# CHAPTER 5 RESEARCH RESULTS

## 5.1 INTRODUCTION

The purpose of quantitative data analysis is to reduce (i.e. categorise, order, manipulate and summarise) data to an intelligible and interpretable form, so that the relations of research problems can be studied, tested and conclusions can be drawn (Kruger, De Vos, Fouché & Venter, 2005:218). For the purpose of the analysis of the data for this study, descriptive and inferential statistics were used. Descriptive statistics were used to describe specific observations by presenting quantitative data in a manageable form (such as in tables and graphs, and the calculation of numerical summaries such as frequencies, averages, medians, percentages and ranges). Inferential statistics were used to move beyond the mere description of specific observations in the sense that it (descriptive statistics) was used to make inferences about the population from which the sample observations were drawn (Diamantopoulos & Schlegelmilch, 2000:64-65; Babbie & Mouton, 2002:458).

In this chapter, the data is analysed according to the objectives and sub-objectives to obtain answers to the research problem decided on for this research project. This implies that the research results are not necessarily discussed in the sequence of the conceptual framework or that of the questionnaire. The analysis starts with a description of the demographic characteristics and other descriptive characteristics of the sample. Next, the analysis of the objectives and sub-objectives follows.

For the purpose of this study, the data is expressed in terms of frequencies and percentages where respondents had to select only one response option from a list of response options provided by the researcher. However, it should be noted that the data is expressed in terms of the number of responses obtained where respondents had to select more (multiple) responses from the list provided. All the percentages are shown to two decimal places in the graphical representations and the text.

## 5.2 DEMOGRAPHIC AND OTHER DESCRIPTIVE CHARACTERISTICS OF THE SAMPLE

In the ensuing sections, the sample is firstly described in terms of demographic characteristics and secondly in terms of other descriptive characteristics that did not necessarily form part of the objectives for the study, but were included in the questionnaire. The demographic characteristics refer to objective characteristics, including gender, age, level of education, monthly household income, cultural grouping and residential area. The other descriptive characteristics include the type of major electrical household appliances causing the most dissatisfaction, brand names of dissatisfactory appliances and purchase dates of appliances.

### 5.2.1 Demographic characteristics of the sample

Respondents were asked to indicate their gender, age, level of education, monthly household income, cultural grouping and residential area.

Figure 5.1 shows the gender distribution of respondents.

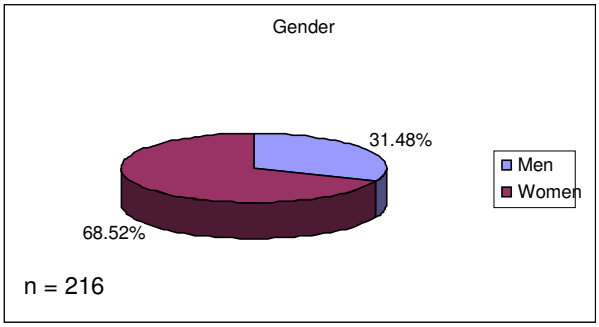


**FIGURE 5.1: DISTRIBUTION OF SAMPLE BY GENDER**

It is clear that about two thirds of the respondents (68.52%) were female, while nearly a third of respondents (31.48%) were male.

The age distribution of respondents is given in Figure 5.2.

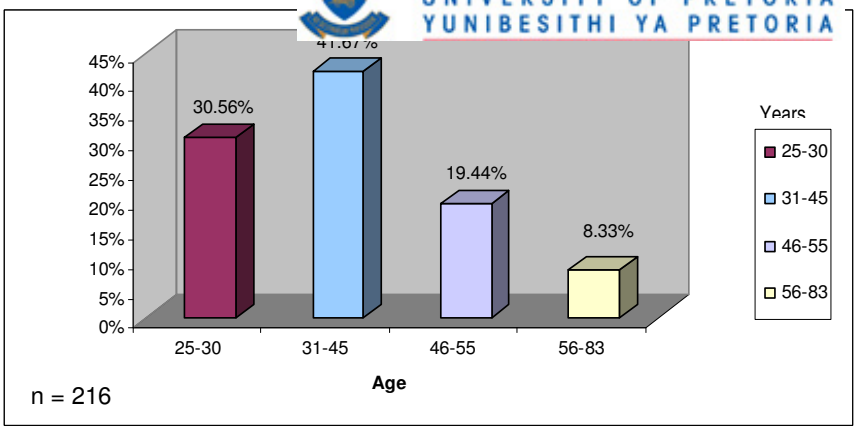


**FIGURE 5.2: DISTRIBUTION OF SAMPLE BY AGE**

A total of 30.56% of the respondents were 25-30 years of age and 41.67% of the respondents were 31-45 years old. Whereas a total of 19.44% of the respondents were 46-55 years old, 8.33% of the respondents were 56-83 years of age. When one combines the age category of 25-30 years with the category of 31-45 years, it is evident that the majority or 72.23% [30.56% + 41.67%] of the respondents belonged to this particular group. When one combines the age category of 46-55 years with the category of 56-83 years, it is clear that 27.77% [19.44% +8.33%] of the respondents fell in this specific age group.

Figure 5.3 shows the highest level of education of respondents.

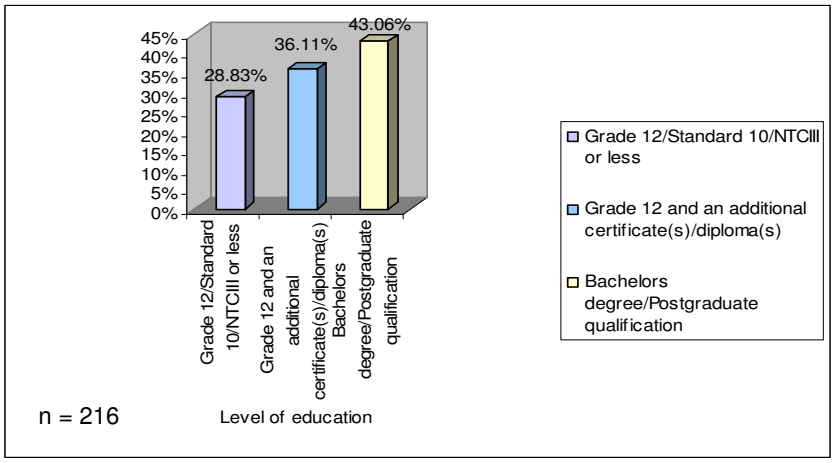


**FIGURE 5.3: DISTRIBUTION OF SAMPLE BY LEVEL OF EDUCATION**

Whereas a total of 20.83% of the respondents' highest level of education was Grade 12/Standard 10/NTCIII or less, 36.11% of the respondents had Grade 12 and an additional certificate(s)/diploma(s). A total of 43.06% of the sample held either a Bachelors degree or a post-graduate qualification.

The monthly household income of respondents is shown in Figure 5.4.

