low price	87	3.66	28.74%	10.34%	1.21
	234. Payment terms	87	3.60	28.74%	9.20%	1.23
Place	238. Location of premises	87	2.43	19.54%	39.08%	1.53
	242. Large number of outlets (<i>intensive</i>)	86	2.63	18.60%	29.07%	1.47
	246. Small number of outlets (<i>selective</i>)	86	3.06	23.26%	19.77%	1.42
	250. Specialised number of outlets (<i>exclusive</i>)	87	3.16	26.44%	21.84%	1.48
Promotion	254. Sales promotion	88	3.45	31.82%	7.95%	1.34
	258. Advertising	88	3.61	37.50%	9.09%	1.35
	262. Personal selling	88	3.27	23.86%	7.95%	1.26
	266. Publicity / PR	88	3.04	25.00%	14.77%	1.42

Table 7.61 indicates that the respondents rated product features and options (no 214) and warranties (no 218) as the most important product aspects in the

decline phase of the PLC both with a mean score of **3.89** each and a top-box score of **36.78%** and **37.21%** respectively.

Low-box scores of **10.34%** and **9.30%** respectively for product features and options (no 214) and warranties (no 218) were recorded in the decline phase of the product life cycle. Low price (no 230) with a mean score of **3.66**, specialised outlets (no 250) with a mean score of **3.16** and advertising (no 258) with a mean score of **3.61** are regarded as the most important aspects of price, place and promotion respectively.

The quality aspect (no 206) achieved the highest top-box score of **43.18%** compared to warranties with a top-box score of **37.21%**. These two aspects may be indicative of the fact that respondents feel that they still have to maintain their standards to customers when a product is in the decline phase of the PLC.

The main finding is that the respondents regarded product features and options as well as warranties as the most important aspects in the decline phase of the PLC.

Another main finding is that respondents regarded product features and options and warranties as the most important product aspect, low price as the most important price aspect, exclusive distribution as the most important place aspect and advertising as the most important promotion aspect in the decline phase of PLC.

The standard deviations depicted in Table 7.61 are indicative of relative equal homogeneity on the importance aspects pertaining to product, price, place and promotion.

The different mean scores on the four marketing mix instruments that typify the importance of marketing mix instruments in the different PLC phases for the total sample are provided in Table 7.62.

Table 7.62: The importance of the marketing mix instruments in the different PLC phases

Marketing mix instrument	PLC phase	Mean	Standard deviation
Product	Introductory	4.60	0.38
	Growth	3.87	0.85
	Maturity	3.67	0.78
	Decline	3.72	0.77
Price	Introductory	2.91	0.74
	Growth	3.44	0.68
	Maturity	3.48	0.58
	Decline	3.46	0.58
Place	Introductory	3.98	0.85
	Growth	3.16	0.87
	Maturity	3.04	0.87
	Decline	2.82	0.87
Promotion	Introductory	4.09	0.78
	Growth	3.91	0.72
	Maturity	4.06	0.83
	Decline	3.34	1.05

The mean values depicted in Table 7.62 are indicative of the high importance placed on all the marketing mix instruments in the PLC phases except for price (**2.91**) in the introductory phase and place (**2.82**) in the decline phase.

The main finding is that marketing decision-makers in the sample attached a very high importance to the four traditional marketing mix instruments across all the PLC phases except for price in the introductory phase and place in the decline phase (price and place with mean values lower than 3).

When the mean scores illustrated in Table 7.62 on the marketing mix instruments are compared per PLC phase then product is the most important marketing mix instrument in the introductory phase, promotion is the most important marketing mix instrument in the growth and maturity phases, while product is the most important marketing mix instrument in the decline phase.

Another main finding is that marketing decision-makers in the sample regarded promotion as the most important marketing mix instrument in

both the growth and maturity phases, while product is regarded as the most important marketing mix instrument in the introductory and decline phases.

Table 7.63 illustrates the importance of the different marketing mix instruments in each of the PLC phases per organisational group (manufacturers and dealers).

Table 7.63: The importance of the marketing mix instrument elements in the different PLC phases per organisational type

Marketing mix instrument	PLC phase	Organisational type			
		Manufacturers		Dealers	
		Mean	Standard deviation	Mean	Standard deviation
Product	Introductory	4.80	0.18	4.40	0.39
	Growth	3.82	0.76	3.92	0.87
	Maturity	4.13	0.67	3.21	0.81
	Decline	4.11	0.69	3.33	0.80
Price	Introductory	2.84	0.69	2.98	0.75
	Growth	3.02	0.43	3.86	0.74
	Maturity	3.45	0.39	3.51	0.63
	Decline	3.58	0.30	3.34	0.64
Place	Introductory	3.77	0.93	3.92	0.80
	Growth	3.44	0.85	2.88	0.86
	Maturity	2.67	0.98	3.41	0.82
	Decline	2.64	1.00	3.00	0.82
Promotion	Introductory	4.02	0.68	4.16	0.80
	Growth	3.80	0.84	4.02	0.67
	Maturity	4.05	0.72	4.07	0.84
	Decline	3.04	0.90	3.64	1.08

Product is most important to both manufacturers (**4.80**) and dealers (**4.40**) in the introductory phase of the PLC. **Price** is most important to manufacturers (**3.58**) in the decline phase and to dealers (**3.86**) in the growth phase. **Place** is most important to both manufacturers (**3.77**) and dealers (**3.92**) in the introductory phase. **Promotion** is the most important marketing mix aspect for manufacturers (**4.05**) in the maturity phase and to dealers (**4.16**) in the introductory phase.

The main finding is that product and place are most important to both small manufacturers and small dealers in the introductory phase of the PLC while place is most important in the introductory phase.

Another main finding is that small manufacturers regard price as most important in the decline phase while small dealers regard price as most important in the growth phase of the PLC.

The last main finding from Table 7.63 is that small manufacturers regard promotion as the most important in the maturity phase while small dealers regard price as mostly important in the introductory phase.

Table 7.64 reveals whether there are significant differences between the mean values of the marketing mix instruments in the different PLC phases.

Table 7.64: Significance test on the importance of the marketing mix instruments in the different PLC phases

PLC phases	Marketing mix instruments							
	Product		Price		Place		Promotion	
	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation
Introductory phase	4.60¹	0.38	2.91	0.74	3.98	0.85	4.09	0.782
Growth phase	3.87	0.85	3.44	0.68	3.16	0.87	3.91	0.72
Maturity phase	3.67	0.78	3.48	0.58	3.04²	0.87	4.06	0.83
Decline phase	3.72	0.77	3.46³	0.58	2.82	0.87	3.34	1.05

Note: Significant differences on mean values indicated by different superscripts ¹⁾ or ²⁾ or ³⁾ in the different PLC phases ($p \leq 0.05$)

- 1) Product differs significantly from price, place and promotion in the introductory phase.
- 2) Place differs significantly from product, price and promotion in the maturity phase.
- 3) Price differs significantly from product, place and promotion in the decline phase.

The Friedman's two-way analysis of variance for non-descriptive statistics was used to compare the mean scores on the importance of the different marketing mix instruments in the different marketing mix phases. See Appendix 4 for more detail on non-parametric statistics and the Friedman two-way analysis of variance.

The test for significant differences in Table 7.64 illustrates significant differences between the marketing mix instruments in the introductory, maturity and decline phases.

Product with a mean score of **4.60** is regarded by the sample as the most important marketing mix instrument in the *introductory phase* of the product life cycle. The importance of product as a marketing mix instrument in the introductory phase differs significantly from the importance of the price, place and promotion as indicated by the different subscripts ¹⁾ or ²⁾ or ³⁾ in Table 7.64.

Although all the mean values of all the marketing mix instruments in the introductory phase are high, the significance test may emphasise the importance of product in the introductory phase.

Promotion with a mean score of **3.91** is regarded by the sample as the most important marketing mix instrument in the *growth phase* of the product life cycle and there are no significant differences between the four marketing mix instruments in this PLC phase. This signifies that all the marketing mix instruments are important when a product is in the growth phase of the PLC.

Promotion with a mean score of **4.06** is regarded by the sample as the most important marketing mix instrument in the *maturity phase* of the product life cycle. The importance of place as a marketing mix instrument in the maturity phase differs significantly from the importance of product, price and promotion as indicated by the different subscripts in Table 7.64. Although all the marketing mix instruments are relatively important in the maturity phase this result emphasises the importance of product in the growth phase.

Product with a mean score of **3.72** is regarded by the sample as the most important marketing mix instrument in the *decline phase* of the product life cycle. The importance of price as a marketing mix instrument in the decline phase differs significantly from the importance of product, place and promotion as indicated by the different subscripts in Table 7.64.

Although all the marketing mix instruments are relatively important in the decline phase this result may stress the importance of price when a product is phased out.

The main finding is that product is regarded by the sample as the most important marketing mix instrument in the introductory phase and promotion as the most important marketing mix instrument in the growth phase.

Table 7.65 will summarise the most important marketing mix related aspects based on the highest mean value per PLC phase as obtained from Tables 7.32 to 7.35 (question 15) and Tables to 7.58 to 7.61 (question 19).

Table 7.65: Importance of marketing mix related aspects

Marketing mix instrument	PLC phases			
	Introductory phase	Growth phase	Maturity phase	Decline phase
Product	Product features and options (no 211)	Product features and options (no 212)	Product features and options (no 213)	Product features and options (no 214) & Warranties (no 218)
Price	Low price (no 227)	Payment terms (no 232)	High price (no 221)	Low price (no 230)
Place	Intensive distribution (no 239)	Exclusive distribution (no 248)	Exclusive distribution (no 249)	Exclusive distribution (no 250)
Promotion	Advertising (no 255)	Advertising (no 256)	Advertising (no 257)	Advertising (no 258)
People	Incentives to personnel (no 81)	Incentives to personnel (no 82)	Incentives to personnel (no 83)	Incentives to personnel (no 84)
Processes	Policies and procedures (no 105)	Complaints handling (no 98)	Complaints handling (no 99)	Toll free number (no 104)
Physical evidence	Organisation's name (no 113) Organisation's logo (no 117)	Organisation's logo (no 118) Organisation's name (no 114)	Organisation's logo (no 119) Organisation's name (no 115)	Organisation's logo (no 120) Organisation's name (no 116)
	Table 7.32	Table 7.33	Table 7.34	Table 7.35

It is evident from Table 7.65 that the marketing mix related aspects are slightly different across all PLC phases for price, place and processes but more uniform for product, promotion, people and physical evidence.

(c) Importance of marketing mix instruments

Table 7.66 is the combined results of Table 7.37 (the expanded marketing mix) and Table 7.57 (the traditional marketing mix) and illustrates the importance of all seven marketing mix instruments.

Table 7.66: Importance of marketing mix instruments

Marketing mix instrument	Mean	p-value
Product (aspects no 203 – 218)	3.96	0.010
Price (aspects no 219 – 234)	3.31	0.000
Place (aspects no 235 – 250)	3.25	0.004
Promotion (aspects no 251 – 266)	3.85	0.000
People (aspects no 77 – 92)	4.36	0.003
Processes (aspects no 93 – 108)	3.74	0.248
Physical evidence (aspects no 109 – 124)	4.07	0.212

It can be deduced from Table 7.66 that the sample regarded all the marketing mix instruments as important based on the above average mean scores.

A Friedman's two ANOVA was employed to determine whether the importance (mean values) of the different marketing mix instruments are significant or not. As illustrated in Table 7.66 there are significant differences in the importance of product (**0.010**), price (**0.000**), place (**0.004**), promotion (**0.000**) and people (**0.003**), as the p-values are ≤ 0.05 . The differences in the mean values on processes (**0.248**) and physical evidence (**0.212**) are not significant as indicated by a p-value ≥ 0.05 .

The significant differences ($p \leq 0.05$) on product, price, place, promotion and people as depicted in Table 7.66 can be indicative of the difference in importance of each marketing mix instrument in the different PLC phases. The non-significant difference ($p \geq 0.05$) linked to processes and physical evidence can be an indication of an equal importance of these two marketing mix instruments across all four phases of the PLC. People can be regarded as a more important marketing mix instrument when compared to processes and physical evidence.

Table 7.67: Importance of marketing mix instruments in the different PLC phases

Marketing mix instrument	PLC phases				Order of importance
	Intro	Growth	Maturity	Decline	
Product	✓			✓	3
Promotion		✓	✓		4
Place					7
Price					6
Processes		✓			5
People			✓	✓	1
Physical evidence	✓				2
Table 7.38 and Table 7.62					Table 7.66

As depicted by the total in Table 7.67 people is regarded as the most important marketing mix instrument followed by physical evidence and product, promotion, processes, price and place.

The main finding is that people is regarded as the most important marketing mix instrument followed by physical evidence, product, promotion, processes, price and place.

It is revealed in Table 6.67 that two of the expanded marketing mix instruments, namely people and physical evidence are the highest in importance.

The main finding is that two of the expanded marketing mix instruments have the highest importance (people and physical evidence).

Table 7.67 further indicates that product and physical evidence are the most important marketing mix instruments in the introductory phase, promotion and processes are the most important in the growth phase, promotion and people are most important in the maturity phase and product and people are most important in the decline phase.

The main finding is that marketing decision-makers in small manufacturing and small dealer organisations regard product and physical evidence as the most important marketing mix instruments in the introductory phase of the PLC.

Another main finding is that marketing decision-makers in small manufacturing and small dealer organisations regard promotion and processes as the most important marketing mix instruments in the growth phase of the PLC.