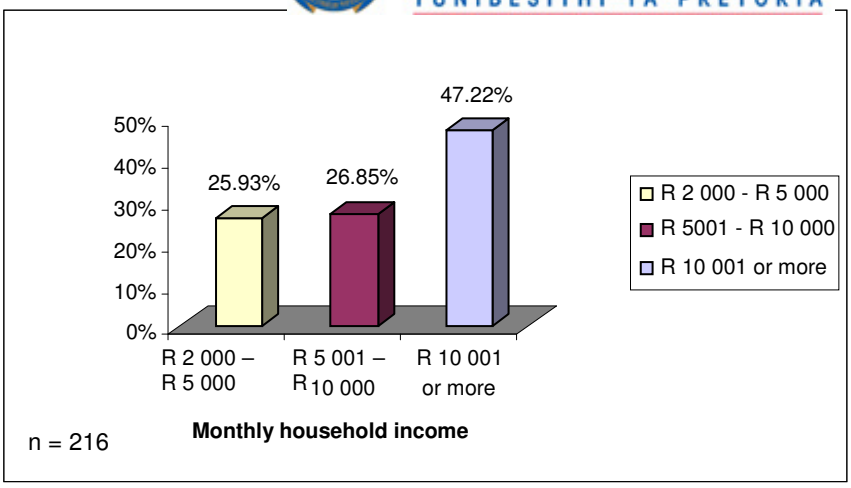


**FIGURE 5.4: MONTHLY HOUSEHOLD INCOME DISTRIBUTION**

It is clear that 25.93% and 26.85% of the respondents fell in the monthly household income categories of R 2 000 – R 5 000 and R 5 001 – R 10 000 respectively. A total of 47.22% of the respondents belonged to the monthly household income category of R 10 001 or more.

Figure 5.5 indicates the cultural group distribution of the respondents. It is important to note that the number of responses from the Indian (2 respondents) and Coloured (4 respondents) groupings was combined with the number of responses from the White (144 respondents) grouping to facilitate statistical calculations. (Generally, white, Indian and coloured South Africans still have a higher level of education compared to black South Africans). The combined group was labelled “Caucasian”, while the other major cultural grouping was labelled “Black” (66 respondents).

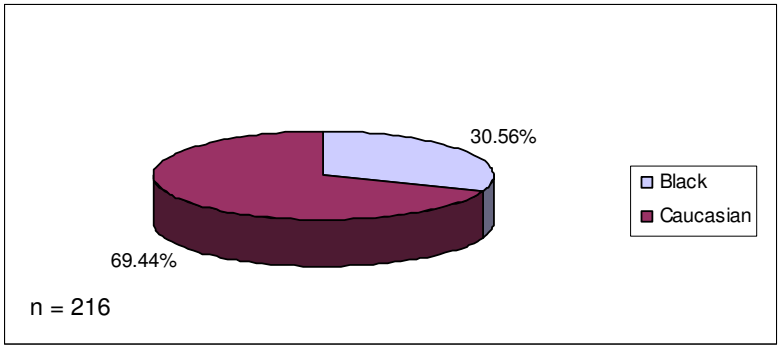


**FIGURE 5.5 DISTRIBUTION OF SAMPLE BY CULTURAL GROUP**

About two thirds of the respondents (69.44%) were Caucasian, while nearly a third of the respondents (30.56%) were black.

Table 5.1 shows the distribution of respondents’ residential areas. Information in this regard is supplied for the sake of completeness and to confirm that the respondents lived in the

greater Pretoria area (Tshwane). No further statistical analysis was conducted concerning the respondents' residential areas.

**TABLE 5.1: DISTRIBUTION OF SAMPLE BY SUBURB**

| Suburb | Frequency | Percentage |
|---|---|---|
| Akasia | 1 | 0.46 |
| Arcadia | 11 | 5.09 |
| Attridgeville | 7 | 3.24 |
| Brooklyn | 5 | 2.31 |
| Centurion | 20 | 9.26 |
| De Wilgers | 2 | 0.93 |
| Doornpoort | 1 | 0.46 |
| Doringkloof | 1 | 0.46 |
| Ekklesia | 1 | 0.46 |
| Elarduspark | 1 | 0.46 |
| Faerie Glen | 10 | 4.63 |
| Ga-rankuwa | 4 | 1.85 |
| Garsfontein | 3 | 1.39 |
| Gesina | 1 | 0.46 |
| Groenkloof | 3 | 1.39 |
| Hammanskraal | 1 | 0.46 |
| Hatfield | 8 | 3.70 |
| Hercules | 1 | 0.46 |
| Irene | 1 | 0.46 |
| Lotus Gardens | 1 | 0.46 |
| Lynnwood | 6 | 2.78 |
| Lynnwood Glen | 5 | 2.31 |
| Lynnwood Ridge | 2 | 0.93 |
| Lyttelton | 2 | 0.93 |
| Mabopane | 4 | 1.85 |
| Magalieskruin | 1 | 0.46 |
| Mamelodi | 15 | 6.94 |
| Menlo Park | 6 | 2.78 |
| Montana Park | 1 | 0.46 |
| Montana Park exts | 2 | 0.93 |
| Moreletapark | 6 | 2.78 |
| Muckleneuk | 1 | 0.46 |
| Murryfield | 2 | 0.93 |
| Newlands | 5 | 2.31 |
| Pretoria CBD | 4 | 1.85 |
| Pretoria North | 9 | 4.17 |
| Queenswood | 3 | 1.39 |
| Rietfontein | 3 | 1.39 |
| Rietondale | 4 | 1.85 |
| Rietvalleirand | 1 | 0.46 |
| Rooihuiskraal | 4 | 1.85 |
| Rosslyn | 1 | 0.46 |
| Salvokop | 1 | 0.46 |
| Saulsville | 3 | 1.39 |
| Silverton | 2 | 0.93 |
| Sinoville | 3 | 1.39 |
| Soshanguve | 8 | 3.70 |
| Synnyside | 11 | 5.09 |
| Valhalla | 1 | 0.46 |
| Villieria | 1 | 0.46 |
| Wapadrand | 2 | 0.93 |
| Waterkloof | 6 | 2.78 |
| Waterkloof Ridge | 1 | 0.46 |
| Waverley | 2 | 0.93 |
| Weavind Park | 2 | 0.93 |
| Wonderboom South | 2 | 0.93 |
| Woodhill | 1 | 0.46 |
| Total | 216 | 100.00 |

In this study, respondents were selected in the pre-determined categories for gender, age, culture, level of education and average monthly household income of the target population. (Refer to Chapter 4, par. 4.4.2.) Additionally, respondents resided in various residential areas

of the Tshwane metropolitan area (city of Pretoria). It was decided that a sample size of 200 should be sufficient for analysing the data with the proposed techniques. (Refer to Chapter 4, par. 4.4.2.) Finally, 216 sample elements (respondents) were obtained.

### 5.2.2 Other descriptive characteristics

Respondents were asked to name only one major electrical household appliance that has caused them the most dissatisfaction during the last four years (Question 1, Section B – Addendum A). The results appear in Table 5.2.