Another main finding is that marketing decision-makers in small manufacturing and small dealer organisations regard promotion and people as the most important marketing mix instruments in the maturity phase of the PLC.

The last main finding from Table 7.67 is that marketing decision-makers in small manufacturing and small dealer organisations regard product and people as the most important marketing mix instruments in the decline phase of the PLC.

(d) Question 20

Link the following strategies in Column A to the most appropriate phase in Column B by means of a cross next to the strategy described in Column A.

* The reader is referred to the questionnaire in Appendix 2 where the strategies are listed.

Marketing decision-makers in manufacturing and dealer organisations were given the opportunity to link the strategies in the different product life cycle phases to the strategies provided in the theory (Kotler: 2000: 316). Table 7.68 illustrates the linkage with theory for the sample and per organisational type. The marketing strategies with the highest frequencies in each phase of the product life cycle are highlighted in Table 7.68.

Table 7.68: Frequency distribution of the sample in linking the theory on the marketing strategies in each of the PLC phases

Marketing strategies	Product life cycle phases															
	Introductory phase				Growth phase				Maturity phase				Decline phase			
	T	M	D	P	T	M	D	P	T	M	D	P	T	M	D	P
V70. Diversify brands and models		4	10	14		2	15	17	✓	10	35	45		5	11	16
V71. Offer a basic product	✓	15	48	63		4	9	13		1	10	11		1	4	5
V72. Phasing out weak products		0	0	0		0	1	1		7	21	28	✓	14	49	63
V73. Offer product extensions, service and warranties		1	7	8		2	4	6	✓	11	25	36		7	34	41
V74. Cut prices		5	10	15		4	6	10		7	28	35	✓	5	27	32
V75. Charge a cost plus price	✓	9	9	18		5	18	23		5	37	42		2	7	9
V76. Set a price to match or better the prices of competitors		11	20	31		7	20	27	✓	2	31	33		1	0	1
V77. Set a price to penetrate the market		21	58	79	✓	0	12	21		0	1	1			0	0
V78. Build awareness and interest in the mass market through advertising		18	43	61	✓	3	24	27		0	3	3		0	1	1
V79. Reduce the advertising level needed to retain hard core loyal customers		2	0	2		1	1	2		16	56	72	✓	2	14	16
V80. Build product awareness among early adopters	✓	20	50	70		1	18	19		0	2	2		0	1	1
V81. Stress brand differences and benefits		10	21	31		4	15	19	✓	6	29	35		1	6	7
V82. Increase and encourage brand switching		9	20	29		5	17	22	✓	6	28	34		1	5	6
V83. Reduce sales promotion to the minimum level		0	1	1		0	1	1		5	27	32	✓	16	42	58
V84. Use heavy sales promotion to entice trial	✓	9	25	34		12	36	48		0	8	8		0	2	2
V85. Reduce sales promotion to take advantage of a heavy consumer demand		0	0	0	✓	1	9	10		17	54	71		3	8	11
V86. Build intensive distribution		16	52	68	✓	5	16	21		0	2	2		0	0	0
V87. Build selective distribution	✓	1	6	7		0	4	4		10	19	29		10	42	52
V88. Go selective and phase out all unprofitable outlets		1	0	1		0	1	1		8	12	20	✓	12	58	70
V89. Build more intensive distribution		2	14	16		19	48	67	✓	0	9	9		0	0	0

Note: T ✓ = Appropriate marketing strategy according to Kotler's theory in the different PLC phases, M = Small manufacturers, D = Small dealers, P = Total sample

Only the highest frequency of the total sample's responses (P) in Table 7.68 will be discussed because the frequencies per organisational type indicate the same importance ratio.

The main deductions from Table 7.68 are the following:

(i) Introductory phase

The highest frequencies that were mentioned are:

- Set a price to penetrate the market (V77)
- Build product awareness among early adopters (V80)
- Build intensive distribution (V86)
- Offer a basic product (V71)
- Build awareness and interest in the mass market through advertising (V78)

(ii) Growth phase

The highest frequencies that were mentioned are:

- Build more intensive distribution (V89)
- Use heavy sales promotion to entice trial (V84)
- Build awareness and interest in the mass market through advertising (V78)
- Increase and encourage brand switching (V82)
- Set a price to penetrate the market (V77)

(iii) Maturity phase

The highest frequencies that were mentioned are:

- Reduce advertising level needed to retain hard core loyal customers (V79)
- Reduce sales promotion to take advantage of a heavy consumer demand (V85)
- Diversify brands and models (V70)
- Charge a cost plus price (V75)

(iv) Decline phase

The highest frequencies that were mentioned are:

- Go selective and phase out all unprofitable outlets (V88)
- Phasing out weak products (V72)
- Reduce sales promotion to the minimum level (V83)
- Build selective distribution (V87)
- Offer product extensions, service and warranties (V73)

The responses on the strategies within the different PLC phases in Table 7.68 are shown in Table 7.69, which will enable one to calculate a linkage or fit of the total sample.

Table 7.69 illustrates the comparison between the sample and Kotler's theory.

Table 7.69: Comparison of the total sample response of marketing strategies with the theory in each of the PLC phases

Marketing mix instrument	Strategies	PLC phases			
		Intro phase	Growth phase	Maturity phase	Decline phase
Product (V70 – V73)	V 70. Diversify brands and models			✓	
	V 71. Offer a basic product	✓			
	V 72. Phasing out weak products				✓
	V 73. Offer product extensions, service and warranties		T		✗
Price (V74 – V77)	V74. Cut prices			✗	T
	V75. Charge a cost plus price	T		✗	
	V76. Set a price to match or better the prices of competitors			✓	
	V77. Set a price to penetrate the market	✗	T		
Advertising (V78 – V81)	V78. Build awareness and interest in the mass market through advertising	✗	T		
	V79. Reduce the advertising level needed to retain hard core loyal customers			✗	T
	V80. Build product awareness among early adopters	✓			
	V81. Stress brand differences and benefits			✓	
Sales Promotion (V82 – V85)	V82. Increase and encourage brand switching			✓	
	V83. Reduce sales promotion to the minimum level				✓
	V84. Use heavy sales promotion to entice trial	T	✗		
	V85. Reduce sales promotion to take advantage of a heavy consumer demand		T	✗	
Distribution (V86 – V89)	V86. Build intensive distribution	✗	T		
	V87. Build selective distribution	T			✗
	V88. Go selective and phase out all unprofitable outlets				✓
	V89. Build more intensive distribution		✗	T	

Note: ✓ = perfect association/agreement of the total sample with the theory on the marketing strategies in the specific PLC phase, ✗ = no association of the total sample with the theory on the marketing strategies in the specific PLC phase and T = Kotler's theory

Table 7.69 indicates that the sample generated a linkage success rate of 45% ($9 \div 20 \times 100$) as indicated by (✓). The sample achieved the best linkage with the strategies on product (V70 to V73) of 75% ($3 \div 4 \times 100$) and the weakest linkage of 25% ($1 \div 4 \times 100$) with strategies on price (V74 to V 77) and distribution (V86 to V 89).

The main finding is that the total sample provided a 45% linkage with Kotler's theory on marketing strategies in each PLC phase.

Another main finding is that the total sample showed the best linkage with the strategies on product (75%).

The last main finding from Table 7.69 is that the total sample showed the weakest linkage with price strategies (25%) and distribution strategies (25%).

Table 7.70 illustrates the linkage per organisational type – small manufacturers (**M**) and small dealers (**D**) with Kotler's theory (**T**).

The linkage of the different groups (small manufacturers and small dealers), highlighted as **MD** in Table 7.70 with the theory (**T**) was generated by means of assigning the strategy variable (V) with the highest frequency to the appropriate PLC phase.

Table 7.70: Linkage of strategies to the appropriate PLC phases per organisational type

Marketing mix instrument	Strategies	PLC phases			
		Intro phase	Growth phase	Maturity phase	Decline phase
Product (V70 – V73)	V 70. Diversify brands and models			T M D	
	V 71. Offer a basic product	T M D			
	V 72. Phasing out weak products				T M D
	V 73. Offer product extensions, service and warranties		T	M	D
Price (V74 – V77)	V74. Cut prices			M D	T
	V75. Charge a cost plus price	T M		D	
	V76. Set a price to match or better the prices of competitors	M	*D	T *D	
	V77. Set a price to penetrate the market	M D	T		
Advertising (V78 – V81)	V78. Build awareness and interest in the mass market through advertising	M D	T		
	V79. Reduce the advertising level needed to retain hard core loyal customers			M D	T
	V80. Build product awareness among early adopters	T M D			
	V81. Stress brand differences and benefits	M		T D	
Sales Promotion (V82 – V85)	V82. Increase and encourage brand switching	M		T D	
	V83. Reduce sales promotion to the minimum level				T M D
	V84. Use heavy sales promotion to entice trial	T	M D		
	V85. Reduce sales promotion to take advantage of a heavy consumer demand		T	M D	
Distribution (V86 – V89)	V86. Build intensive distribution	M D	T		
	V87. Build selective distribution	T	*M	*M	D
	V88. Go selective and phase out all unprofitable outlets				T M D
	V89. Build more intensive distribution		M D	T	

Note: T = Theory as provided by Kotler (2000: 316), M = small manufacturers in Gauteng, D = small dealers in Gauteng, *D = equal frequency in two of the PLC phases and *M = equal

frequency in two of the PLC phases

No deductions or discussions will be made from Table 7.70. This table will be used to compile Table 7.71. Extractions of the strategies that correspond with the theory will be shown. Table 7.71 illustrates the variables by organisational type and in total.

The total sample (**45%**), dealers (**45%**) and manufacturers (**35%**) displayed less than positive linkage success rate with Kotler's theory as indicated in the columns 6, 2 and 4 of Table 7.71.

Table 7.71: Strategies of small manufacturers and small dealers that correspond with Kotler's theory

Manufacturers (M)		Dealers (D)		Total sample (P)	
Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Fit or linkage – by variable number	% fit TM (Total in column 1 + 20)*	Fit or linkage – by variable number	% fit ^{TD} (Total in column 3+ 20)*	Fit or linkage – by variable number	% fit ^{TP} (Total in column 5+ 20)*
V70. Diversify brands and models V71. Offer a basic product V72. Phasing out a weak product V75. Charge a cost plus price V80. Build product awareness among early adopters V83. Reduce sales promotion to the minimum level V88. Go selective and phase out all unprofitable outlets	7 ÷ 20 x 100	V70. Diversify brands and models V71. Offer a basic product V72. Phasing out a weak product V76. Set a price to match or better the price of competitors V80. Build product awareness among early adopters V81. Stress brand differences and benefits V82. Increase and encourage brand switching V83. Reduce sales promotion to the minimum level V88 Go selective and phase out all unprofitable outlets	9 ÷ 20 x 100	V70. Diversify brands and models V71. Offer a basic product V72. Phasing out a weak product V76. Set a price to match or better the prices of competitors V80. Build product awareness among early adopters V81. Stress brand differences and benefits V82. Increase and encourage brand switching V83. Reduce sales promotion to the minimum level V88 Go selective and phase out all unprofitable outlets	9 ÷ 20 x 100
Total = 7	35%	Total = 9	45%	Total = 9	45%

* 20 - Maximum number of strategies in the different PLC phases

TM - Fit between theory (T) and manufacturer organisations (M)

^{TD} - Fit between theory (T) and dealer organisations (D)

^{TP} - Fit between theory (T) and the totalsample (P)

Small manufacturers (**TM**) associated 7 (35%) of the 20 marketing strategies provided in the theory depicted in Table 7.71 with the correct PLC phase. Small dealers (**TD**) associated 9 (45%) of the 20 marketing strategies provided in the theory and depicted in Table 7.71 with the correct PLC phase.

The less than positive linkage by the respondents of matching marketing strategies with the theory provided by Kotler (2000: 316) depicted in Table 7.71, can be compared to the result on question 16 discussed in paragraph 7.4 (f). It can be deduced that the respondents confused marketing objectives with marketing strategies.

The main finding is that marketing decision-makers in small manufacturing and small dealer organisations associated the marketing strategies in the PLC phases differently (more than 50%) from those marketing strategies predicated in theory.

It is also important to determine whether there are differences in the linkage of marketing strategies with Kotler's theory for organisations with and without a marketing department.

Table 7.72 illustrates the linkage of strategies to the appropriate PLC phase for small manufacturing and small dealer organisations with and without a marketing department.

Table 7.72 reveals the following differences:

- The total sample (**P**) with a marketing department reported a 45% ($9 \div 20 \times 100$) positive linkage with Kotler's theory (T).
- Manufacturing organisations (**M**) with a marketing department reported a 35% ($7 \div 20 \times 100$) linkage success rate with Kotler's theory (T). This is the same linkage percentage achieved by manufacturers as indicated in Table 7.71.
- Dealer organisations (**D**) with a marketing department reported a 50% ($10 \div 20 \times 100$) linkage with Kotler's theory (T). This is higher than the linkage of 45% for dealers indicated in Table 7.71.