**TABLE 5.2: MAJOR ELECTRICAL HOUSEHOLD APPLIANCES, PURCHASED WITHIN THE LAST 4 YEARS, CAUSING THE MOST DISSATISFACTION**

| Major electrical household appliances | Frequency | Percentage |
|---|---|---|
| Refrigerator | 38 | 17.59 |
| Freezer | 11 | 5.09 |
| Combination fridge-freezer | 15 | 6.94 |
| Built-in oven | 7 | 3.24 |
| Built-in stove | 12 | 5.56 |
| Free-standing stove (plates plus oven combination) | 23 | 10.65 |
| Microwave oven | 48 | 22.22 |
| Washing machine: front loader | 15 | 6.94 |
| Washing machine: top loader | 26 | 12.04 |
| Tumble dryer | 6 | 2.78 |
| Dishwasher | 15 | 6.94 |
| Total | 216 | 100.00 |

n = 216

It is evident from Table 5.2 that 22.22% of the respondents were the most dissatisfied with their microwave ovens, followed by 17.59% of the respondents with their refrigerators. When categorising the appliances in product classes, the following patterns emerged in terms of the categories of appliances causing the most dissatisfaction for the sample: cooling appliances 29.62% [refrigerators (17.59%) + freezers (5.09%) + combination fridge-freezers (6.94%)], microwave ovens 22.22%, laundry appliances 21.76% [front loading washing machines (6.94%) + top loading washing machines (12.04) + tumble dryers (2.78%)], cooking and baking appliances 19.45% [built-in ovens (3.24%) + built-in stoves (5.56%) + free-standing stoves (10.65%)] and dishwashers 6.94%.

Respondents were asked to indicate the purchase dates of appliances to allow the researcher to verify whether they (the respondents) complied with the prerequisite

concerning the purchase dates of appliances (Question 2, Section B – Addendum A). The results appear in Table 5.3.

**TABLE 5.3: THE PURCHASE DATES OF MAJOR ELECTRICAL HOUSEHOLD APPLIANCES WITHIN THE LAST 4 YEARS**

| Purchase date | Frequency | Percentage |
|---|---|---|
| 2002 | 69 | 31.95 |
| 2003 | 55 | 25.46 |
| 2004 | 44 | 20.37 |
| 2005+ | 48 | 22.22 |
| Total | 216 | 100.00 |

n = 216

Most of the appliances were purchased in 2002 (31.95%), compared to 25.46% in 2003, 20.37% in 2004 and 22.22% in 2005.

Respondents were not explicitly asked to indicate when they experienced dissatisfaction with their appliances. However, it is clear that 22.22% of the respondents experienced dissatisfaction with their major electrical household appliances in 2005 (implying that dissatisfaction was experienced within the first year of purchase). This obviously only provides a partial view of the number of respondents who experienced dissatisfaction during the first year of purchase, since the response format of the question does not allow one to determine when dissatisfaction was experienced for the remainder of the respondents. Nevertheless, it is quite alarming that such a high percentage of respondents experienced dissatisfaction with their appliances so soon after purchase, since appliances are supposed to operate faultlessly for much longer (i.e. they are regarded as consumer durables). For example, the lifespan for refrigerators has been estimated at 12-14 years, washing machines at 7-10 years, and microwave ovens at 8-10 years (Cooper, 1994).

Consumers' assessment of their satisfaction/dissatisfaction with the actual performance of household appliances thus requires time compared to the immediate assessment of products that are quickly consumed (such as food items) (Broadbridge & Marshall, 1995). "Perhaps due to the complexity of appliances, problems may not appear until the product has been used for a period of time" (Richins, 1982).

It is also important to note that major electrical household appliances have product warranties, usually covering from one to two years, which might influence consumers' complaint behaviour as already mentioned in Chapter 4 under paragraph 4.5.1.

Respondents were also asked to name the brand name of the dissatisfactory appliance. The results are provided in Table 5.4.

**TABLE 5.4: BRAND NAMES OF DISSATISFACTORY APPLIANCES**

| Brand name | Frequency | Percentage |
|---|---|---|
| Aim | 9 | 4.19 |
| AEG | 5 | 2.33 |
| Bauer | 5 | 2.33 |
| Bosch | 9 | 4.19 |
| Daewoo | 1 | 0.47 |
| Defy | 51 | 23.72 |
| Delongi | 1 | 0.47 |
| Fridge master | 2 | 0.93 |
| Fuchs-ware | 1 | 0.47 |
| Indesit | 2 | 0.93 |
| Kelvinator | 24 | 11.16 |
| LG | 43 | 20.00 |
| Microstar | 1 | 0.47 |
| Miele | 1 | 0.47 |
| Muller | 2 | 0.93 |
| Nu tec | 1 | 0.47 |
| Samsung | 17 | 7.91 |
| Sharp | 7 | 3.26 |
| Siemens | 2 | 0.93 |
| Singer | 1 | 0.47 |
| Speed Queen | 23 | 10.70 |
| Stay cool | 2 | 0.93 |
| Westpoint | 3 | 1.40 |
| Whirlpool (including KIC) | 1 | 0.47 |
| Uncertain | 1 | 0.47 |
| Total | 215 | 100.00 |

n = 216 Frequency missing = 1

Table 5.4 shows that the majority (23.72%) of the respondents experienced the most dissatisfaction with appliances from Defy, followed by 20.00% of the respondents with LG. A total of 11.06% and 10.70% of the respondents were respectively the most dissatisfied with Kelvinator and Speed Queen. For the rest of the brand names mentioned by respondents, the response rate varied between 0.47% and 7.91%, creating the impression that the respondents were much less dissatisfied with these brand names compared to Defy and LG, and to a lesser degree with Kelvinator and Speed Queen. It should be noted that brand names such as LG, Defy, Kelvinator and Speed Queen are generally very popular amongst the South African public. Additionally, appliance manufacturers provide comprehensive product ranges for these particular brands compared to some of the lesser-known brands. Thus, it might be that predominantly more respondents mainly purchased well-known appliances that they trust (Defy followed by LG, Kelvinator, Speed Queen), falsely creating the notion that the respondents were more dissatisfied with these brand names compared to the other brand names indicated in Table 5.4.

## 5.3 RESULTS OF OBJECTIVE 1

Objective 1: To explore the nature of the performance failure that caused consumers to be dissatisfied with major electrical household appliances

Sub-objective 1.1 To explore the functional/symbolic performance failure causing consumers' dissatisfaction concerning major electrical household appliances

### 5.3.1 Analysis of open question

Respondents were asked to describe what happened/went wrong concerning the performance failure of their major electrical household appliances in the form of an open-ended question (Question 4.1, Section B – Addendum A). The responses were analysed in terms of the different performance dimensions listed in Addendum A. Consequently, the data is expressed in terms of the number of responses obtained (whereas 216 respondents answered the question, 317 responses were obtained concerning the different performance dimensions). Information in this regard appears in Table 5.5.