Table 7.72: Linkage of strategies to the appropriate PLC phases per organisational type with or without a marketing department and Kotler's theory

Marketing mix instrument	Strategies	PLC phases								
		Intro phase		Growth phase		Maturity phase		Decline phase		
Product (V70 – V73)	V 70. Diversify brands and models									
	V 71. Offer a basic product									
	V 72. Phasing out weak products									
	V 73. Offer product extensions, service and warranties			T		M		P	D	
Price (V74 – V77)	V74. Cut prices					T	M	T	D	
	V75. Charge a cost plus price	T	M			P	D			
	V76. Set a price to match or better the prices of competitors		M			T	P	D		
	V77. Set a price to penetrate the market	F	M	D	T					
Advertising (V78 – V81)	V78. Build awareness and interest in the mass market through advertising	F	M	D	T					
	V79. Reduce the advertising level needed to retain hard core loyal customers					P	M	D	T	
	V80. Build product awareness among early adopters									
	V81. Stress brand differences and benefits		M			T	P	D		
Sales Promotion (V82 – V85)	V82. Increase and encourage brand switching		M			T	P	D		
	V83. Reduce sales promotion to the minimum level									
	V84. Use heavy sales promotion to entice trial		T		P	M	D			
	V85. Reduce sales promotion to take advantage of a heavy consumer demand				T		P	M	D	
Distribution (V86 – V89)	V86. Build intensive distribution	P	M	D	T					
	V87. Build selective distribution		T					P	M	D
	V88. Go selective and phase out all unprofitable outlets									
	V89. Build more intensive distribution				P	M	D	T		

Note: T = Theory as provided by Kotler (2000: 316), P = Total sample of small organisations with a marketing department, M = Small manufacturers with a marketing department, D = Small dealers with a marketing department,

The main finding is that marketing decision-makers in manufacturing and dealers organisations with a marketing department or function concurred slightly more with regard to strategies used in the different phases of the PLC when compared to Kotler's theory.

7.5 MAJOR FINDINGS

The results obtained in this study yielded the following findings that are representative of small manufacturers and dealers in Gauteng with between 11 – 50 employees. It is important to note that more than one finding will be used to determine whether the propositions in this study can be supported or not (discussed further in paragraph 7.6).

The following major findings are reported:

- (1) Forty percent of marketing decision-makers in small manufacturing organisations and small dealer organisations of the sample in Gauteng employing between 11 – 50 people indicated that their organisations know of and apply the product life cycle concept as a decision-making vehicle (p. 181).
- (2) Sixty eight percent of manufacturer and dealer organisations have a marketing department or function although 91.30% indicated that they have a sales function (p. 187).
- (3) The majority of manufacturer and dealer organisations (52%) in the sample can be regarded as small based on the fact that they have between 11 – 20 employees (p. 188).
- (4) There are significant differences between small manufacturing organisations and small dealer organisations when applying the product life cycle concept. Small dealers regarded buying, pricing and advertising as more important than small manufacturers (p. 193).
- (5) Small manufacturers regarded manufacturing and product development as more important than small dealers (p. 193).

- (6) There are no significant differences between small manufacturing organisations and small dealer organisations when applying the product life cycle concept in the execution of distribution, forecasting, costing, monitoring market share, competitive evaluation and allocating resources although these aspects are important (p. 194).
- (7) Small manufacturing organisations in Gauteng regard *manufacturing* and small dealer organisations regard *price* as the most important aspects when applying the product life cycle concept (p. 194).
- (8) Price is the major aspect responsible for creating a competitive advantage as reported by the total sample (p. 196).
- (9) Product is the most important marketing mix instrument for creating a competitive advantage based on the collective summation of marketing related aspects as reported by the total sample (p. 197).
- (10) Relationships are the most important *other marketing mix related aspect* creating a competitive advantage (more important than place, promotion, people, processes and physical evidence) as reported by the total sample (p. 197).
- (11) Price is the major aspect responsible for creating a competitive advantage cited independently by small manufacturing organisations and small dealer organisations (p. 198).
- (12) Small manufacturing and small dealer organisations in Gauteng have mostly multiple product ranges, less one product ranges and the least single products (p. 199).
- (13) Less than half of the marketing decision-makers in manufacturing and dealer organisations who have indicated that they have multiple product ranges apply the product life cycle concept on each individual product within each product range (p. 200).

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- (14) Forty-eight percent of the marketing decision-makers in small manufacturing organisations and more than half of the marketing decision-makers in small dealer organisations indicated that their primary products or best sellers are positioned in the growth phase of their product life cycles (p. 202).
 - (15) The majority of the marketing decision-makers in manufacturing and dealer organisations indicated that necessity of the product is the primary reason for individual products or product ranges to be best sellers, followed by price (p. 205).
 - (16) Marketing decision-makers in small organisations (small manufacturers and small dealers) provided primary marketing objectives in each PLC phase: high/maximum sales, increased advertising and sales promotion in the introductory phase, high/maximum sales and low price in the growth and maturity phases respectively and high/maximum sales, increased advertising and sales promotion in the decline phase. (p. 207).
 - (17) Marketing decision-makers in both small manufacturing organisations and small dealer organisations provided high/maximum sales as the primary marketing objective for their best seller, followed by low price (p. 209).
 - (18) More than three-quarters of manufacturing and dealer organisations in Gauteng engage in strategic marketing planning and development by using the product life cycle phases (p. 211).
 - (19) Small manufacturing organisations and small dealer organisations in Gauteng do strategic marketing planning and development on an annual basis or less frequently (96% of the sample) (p. 212).

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- (20) Sixty six percent of small manufacturing organisations in Gauteng and forty nine percent of small dealer organisations in Gauteng do strategic marketing planning and development on an annual basis (p. 213).
- (21) Ninety two percent of manufacturing and dealer organisations in Gauteng indicated that the product life cycle influences marketing strategy and development from an average to an above average extent (p. 214).
- (22) There is no difference between small manufacturing and small dealer organisations in Gauteng in the extent to which the product life cycle influences marketing strategy and development (p. 214).
- (23) The only significant difference between small manufacturing organisations and small dealer organisations with regard to the degree of control is with the product mix variable (p. 217).
- (24) Small manufacturing organisations have the highest degree of control over product while small dealer organisations have the highest degree of control over people as a marketing mix instrument (p. 217).
- (25) Marketing decision-makers in small manufacturing and small dealer organisations in Gauteng regard incentives to personnel as the most important *people* aspect in the introductory phase of the PLC (p. 219).
- (26) Policies and procedures are regarded by marketing decision-makers in small manufacturing and small dealer organisations in Gauteng as the most important *process* aspect in the introductory phase of the PLC (p. 219).
- (27) The organisation's name is regarded by marketing decision-makers in small manufacturing and small dealer organisations in Gauteng as the most important *physical evidence* aspect in the introductory phase of the PLC (p. 219).

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- (28) Marketing decision-makers in small manufacturing and small dealer organisations in Gauteng regard incentives to personnel as the most important *people* aspect in the growth phase of the PLC (p. 221).
- (29) Marketing decision-makers in small manufacturing and small dealer organisations in Gauteng regard complaints handling, (followed by a toll free number) as the most important *process* aspect in the growth phase of the PLC (p. 221).
- (30) Marketing decision-makers in small manufacturing organisations and small dealer organisations in Gauteng regard the organisation's logo as the most important *physical evidence* aspect in the growth phase of the PLC, followed by the organisation's name (p. 221).
- (31) Marketing decision-makers in small manufacturing organisations and small dealer organisations in Gauteng regard incentives to personnel as the most important *people* aspect in the maturity phase of the PLC, followed by training of personnel (p. 222).
- (32) Marketing decision-makers in small manufacturing and small dealer organisations in Gauteng regard complaints handling as the most important *process* aspect in the maturity phase of the PLC (although the mean score was relatively low) (p. 222).
- (33) Marketing decision-makers in small manufacturing and small dealer organisations in Gauteng regard the organisation's logo as the most important *physical evidence* aspect in the maturity phase of the PLC, followed by the organisation's name (p. 223).
- (34) Marketing decision-makers in small manufacturing and small dealer organisations in Gauteng regard incentives to personnel as the most important *people* aspect in the decline phase of the PLC, followed by training of personnel (p. 224).

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- (35) Marketing decision-makers in small manufacturing and small dealer organisations in Gauteng regard a toll free number as the most important *process* aspect in the decline phase of the PLC, followed by the organisations name (p. 224).
- (36) Marketing decision-makers in small manufacturing and small dealer organisations in Gauteng regard the organisation's logo as the most important *physical evidence* aspect in the decline phase of the PLC although the organisation's name had virtually the same importance (p. 224).
- (37) All the marketing mix related aspects pertaining to people, processes and physical evidence mix are important except for the marketing mix aspects linked to processes in the *maturity* phase (p. 225).
- (38) Marketing decision-makers in the sample attached a high importance to the people, processes and physical evidence (expanded marketing mix) across all four phases of the product life cycle concept (p. 226).
- (39) Marketing decision-makers regard physical evidence as the most important marketing mix instrument in the *introductory* phase of the product life cycle (p. 227).
- (40) Marketing decision-makers regard processes as the most important marketing mix instrument in the *growth* phase of the product life cycle (p. 227).
- (41) Marketing decision-makers regard *people* as the most important marketing mix instrument in the both the *maturity* and *decline* phases of the product life cycle (p. 228).
- (42) *Physical evidence* is the only marketing mix instrument with the highest degree of importance for both small manufacturers and small dealers in the same PLC phase, namely *introductory* (p. 228).

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- (43) Small manufacturers attached an equal degree of importance to *processes* and *physical evidence* as marketing mix instruments in the *growth* and *introductory* phase respectively when compared to the degree of importance of the other marketing mix instruments in the other PLC phases (p. 229).
- (44) Small dealers regard *physical evidence* as the most important marketing mix variable in the *introductory* phase followed by *processes* as most important in the *decline* phase when compared to the other PLC phases (p. 229).
- (45) There is no significant difference in the importance of the mean values for each of the three expanded marketing mix instruments within the same PLC phase (p. 230).
- (46) The sample described heavy/intensive advertising as the primary marketing objective to be associated with the *introductory phase* of the PLC, followed by the building of a strong brand image and awareness (p. 231).
- (47) Marketing decision-makers in both small manufacturing organisations and small dealer organisations independently described heavy/intensive advertising as the primary marketing objective to be associated with the *introductory phase* of the PLC, followed by building strong brand image and awareness. (This is the same finding as for the total sample) (p. 232).
- (48) The total sample described high turnover as the primary marketing objective to be associated with the *growth phase* of the PLC, followed by increased advertising (p. 233).
- (49) Marketing decision-makers in small manufacturing organisations described high turnover as the primary marketing objective to be

associated with the *growth phase* of the PLC, followed by increase in advertising and the building of relationships (p. 234).

- (50) Marketing decision-makers in small dealer organisations described high turnover as the primary marketing objective to be associated with the *growth phase* of the PLC, followed by increase in advertising and the selling of additional products (p. 234).
- (51) The total sample described maximising sales as the primary marketing objective to be associated with the *maturity phase* of the PLC, followed by reduced advertising and maximising/high profit (p. 235).
- (52) Marketing decision-makers in small manufacturing organisations described *maximise/high profit* and *customer retention* as the primary marketing objective to be associated with the *maturity phase* of the PLC, followed by reduced cost and research and development (p. 236).
- (53) Marketing decision-makers in small dealer organisations described *maximise sales* as the primary marketing objective to be associated with the *maturity phase* of the PLC, followed by reduced advertising and maximise/high profit (p. 236).
- (54) The total sample described *reduced prices* as the primary marketing objective to be associated with the *decline phase* of the PLC, followed by the phasing out of the product (p. 238).
- (55) Marketing decision-makers in small manufacturing organisations described reduced prices as the primary marketing objective to be associated with the *decline phase* of the PLC, followed by the feed on/use of the reputation (p. 238).
- (56) Marketing decision-makers in small dealer organisations described reduced prices as the primary marketing objective to be associated

with the *decline phase* of the PLC, followed by the phasing out of the product (p. 238).

- (57) Marketing decision-makers in small manufacturing organisations and small dealer organisations may have confused certain marketing objectives with marketing strategies in the different PLC phases (p. 238).
- (58) Marketing decision-makers in small manufacturing and small dealer organisations described marketing objectives, in the different phases of the PLC, which are relatively similar to the theory provided by Kotler (2000: 316) (p. 240).
- (59) There is no significant difference between the high likelihood of the continued future use of the product life cycle for general management and for marketing decision-making purposes (p. 243).
- (60) Marketing decision-makers in manufacturing and dealer organisations show no significant differences between the high likelihood of continued use of the product life cycle in future for general management decision-making purposes (p. 244).
- (61) Marketing decision-makers in manufacturing and dealer organisations show no significant differences between the high likelihood of continued use of the product life cycle in future for marketing decision-making purposes (p. 244).
- (62) The likelihood of continuing with the use of the product life cycle concept in future for general and marketing decision-making is equally high irrespective whether small manufacturing and small dealer organisations have a marketing department or not (p. 245).

- (63) The total sample of small organisations in Gauteng achieved a 75% match with the characteristics in each product life cycle phase as provided by the theory (Kotler, 2000: 316) (p. 248).
- (64) The differences between small manufacturing organisations and small dealer organisations with regard to Kotler's characteristics are (p. 249):
- (i) Sales**
Small manufacturers indicated peak sales in the growth phase while small dealers reported peak sales in the maturity phase.
- (ii) Cost**
Small manufacturers indicated low cost per customer in the maturity phase while dealers reported low cost per customer in the growth phase.
- (iii) Profits**
Small manufacturers indicated high profits in the maturity phase while dealers reported high profits in the growth phase.
- (iv) Competitors**
Small manufacturers indicated declining number of competitors in the maturity phase while dealers reported declining number of competitors in the decline phase.
- (65) Small manufacturers and small dealers both achieved a match success rate of 62.50% with Kotler's (2000: 316) theory on characteristics in each phase of the PLC (p. 249).
- (66) The differences between the characteristics identified by the sample with a marketing department/function and Kotler's characteristics are (p. 250):
- (i) Sales**
Small manufacturers and small dealers with a marketing department reported low sales in the decline phase while Kotler indicated low sales in the introductory phase.
- (ii) Cost**
Small manufacturers and small dealers with a marketing department

reported high cost per customer in the decline phase while Kotler indicated high cost per customer in the introductory phase.