**TABLE 5.5: DESCRIPTIONS OF WHAT HAPPENED/WENT WRONG IN TERMS OF INDICATORS FOR FUNCTIONAL AND SYMBOLIC PRODUCT PERFORMANCE DIMENSIONS**

| Performance dimensions | Indicators | Number of responses | Percentage n1 = 317 |
|---|---|---|---|
| Functional Performance | Unusual performance/ functioning in terms of intended end-use | 167 | 52.68 |
| | Failure/breakdown of appliance or some component(s) thereof | 87 | 27.44 |
| | Inconvenience in operating the appliances (physical discomfort, waste of time and energy etc.) | 20 | 6.31 |
| | Inconvenience/difficulty in the maintenance and care of the appliance | 6 | 1.89 |
| | Insufficient durability | 31 | 9.87 |
| Symbolic performance | Lack of sensory pleasure, or sensory dissatisfaction | 1 | 0.32 |
| | Lack of an emotionally pleasurable experience / emotional dissatisfaction | 5 | 1.58 |
| | Total responses | 317 | 100.00 |

n = 216

n1 = total number of responses

Proportionately more responses were obtained for the functional performance dimension compared to the symbolic performance dimension, indicating more problems concerning the functional performance of major electrical household appliances compared to the symbolic performance thereof. Unusual product performance/functioning in terms of the intended end-

use (52.68 % of the responses) and failure/breakdown of the appliance or some component(s) thereof (27.44% of the responses) were the two major functional product performance categories experienced. Relatively few responses indicated inconvenience experienced in operating (6.31%) and maintaining/caring (1.89%) for dissatisfactory appliances. Only 9.87% responses were obtained for insufficient durability. Hardly any responses (1.90%) were obtained for product problems relating to the symbolic performance of appliances.

The open question was asked to facilitate respondents' recollection of what went wrong concerning the performance failure of their major electrical household appliances. The answer to this question is essential as it forms the basis for respondents' responses to questions 4.1, 5, 6, 7, 8 and 9.

### 5.3.2 Exploratory factor analysis of functional/symbolic performance failure

Exploratory factor analysis was performed to determine whether respondents perceived the functional and symbolic performance failure (dimensions) of major electrical household appliances differently.

Factor analysis is a data reduction technique for identifying the internal structure of a set of variables. Common factor analysis focuses explicitly on the interrelationships among the original variables and seeks to describe them in terms of a common underlying dimension; thus, the focus is on explaining the patterns of relationships among the original variables by means of a factor structure (Diamantopoulos & Schlegelmilch, 2000:216; Babbie & Mouton, 2002:472-475).

After exploration of the literature concerning product failure, it was decided that the performance failure of major electrical household appliances manifests in functional and symbolic performance dimensions. Bearing this in mind, ten items (statements/variables) concerning the functional and symbolic performance of major electrical household appliances, were compiled. Respondents were asked to indicate the degree to which they agreed/disagreed with these (ten) statements by using a five-point Likert-type scale (1 = "definitely agree", 2 = "agree", 3 = "uncertain", 4 = "disagree" and 5 = "definitely disagree") (Question 4.2, Section B – Addendum A).

Responses to the 10 items were subjected to an exploratory factor analysis using direct Quartimin Rotation to weed out those variables that fail to show high correlations. Whereas high factor loadings imply that items load highly on a factor/s, providing the most meaning to

the factor solution, low factor loadings imply that items do not load highly on a factor/s. It was expected that the variables of "the appliance broke down", "the appliance did not operate properly", "the appliance was a dud (unusual example of a poor product) from the start", "the appliance did not provide user convenience" and "the appliance required more maintenance and care compared to similar appliances in a faultless condition" would load highly in terms of functional product performance, and that the variables of "the appliance no longer reflected the image/identity I associated with my personal style", "the appliance no longer made me feel good about myself", "I did not enjoy using the appliance any longer", "the appliance no longer impressed me" and "the appliance no longer impressed other people" would load highly in terms of symbolic product performance factor. However, contrary to expectations, a Scree test suggested that only one factor could be extracted (labelled the combined functional and symbolic performance factor). To enhance the reliability of the scale, two items with low loadings (i.e. "the appliance broke down" and "the appliance did not operate properly") were eliminated (i.e. not included) when calculating the Cronbach's alpha. The resulting factor loadings, for the combined functional and symbolic performance factor, after the two items with low loadings were deleted, are indicated in Table 5.6.

**TABLE 5.6: ROTATED FACTOR LOADINGS FOR THE COMBINED FUNCTIONAL AND SYMBOLIC PERFORMANCE FACTOR**

| Items | Factor loadings |
|---|---|
| The appliance was a dud (unusual example of a poor product) from the start | 0.437 |
| The appliance did not provide user convenience | 0.384 |
| The appliance required more maintenance and care compared to similar appliances in a faultless condition | 0.467 |
| The appliance no longer reflected the image/identity I associated with my personal style | 0.705 |
| The appliance no longer made me feel good about myself | 0.645 |
| I did not enjoy using the appliance any longer | 0.698 |
| The appliance no longer impressed me | 0.739 |
| The appliance no longer impressed other people | 0.665 |

Percentage variance explained 36.82

Cronbach's alpha 0.8131

The Cronbach's alpha for the combined functional and symbolic factors is 0.81, which is good considering that 0.70 is the generally accepted cut-off value for being acceptable (Anastasi & Urbina, 1997:91).

The results of the factor analysis show that respondents did not differentiate between the functional and symbolic performance failures of appliances. Therefore, both the functional and symbolic failures were considered important in consumers' evaluation of the performance of their dissatisfactory appliances.

Sub-objective 1.2 To describe the association between demographic variables (i.e. gender, age, level of education, monthly household income and culture) and the functional/symbolic performance failure of major electrical household appliances

### 5.3.3. Analysis of variance (ANOVA) to determine the association between demographic variables and the score on the combined functional and symbolic performance factor

As already discussed, the factor analysis concerning the respondents' perception of the functional and symbolic performance of appliances, resulted in a combined factor, that is, the combined functional and symbolic performance factor. (Refer to par. 5.3.2)

To investigate the association between the independent variables (gender, age, highest level of education, monthly household income and cultural group) and the dependent variable (score on the combined functional and symbolic performance factor), an ANOVA was performed. An ANOVA tests the difference between the means of two or more groups/populations. The results are shown in Table 5.7.

A score out of 5 was determined to indicate respondents' level of agreement/disagreement with the 8 statements (items) concerning the appliances performance in terms of the combined functional and symbolic factor (1 = "definitely agree", 2 = "agree", 3 = "uncertain", 4 = "disagree" and 5 = "definitely disagree") (Question 4.2, Section B – Addendum A). The ratings of the 8 items in the scale were added and divided by 8 for an average score.