(iii) Profits

Small manufacturers and small dealers with a marketing department reported negative profits in the decline phase while Kotler indicated negative profits in the introductory phase.

Small manufacturers and small dealers with a marketing department reported high profits in the growth phase while Kotler indicated high profits in the maturity phase.

(iv) Competitors

Small manufacturers and small dealers with a marketing department reported few competitors in the decline phase while Kotler indicated few competitors in the introductory phase.

(67) Marketing decision-makers in manufacturing and dealer organisations with a marketing department provided a relatively good association (62%) with Kotler's theory on the characteristics within the different PLC phases (p. 251).

(68) Differences between the small manufacturing organisations and small dealer organisations with a marketing department/function and Kotler's characteristics are (p. 252):

(i) Sales

Small manufacturers and small dealers with a marketing department reported low sales in the decline phase while Kotler indicated low sales in the introductory phase.

(ii) Cost

- Small dealers with a marketing department reported high cost per customer in the decline phase while Kotler indicated high cost per customer in the introductory phase.

- Small dealers with a marketing department reported low cost per customer in the growth phase while Kotler indicated low cost per customer in the maturity phase.
- Small dealers and manufacturers with a marketing department reported low cost per customer in the growth phase and maturity phases respectively, while Kotler indicated low cost per customer in the decline phase.

(iii) Profits

- Small manufacturers and small dealers with a marketing department reported negative profits in the decline phase while Kotler indicated negative profits in the introductory phase.
- Small dealers with a marketing department reported high profits in the growth phase while Kotler indicated high profits in the maturity phase.

(iv) Competitors

Small manufacturers and small dealers with a marketing department reported few competitors in the decline phase while Kotler indicated few competitors in the introductory phase.

- (69) Marketing decision-makers in manufacturing organisations with a marketing department or function showed a better fit with Kotler's theory on the characteristics within the different PLC phases than dealer organisations with a marketing department or function (p. 253).
- (70) Respondents regarded product features and options as the most important marketing mix related aspect in the introductory phase of the PLC (p. 255).
- (71) Respondents regarded product features and options as the most important product aspect, low price as the most important price aspect, intensive distribution as the most important place aspect and advertising as the most important promotion aspect in the introductory phase of PLC (p. 255).

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- (72) Respondents regarded price as the least important marketing mix instrument in the introductory phase (p. 256).
- (73) Respondents regarded advertising as the most important marketing mix related aspect in the growth phase of the PLC (p. 257).
- (74) Respondents regarded product features and options as the most important product aspect, payment terms as the most important price aspect, exclusive distribution as the most important place aspect and advertising as the most important promotion aspect in the growth phase of the PLC (p. 257).
- (75) Respondents regarded advertising as the most important aspect in the maturity phase of the PLC (p. 258).
- (76) Respondents regarded product features and options as the most important product aspect, high price as the most important price aspect, exclusive distribution as the most important place aspect and advertising as the most important promotion aspect in the maturity phase of the PLC (p. 259).
- (77) Respondents regarded product features and options as well as warranties as the most important aspects in the decline phase of the PLC (p. 260).
- (78) Respondents regarded product features and options and warranties as the most important product aspects, low price as the most important price aspect, exclusive distribution as the most important place aspect and advertising as the most important promotion aspect in the decline phase of the PLC (p. 260).
- (79) Marketing decision-makers in the sample attached a very high importance to the four traditional marketing mix instruments across all

the PLC phases except for price in the introductory phase and place in the decline phase (price and place with mean values lower than 3) (p. 261).

- (80) Marketing decision-makers in the sample regarded promotion as the most important marketing mix instrument in both the growth and maturity phases, while product was regarded as the most important marketing mix instrument in the introductory and decline phases of the PLC (p. 261).
- (81) Product and place are mostly important to both small manufacturers and small dealers, in the introductory phase of the PLC while place is most important in the introductory phase (p. 263).
- (82) Small manufacturers regard price as the mostly important in the decline phase while small dealers regard price as most important in the growth phase of the PLC (p. 263).
- (83) Small manufacturers regard promotion as most important in the maturity phase while small dealers regard price as mostly important in the introductory phase of the PLC (p. 263).
- (84) Product is regarded by the sample as the most important marketing mix instrument in the introductory phase and promotion as the most important marketing mix instrument in the growth phase (p. 265).
- (85) People is regarded as the most important marketing mix instrument followed by physical evidence, product, promotion, processes, price and place (p. 267).
- (86) Two of the expanded marketing mix instruments have the highest importance (people and physical evidence) (p. 267).
- (87) Marketing decision-makers in small manufacturing and small dealer

organisations regard product and physical evidence as the most important marketing mix instruments in the introductory phase of the PLC (p. 268).

- (88) Marketing decision-makers in small manufacturing and small dealer organisations regard promotion and processes as the most important marketing mix instruments in the growth phase of the PLC (p. 268).
- (89) Marketing decision-makers in small manufacturing and small dealer organisations regard promotion and people as the most important marketing mix instruments in the maturity phase of the PLC (p. 268).
- (90) Marketing decision-makers in small manufacturing and small dealer organisations regard product and people as the most important marketing mix instruments in the decline phase of the PLC (p. 270).
- (91) The total sample provided a 45% linkage with Kotler's theory on marketing strategies in each PLC phase (p. 271).
- (92) The total sample provided the best linkage (75%) with the strategies on product (p. 272).
- (93) The total sample provided the weakest link of 25% with price strategies and distribution strategies respectively (p. 272).
- (94) Marketing decision-makers in small manufacturing and small dealer organisations associated the marketing strategies in the PLC phases differently (more than 50%) from those marketing strategies predicated in theory (p. 274).
- (95) Marketing decision-makers in manufacturing and dealer organisations with a marketing department or function concurred slightly more with regard to strategies used in the different phases of the PLC when compared to Kotler's theory (p. 275).

7.6 RESEARCH PROPOSITIONS

The research propositions as formulated in chapter 1 and motivated in chapter 5 will be evaluated against literature in the literature review, research results and main research findings.

7.6.1 Proposition 1

There is a difference in the application of the product life cycle concept theory assumptions of small organisations in South Africa compared to Kotler's theory.

The theoretical assumptions by Kotler (2000: 316) consisted of marketing objectives, characteristics and marketing strategies reflected in questions 16, 18 and 20 respectively.