**TABLE 5.7: ANOVA TO DETERMINE THE ASSOCIATION BETWEEN DEMOGRAPHIC VARIABLES AND THE SCORE ON THE COMBINED FUNCTIONAL AND SYMBOLIC PERFORMANCE FACTOR**

| Variables | Groups | n | Combined functional and symbolic performance factor | | |
|---|---|---|---|---|---|
| | | | Mean | Std dev | p-value ANOVA |
| Gender | Male | 68 | 2.84 | 0.76 | 0.0098* |
| | Female | 148 | 2.60 | 0.85 | |
| Age categories | 25-30 years | 66 | 2.68 | 0.82 | 0.9974 |
| | 31-45 years | 90 | 2.67 | 0.90 | |
| | 46-55 years | 42 | 2.64 | 0.81 | |
| | 56-83 years | 18 | 2.75 | 0.62 | |
| Highest level of education | Grade 12/Standard 10/NTCIII or less | 45 | 2.31 | 0.79 | 0.0599 |
| | Grade 12 and an additional certificate(s)/diploma(s) | 78 | 2.66 | 0.82 | |
| | Bachelors degree or a Postgraduate qualification | 93 | 2.86 | 0.81 | |
| Monthly household income | R 2 000 – R 5 000 | 56 | 2.38 | 0.79 | 0.9523 |
| | R 5 001 – R 10 000 | 58 | 2.59 | 0.82 | |
| | R 10 001 or more | 102 | 2.88 | 0.81 | |
| Cultural group | Black | 66 | 2.25 | 0.72 | 0.0001* |
| | Caucasian | 150 | 2.86 | 0.81 | |

A mean score of 1 indicates that respondents definitely agreed that the appliance's combined functional and symbolic performance was less than their initial expectation for product performance.

A mean score of 2 indicates that the respondents agreed that the appliance's combined functional and symbolic performance was less than their initial expectation for product performance.

A mean score of 3 indicates that respondents are uncertain whether the appliance's combined functional and symbolic performance was less than their initial expectation for product performance.

A mean score of 4 indicates that respondents disagreed that the appliance's combined functional and symbolic performance was less than their initial expectation (i.e. performed according to expectation).

A mean score of 5 indicates that respondents definitely disagreed that the appliance's combined functional and symbolic performance was less than their initial expectation (i.e. definitely performed according to expectation).

*Mean value and standard deviation for the total group (n = 216) is 2.67 and 0.83 respectively.*

* Significant on the 5% level

In the following discussion, the combined functional and symbolic performance of respondents' appliances is compared with their initial expectations for product performance. (Refer to Chapter 2, par. 2.2.) It should be noted that respondents' initial expectations for product performance were not measured formally in this study. However, previous research findings concerning consumer satisfaction/dissatisfaction, in general, are unambiguously

clear that consumers evaluate product performance according to their specific expectations for product performance (Barlow & Møller, 1996). The latter would also apply to this study.

The total group of respondents (n = 216) was uncertain about the combined functional and symbolic performance failure of their appliances (mean value = 2.67), implying that they were undecided whether their appliances' combined functional and symbolic performance was less than their initial expectations for product performance.

Men were relatively uncertain about the combined functional and symbolic performance failure of their appliances (mean value = 2.84), implying that they were undecided whether their appliances' combined functional and symbolic performance was less than their initial expectations for product performance. Females were less uncertain about their appliances' combined functional and symbolic performance failure (mean value = 2.60), implying that they were less undecided; for them, their appliances' combined functional and symbolic performance was less than their initial expectation for product performance. Considering the results of the ANOVA, a significant difference exists between males and females regarding their post-purchase evaluation of their appliances' combined functional and symbolic performance in terms of their initial expectations concerning product performance (p-value = 0.0098). (Females were significantly more certain about their appliances' combined functional and symbolic performance failure than men).

The respondents from the 65 to 83 years age group were relatively uncertain about the combined functional and symbolic performance of their appliances (mean value = 2.75), implying that they were undecided whether their appliances' combined functional and symbolic performance was less than their initial expectations for product performance. The respondents from the 25 to 30 years age, 31 to 45 years age group, and 46 to 55 years age group, were less uncertain about the combined functional and symbolic performance of their appliances (respective mean values: 2.68, 2.67 and 2.64), implying that these age groups were less undecided whether their appliances' combined functional and symbolic performance was less than their initial expectations for product performance. However, no significant differences exist between the various age groups regarding their evaluation of their appliances' combined functional and symbolic performance in terms of their initial expectations concerning product performance respectively (p-value = 0.9974).

The respondents from the Grade 12/Standard 10 group/NTCIII or less group agreed about the combined functional and symbolic performance of their appliances (mean value = 2.31), implying that their appliances' combined functional and symbolic performance was less than their initial expectation for product performance. The respondents from the Grade 12 and an

additional certificate(s)/diploma(s) group and the Bachelors degree/Postgraduate qualification group were less certain about the combined functional and symbolic performance of their appliances (respective mean values: 2.66 and 2.86), implying that they were undecided whether their appliances' combined functional and symbolic performance was less than their initial expectation(s) for product performance. However, no significant differences exist between the, level of education groups regarding their evaluation of their appliances' combined functional and symbolic performance in terms of their initial expectations concerning product performance respectively (p-values = 0.0599).

The respondents from the R 2 000 – R 5 000 household income group agreed about the combined functional and symbolic performance of their appliances (mean value = 2.38), implying that their appliances' combined functional and symbolic performance was less than expected. The respondents from the R 5 001 – R 10 000 household income group and the R 10 001 or more household income group were less certain about the combined functional and symbolic performance of their appliances (respective mean values: 2.59 and 2.88), implying that they were undecided whether their appliances' combined functional and symbolic performance was less than their initial expectations for product performance. However, no significant differences exist between the various monthly household income groups regarding their evaluation of their appliances' combined functional and symbolic performance in terms of their initial expectations concerning product performance respectively (p-value = 0.9523).

The black respondents agreed about the combined functional and symbolic performance of their appliances, implying that their appliance's combined functional and symbolic performance was lower than their initial expectation for product performance (mean value = 2.25). The Caucasians were relatively uncertain concerning the combined functional and symbolic performance of their appliances (mean value = 2.86), implying that they were undecided whether their appliances' combined functional and symbolic performance was less than their initial expectations for product performance. A significant difference exist between the blacks and the Caucasians regarding their evaluation of their appliances' combined functional and symbolic performance in terms of their initial expectations concerning product performance (p-value = 0.0001). (Black respondents were mere certain about the combined functional and symbolic performance of their appliances than Caucasian respondents).

Sub-objective 1.3 To describe consumers' degree of dissatisfaction experienced concerning the functional/symbolic performance failure of household appliances

Respondents were asked to indicate their level of dissatisfaction experienced when their appliances performed faulty or poorly (Question 7, Section B – Addendum A). The results are summarised in Table 5.8.

**TABLE 5.8: LEVEL OF DISSATISFACTION EXPERIENCED WHEN THE APPLIANCES PERFORMED FAULTY OR POORLY**

| Level of dissatisfaction experienced | Frequency | Percentage | Percentage n = 215 | p-value z-test for equal proportions |
|---|---|---|---|---|
| Slightly dissatisfied | 13 | 6.05 | 23.72 | 0.0001* |
| Moderately dissatisfied | 38 | 17.67 | | |
| Very dissatisfied | 112 | 52.09 | 76.28 | |
| Extremely dissatisfied | 52 | 24.19 | | |
| Total | 215 | 100.00 | 100.00 | |

n = 216 Frequency missing = 1

* Significant on the 5% level

A total of 6.05% of the respondents were slightly dissatisfied and 17.67% of the respondents were moderately dissatisfied with the faulty/poor performance of their specific appliances. It is clear that 52.09% of the respondents were very dissatisfied and 24.19% of the respondents experienced extreme dissatisfaction concerning the faulty/poor performance of their specific appliances. When combining the categories of slightly dissatisfied with moderately dissatisfied (6.05% + 17.67%) and very dissatisfied with extremely dissatisfied (52.09% + 24.19%), it is evident that 23.72% and 76.28% respondents fell within these two larger categories respectively. The results of the z-test for equal proportions indicate that a significant difference exists between these proportions (p-value = 0.0001) (refer to Table 5.8). Significantly more respondents were very to extremely dissatisfied compared to the respondents who were slightly to moderately dissatisfied. The majority of the respondents' (76.28%) level of dissatisfaction varied between very to extremely dissatisfied, creating the expectation that respondents would engage in formal complaint action in addition to private complaint action. The literature on complaint behaviour confirms, however, that complaint action is not necessarily determined by the level of dissatisfaction experienced, but that other intermediate factors also have a major role to play (Singh, 1988; Halstead & Dröge, 1991; Morel *et al.,* 1997).

## 5.4 RESULTS OF OBJECTIVE 2

Objective 2: To describe the nature of, and the reasons for, dissatisfied consumers' complaint behaviour concerning the performance failure of major electrical household appliances

Sub-objective 2.1 To describe the types of consumer complaint behaviour responses that dissatisfied consumers engage in concerning their dissatisfaction with the functional/symbolic performance failure of major electrical household appliances

Respondents were asked whether they took any action (i.e. talked to friends and family, used another brand name, stopped supporting the retailer, contacted the retailer/manufacturer/a repair service/a consumer protection organisation, wrote a complaint letter and/or contacted a legal representative), or no action at all (Question 1, Section C – Addendum A). The results are shown in Table 5.9.

**TABLE 5.9: ACTIONS TAKEN VERSUS NO ACTION TAKEN**

| Action/no action | Frequency | Percentage |
|---|---|---|
| Took action | 173 | 80.09 |
| Took no action | 43 | 19.91 |
| Total | 216 | 100.00 |

n = 216

Concerning the action versus no action response options, the results indicate that 80.09% of the respondents took action, and 19.91% respondents did not take any action.

Where respondents took action (n = 173), they were also asked to indicate the type of actions that they engaged in terms of Day and Landon's (1977) private and public action categories. Questions 2 to 10, Section C (Addendum A) determined whether respondents took part in private action (i.e. talked to friends and family, used another brand name, stopped supporting the retailer) and/or public action (i.e. contacting the retailer/manufacturer/a repair service/a consumer protection organisation, writing a complaint letter and/or contacting a legal representative) or not. For each of these questions, respondents had to indicate "yes" or "no".

The results for the types of public action and private action appear in Table 5.10.

**TABLE 5.10: ACTIONS TAKEN IN TERMS OF PRIVATE AND PUBLIC ACTION CATEGORIES**

| Types of private and/or public action taken | Number of responses | Percentage n1 = 520 | Total responses | Percentage n1 = 520 | p-value z-test for equal proportions |
|---|---|---|---|---|---|
| **Private action** | | | | | |
| Told friends, family and/or acquaintances about the bad experience | 154 | 29.62 | 293 | 56.35 | 0.0036* |
| Decided to use another brand name | 80 | 15.38 | | | |
| Stopped supporting the retailer where the appliance was purchased | 59 | 11.35 | | | |
| **Public action** | | | | | |
| Contacted the retailer/manufacturer to obtain redress (repairs/a replacement/a refund) | 110 | 21.15 | 227 | 43.65 | |
| Contacted the retailer/manufacturer to complain for reasons other than seeking redress | 56 | 10.77 | | | |
| Contacted a repair service other than that supplied by the retailer or manufacturer | 55 | 10.58 | | | |
| Contacted a consumer protection organisation/department | 3 | 0.58 | | | |
| Wrote a letter to the press (newspaper, magazine etc.) or to a consumer complaint website | 2 | 0.38 | | | |
| Contacted a legal representative | 1 | 0.19 | | | |
| Total | 520 | 100.00 | 520 | 100.00 | |

n = 173 (number of respondents who took action)
n1 = total number of responses

* Significant on the 5% level

While 173 respondents did take action, the number of responses is shown as 520, since respondents could select more than one response option.

It is evident from Table 5.10 that the respondents were mostly inclined to tell their friends, family and/or acquaintances about the faulty/poor appliance. One hundred and fifty four (154) of the 173 respondents (29.62% of the responses) indicated that they engaged in negative word-of-mouth concerning the faulty/poor appliance. It is, however, also clear that 110 of the 173 respondents (21.15% of the responses) decided to seek redress by contacting the retailer/manufacturer. Eighty (80) of the 173 respondents (15.38% of the responses) decided to use another brand name, and 59 of the 173 respondents (11.35% of the responses) stopped supporting the retailer where the appliance was purchased. Fifty six (56) of the 173 (10.77% of the responses) contacted the retailer/manufacturer to complain for reasons other than seeking redress, and 55 of the 173 respondents (10.58% of the responses) contacted a repair service other than that supplied by the retailer or manufacturer. Hardly any

respondents contacted a consumer protection organisation/department, wrote a letter to the press or to a consumer complaint website, or contacted a legal representative.

When grouping the indicators for private action and public action respectively, 56.35% of the 520 responses indicate that private (hidden) action was taken, and 43.64% of the 520 responses indicate that public action was taken (refer to Table 5.10). The result of the z-test for equal proportions suggests that significant differences exist between the number of responses for private versus public action ($p = 0.0036$). Respondents took significantly more private action (Told friends, family and/or acquaintances about the bad experience, Decided to use another brand name, Stopped supporting the retailer where the appliance was purchased) than public action. Respondents who took public action, rather contacted retailers/manufacturers to obtain redress or to complain for reasons other than seeking redress, and to a lesser degree contacted repair services, than to take more formal public action such as contacting a consumer protection organisation/department, writing a letter to the press or to a consumer complaint website, or contacting a legal representative.

Sub-objective 2.2 To describe dissatisfied consumers' reasons for engaging in consumer complaint behaviour concerning the functional/symbolic performance failure of major electrical household appliances

Where respondents indicated "yes" to taking no action or taking part in private and/or public actions, they were asked to provide the reasons for the particular action/s (Questions 1 to 10, Section C [follow-up questions] – Addendum A). Respondents had to cross as many response options as applicable and to provide other reasons if they were relevant.

By looking at the cognitive and emotional qualities underlying the reasons for consumers' complaint behaviour, one can determine whether the particular complaint actions were driven by mainly cognitive reasoning, emotional reasoning, or a combination of both types of reasoning. Reasoning (ways of thinking) in this sense refers to mental processes.