- **Results on question 16:**

Marketing decision-makers in small manufacturing and small dealer organisations described marketing objectives, which to a large extent are similar to the theory, provided by Kotler [*Major finding 7.5(58), p. 284*].

It can be concluded that this finding can not support the aspect of marketing objectives in proposition 1.

- **Results on question 18:**

The total sample of small organisations in Gauteng achieved a 75% match with the *characteristics* in each product life cycle phase as provided by the theory (Kotler, 2000: 316) [*Major finding 7.5(63), p. 284*].

This finding indicates that the characteristics portion of the assumptions in proposition 1 can not be supported.

- **Results on question 20:**

The total sample provided a 45% linkage with Kotler's theory on **marketing strategies** in each PLC phase [**Major finding 7.5(91), p.290**].

This result showed that marketing strategies as part of the assumptions in proposition 1 differed substantially from Kotler's theory. This part (strategies) of proposition 1 can be supported.

If the results above are collectively viewed then this proposition can not conclusively be supported or not supported because of the mixed results.

7.6.2 Proposition 2

Marketing managers of small organisations in Gauteng, South Africa use the product life cycle concept to strategically manage their products through the various phases of the product life cycle.

Proposition 2 can be supported by the empirical research results from questions 2, 11, 13 and 17.

Before the support will be motivated it is important to realise that the substance of the support should be treated and viewed against the result that 68.47% of small manufacturing and dealer organisations indicated that they have a marketing function or department responsible for making marketing related decisions (question 4, p. 186).

- (i) More than three-quarters of small manufacturing organisations and small dealer organisations in Gauteng are using the product life cycle phases when they engage in strategic marketing planning and development [**Major finding 7.5(18), p. 278**].
- (ii) Ninety two percent of small manufacturing and small dealer organisations in Gauteng indicated that the product life cycle influences marketing strategy and development from an average to an above average extent [**Major finding 7.5(21), p. 279**].

- (iii) Marketing decision-makers in manufacturing and dealer organisations indicated a high likelihood of continued use of the product life cycle in future for general management decision-making purposes [*Major finding 7.5(60), p. 284*].
- (iv) The likelihood of continuing with the use of the product life cycle concept in future for general management decision-making purposes is equally high irrespective of the fact whether small manufacturing and small dealer organisations have a marketing department or not [*Major finding 7.5(62), p. 284*].

If the results above are collectively viewed then this proposition should be **supported**.

7.6.3 Proposition 3

Small manufacturers in Gauteng apply and use the product life cycle concept for marketing decision-making purposes.

Proposition 3 can be supported by the questions 2, and 17.

The support from the empirical results on this proposition should be viewed against the results of the 21 small manufacturing organisations in the sample on current and future use tested in this study.

Current use can be supported by:

- (i) Forty percent of small manufacturer organisations of the sample in Gauteng know of and apply the product life cycle concept as a decision-making vehicle [*Major finding 7.5(1), p. 276*].

Future use can be supported by:

- (i) Marketing decision-makers in small manufacturing organisations indicated a high likelihood of continued use of the product life cycle in

future for marketing decision-making purposes [*Major finding 7.5(61), p. 284*].

- (ii) The likelihood of continuing with the use of the product life cycle concept in future for marketing decision-making is equally high irrespective of whether small manufacturing organisations have a marketing department [*Major finding 7.5(62), p. 284*].

If the results above are holistically viewed then this proposition should be **supported**.

7.6.4 Proposition 4

Small dealers in Gauteng apply and use the product life cycle concept for marketing decision-making purposes.

Proposition 4 can be supported by questions 2, and 17.

The support from the empirical results on this proposition should be viewed against the results of the 71 small dealer organisations in the sample on current and future use tested in this study.

Current use can be supported by:

- (i) Forty percent of small manufacturer organisations of the sample in Gauteng know of and apply the product life cycle concept as a decision-making vehicle [*Major finding 7.5(1), p. 276*].

Future use can be supported by:

- (i) Marketing decision-makers in small dealer organisations indicated a high likelihood of continued use of the product life cycle in future for marketing decision-making purposes [*Major finding 7.5(61), p. 284*].
- (ii) The likelihood of continuing with the use of the product life cycle concept in future for marketing decision-making is equally high

irrespective of whether small dealer organisations have a marketing department [**Major finding 7.5(62), p. 284**].

If the results above are holistically viewed then this proposition should be **supported**.

7.6.5 Proposition 5

There is a significant difference between small manufacturing and small dealer organisations when applying and using the PLC concept for marketing decision-making purposes.

This proposition was derived from propositions 3 and 4 and was formulated to assess whether the outcome of proposition 3 and 4 are significantly different when results are compared between small manufacturers and small dealers.

Proposition 5 can not be supported in the view of the results of questions 2, 6 and 17.

- (i) There are no significant differences between small manufacturing organisations and small dealer organisations when applying the product life cycle concept in the execution of distribution, forecasting, costing, monitoring market share, competitive evaluation and allocating resources although these aspects are however important [**Major finding 7.5(6), p. 276**].
- (ii) Small manufacturing organisations in Gauteng regard *manufacturing*, and small dealer organisations regard *price*, as the most important aspects when applying the product life cycle concept [**Major finding 7.5(7), p. 277**]. This finding supports the proposition.
- (iii) There is no difference in the extent to which the product life cycle influences marketing strategy and development between small manufacturing and small dealer organisations in Gauteng [**Major finding 7.5(22), p. 279**].

If the results above are holistically viewed then this proposition should **not** be **supported**.

7.6.6 Proposition 6

Small organisations in Gauteng, South Africa don't have a marketing function responsible for applying the product life cycle concept when marketing strategy is developed and marketing decisions are taken.

Proposition 6 cannot be supported by the results of question 4.

Small manufacturing and dealer organisations in Gauteng, South Africa have, in sixty-eight percent of all cases, a marketing department or function responsible for marketing decision-making [*Major finding 7.5(2), p. 276*].

The converse is that in thirty-two percent of the cases other functional departments or functions are responsible for making marketing decisions in manufacturing and dealer organisations in Gauteng, South Africa.

This proposition can therefore **not** be **supported** based on the above-mentioned result.

Small manufacturing and small dealer organisations who had a marketing department revealed interesting results [*Major findings 7.5(65), p. 285; 7.5(66), p. 285 and 7.5(95), p. 290*].

7.7 CONCLUSION

This chapter provided results on a question-by-question basis for the total sample and per organisational type (small manufacturers and dealers).

A list of the main findings was developed and the various propositions were evaluated against the literature review and/or empirical results (main findings). Proposition 1 could not be conclusively supported or not by the findings while propositions 2, 3, and 4 were supported and propositions 5 and 6 were not supported from the list of main findings.

Chapter 8 will provide conclusions and recommendations based on the major findings presented in this chapter.