In the following paragraphs, consumers' reasons for engaging in particular complaint actions are described. Information in this regard appears in Tables 5.11-5.12, 5.14, 5.16, 5.18-5.19, 5.21-5.24. Additionally, these reasons are explained in terms of the cognitive and emotional types of reasoning underlying these reasons. Where sufficient responses were obtained, z-tests for equal proportions were performed (where applicable) to determine whether significant differences exist between the emotional versus the cognitive types of reasoning employed. Information in this regard appears in Tables 5.13, 5.15, 5.17, and 5.20.

Table 5.11 indicates respondents' reasons for not taking any action (Question 1, Section C [follow-up question] – Addendum A).

**TABLE 5.11: REASONS FOR NOT TAKING ANY ACTION**

| Reasons for no action | Number of responses | Percentage n1 = 62 |
|---|---|---|
| I did not think it was worth the time and effort/hassle to take action | 26 | 41.94 |
| I did not think I could get anyone to do anything about it | 1 | 1.61 |
| I wanted to do something about it but never got around to it | 10 | 16.13 |
| I did not know what I could do about it | 6 | 9.68 |
| I did not know where I could get help | 1 | 1.61 |
| The appliance's guarantee had expired | 15 | 24.19 |
| I thought the same problem would surface again even if the faulty component were to be replaced | 1 | 1.61 |
| I thought the problem would go away once I treated it in the correct manner | 2 | 3.23 |
| Total | 62 | 100.00 |

n = 43
n1 = total number of responses

While 43 respondents did not take any action, 62 responses were obtained since respondents could select as many reasons as applicable. It is clear that 41.94% responses were obtained for "I did not think it was worth the time and effort/hassle to take action" and 24.19% responses were obtained for "the appliance's guarantee had expired". A total of 16.13% responses were obtained for "I wanted to do something but never got around it" and 9.68% responses were obtained for "I did not know what I could do about it". Only 1.61% responses was obtained for "I did not know where I could get help" and for "I did not think I could get anyone to do anything about it", respectively. Where respondents could provide their own reasons, only 1.61% responses were obtained for "I thought the same problem would surface again even if the faulty component were to be replaced". Additionally, only 3.23% responses were obtained for "I thought the problem would go away once I treated the appliance in the correct manner".

The reasons for taking no action were directed by cognitive reasoning only. It should be noted that respondents could provide other reasons when applicable, but no additional reasons related to emotional reasoning were provided.

Table 5.12 shows respondents' reasons for telling friends, family and/or acquaintances about the bad experience (Question 2, Section C [follow-up question] – Addendum A).

**TABLE 5.12: REASONS FOR TELLING FRIENDS, FAMILY AND/OR ACQUAINTANCES ABOUT THE BAD EXPERIENCE**

| Reasons for negative word-of-mouth | Number of responses | Percentage n1 = 234 |
|---|---|---|
| To warn other people against the brand name/manufacturer/retailer | 73 | 31.20 |
| To feel less disappointed, since the appliance was expensive and supposed to last longer | 81 | 34.62 |
| To get rid of my anger/frustration | 67 | 38.63 |
| To see what their opinion was about taking further action | 4 | 1.71 |
| To warn them to strictly follow the appliance's prescribed instructions | 4 | 1.71 |
| To find out if any of them have had a similar problem | 5 | 2.14 |
| Total | 234 | 100.00 |

n = 154
n1 = total number of responses

While a total of 154 respondents told their friends, family and/or acquaintances about the bad experience, 234 responses were obtained since respondents could select as many reasons as applicable. It is clear that 34.62% responses were obtained for wanting "to feel less disappointed, since the appliance was expensive and supposed to last longer". A total of 38.63% responses were obtained for wanting "to get rid of my anger/frustration" and 31.20% responses were obtained for wanting "to warn other people against the brand name/manufacturer/retailer". Where respondents could provide their own reasons, only 1.71% responses were obtained for wanting "to see what their opinion was about taking further action", and wanting "to warn them to strictly follow the appliance's prescribed instructions", respectively. Only 2.14% responses were obtained for wanting "to find out if any of them have had a similar problem".

Table 5.13 shows the comparison of respondents' reasons for telling friends, family and/or acquaintances about the bad experience in terms of the type of reasoning employed.

**TABLE 5.13: COMPARISON OF REASONS FOR TELLING FRIENDS, FAMILY AND/OR ACQUAINTANCES ABOUT THE BAD EXPERIENCE IN TERMS OF THE TYPE OF REASONING EMPLOYED**

| Type of reasoning | Reasons for negative word-of-mouth | Number of responses | Total responses | Percentage n1 = 234 | p-value z-test for equal proportions |
|---|---|---|---|---|---|
| Emotional reasoning | To feel less disappointed, since the appliance was expensive and supposed to last longer | 81 | 148 | 63.25 | < 0.0001* |
| | To get rid of my anger/frustration | 67 | | | |
| Cognitive reasoning | To warn other people against the brand name/manufacturer/retailer | 73 | 86 | 36.75 | |
| | To see what their opinion was about taking further action | 4 | | | |
| | To warn them to strictly follow the appliance's prescribed instructions | 4 | | | |
| | To find out if any of them have had a similar problem | 5 | | | |
| | Total | 234 | 234 | 100.00 | |

n = 154
n1 = total number of responses
* Significant on the 5% level

The reasons "to feel less disappointed, since the appliance was expensive and supposed to last longer" and "to get rid of my anger/frustration" can be considered to be emotional reasoning. The remainder of the reasons can be considered to be cognitive reasoning. The reasons for telling friends, family and/or acquaintances about the bad experience were directed by both cognitive and emotional types of reasoning. However, emotional reasoning was significantly more often employed compared to cognitive reasoning, as indicated by results of the z-test for equal proportions ($p < 0.0001$).

Table 5.14 shows respondents' reasons for using another brand name (Question 3, Section C [follow-up question] – Addendum A).

**TABLE 5.14: REASONS FOR USING ANOTHER BRAND NAME**

| Reasons for using another brand name | Number of responses | Percentage n1 = 91 |
|---|---|---|
| I considered the brand name not reliable anymore | 76 | 83.52 |
| To get rid of my anger/frustration | 6 | 6.59 |
| To punish/hurt the manufacturer | 7 | 7.69 |
| To choose a user-friendly product | 1 | 1.10 |
| I could afford a more expensive brand name | 1 | 1.10 |
| Total | 91 | 100.00 |

n = 80 n1 = total number of responses

Although a total of 80 respondents decided to use another brand name, 91 responses were obtained since respondents could select as many reasons as applicable. A majority of 83.52% responses were obtained for "I considered brand name not reliable anymore". Only 6.59% responses were obtained for wanting "to get rid of my anger/frustration" and just 7.69% responses were obtained for wanting "to punish/hurt the manufacturer". Where respondents could provide their own reasons for using another brand name, only 1.10% responses were obtained for wanting to "choose a user-friendly product" and for "I could afford a more expensive brand name", respectively.

Table 5.15 shows the comparison of respondents' reasons for using another brand name in terms of the type of reasoning employed.

**TABLE 5.15: COMPARISON OF REASONS FOR USING ANOTHER BRAND NAME IN TERMS OF THE TYPE OF REASONING EMPLOYED**

| Type of reasoning | Reasons for using another brand name | Number of responses | Total responses | Percentage n1 = 91 | p-value z-test for equal proportions |
|---|---|---|---|---|---|
| Emotional reasoning | To get rid of my anger/frustration | 6 | 13 | 14.29 | <0.0001* |
| | To punish/hurt the manufacturer | 7 | | | |
| Cognitive reasoning | I considered the brand name not reliable anymore | 76 | 78 | 85.71 | |
| | To choose a user-friendly product | 1 | | | |
| | I could afford a more expensive brand name | 1 | | | |
| | Total | 91 | 91 | 100.00 | |

n = 80
n1 = total number of responses

* Significant on the 5 % level

The reasons "to punish/hurt the manufacturer" and "to get rid of my anger/frustration" are considered to be emotional reasoning. The remainder of the reasons are considered to be cognitive reasoning. The reasons for using another brand name were directed by both cognitive and emotional reasoning. However, cognitive reasoning was significantly more often employed compared to emotional reasoning, as indicated by the results of the z-test for equal proportions ($p < 0.0001$).

Table 5.16 indicates respondents' reasons for not supporting the retailer (Question 4, Section C [follow-up question] – Addendum A).

**TABLE 5.16: REASONS FOR NOT SUPPORTING THE RETAILER**

| Reasons for not supporting the retailer | Number of responses | Percentage n1 = 62 |
|---|---|---|
| To punish/hurt the retailer | 4 | 6.45 |
| To get rid of my anger/frustration | 4 | 6.45 |
| Because I felt that I could not trust the retailer anymore | 54 | 87.103 |
| Total | 62 | 100.00 |

n = 59
n1 = total number of responses

A total of 59 respondents no longer supported the retailer, but 62 responses were obtained since respondents could select as many reasons as applicable. A majority of 87.10% responses were obtained for "I felt that I could no longer trust the retailer". Only 6.45% responses were obtained for wanting "to punish/hurt the retailer" and for wanting "to get rid of my anger/frustration" respectively.

Table 5.17 shows the comparison of respondents' reasons for not supporting the retailer in terms of the type of reasoning employed.

**TABLE 5.17: COMPARISON OF REASONS FOR NOT SUPPORTING THE RETAILER IN TERMS OF THE TYPE OF REASONING EMPLOYED**

| Type of reasoning | Reasons for not supporting the retailer | Number of responses | Total responses | Percentage n1 = 62 | p-value z-test for equal proportions |
|---|---|---|---|---|---|
| Emotional reasoning | To punish/hurt the retailer | 4 | 8 | 12.90 | < 0.0001* |
| | To get rid of my anger/frustration | 4 | | | |
| Cognitive reasoning | Because I felt that I could not trust the retailer anymore | 54 | 54 | 87.10 | |
| | Total | 62 | 62 | 100.00 | |

n = 59
n1 = total number of responses
* Significant on the 5 % level

The reasons "to punish/hurt the manufacturer" and "to get rid of my anger/frustration" are considered to be emotional reasoning. The remainder of the reasons are considered to be cognitive reasoning. The reasons for not supporting the retailer were directed by both cognitive and emotional reasoning. However, cognitive reasoning was significantly more often employed compared to emotional reasoning, as indicated by the results of the z-test for equal proportions ($p < 0.0001$).

Table 5.18 shows respondents' reasons for contacting the retailer/manufacturer to obtain redress (repairs/a replacement/a refund) (Question 5, Section C [follow-up question] – Addendum A).

**TABLE 5.18: REASONS FOR CONTACTING THE RETAILER/MANUFACTURER TO OBTAIN REDRESS (REPAIRS/A REPLACEMENT/A REFUND)**

| Reasons for contacting the retailer/manufacturer to obtain redress | Number of responses | Percentage n1 = 165 |
|---|---|---|
| The appliance was still under guarantee | 83 | 50.30 |
| The appliance's guarantee had expired and I expected the appliance to last longer | 15 | 9.09 |
| The appliance did not provide value for money | 27 | 16.36 |
| The household could not function properly without the appliance | 40 | 24.24 |
| Total | 165 | 100.00 |

n = 110
n1 = total number of responses

A total of 110 respondents contacted the retailer/manufacturer to obtain redress, but 165 responses were obtained as respondents could select as many reasons as applicable. Table 5.18 shows that 50.30% responses were obtained for "the appliance was still under guarantee". A total of 24.24% responses were obtained for "the household could not function properly without the appliance" and 16.36% responses were obtained for "the appliances did not provide value for money". Only 9.09% responses were obtained for "the appliance's guarantee had expired and I expected the appliance to last longer".

The reasons for contacting the retailer/manufacturer to obtain are directed by cognitive reasoning only. It should be noted that respondents could provide other reasons when applicable, but no additional reasons were provided.

Table 5.19 shows respondents' reasons for contacting the retailer/manufacturer to complain for reasons other than seeking redress (Question 6, Section C [follow-up question] – Addendum A).

**TABLE 5.19: REASONS FOR CONTACTING THE RETAILER/MANUFACTURER TO COMPLAIN FOR REASONS OTHER THAN SEEKING REDRESS**

| Reasons for contacting the retailer/manufacturer to complain for reasons other than seeking redress | Number of responses | Percentage n1 = 88 |
|---|---|---|
| To make an objection after my effort to obtain redress/compensation for the appliance failed | 19 | 21.59 |
| To get rid of my anger/frustration | 10 | 11.36 |
| To stand up for my rights as a consumer | 37 | 42.05 |
| To get an apology from the retailer/manufacturer | 20 | 22.73 |
| To get assistance concerning the after-sale service division (after-sale guarantee service) | 1 | 1.14 |
| To make the manufacturer aware about such an incident so that he can prevent it from happening again | 1 | 1.14 |
| Total | 88 | 100.00 |

n = 56
n1 = total number of responses

Although a total of 56 respondents contacted the retailer/manufacturer to complain for reasons other than seeking redress, 88 responses were obtained since respondents could select as many reasons as applicable. A total of 42.05% responses were obtained for wanting “to stand up for my rights as a consumer”. Only 22.73% responses were obtained for wanting “to get an apology from the retailer”, and 21.59% 88 responses were obtained for wanting “to make an objection after my effort to obtain redress/compensation for the appliance failed”. Only 11.39% responses were obtained for wanting “to get rid of my anger/frustration”. Where respondents could indicate other reasons, only 1.14% responses was obtained for wanting “to get assistance concerning the after-sale service division” and wanting “to make the manufacturer aware about the specific incident so that they can prevent it from happening again” respectively.

Table 5.20 shows the comparison of respondents’ reasons for contacting the retailer/manufacturer to complain for reasons other than seeking redress in terms of the type of reasoning employed.

**TABLE 5.20: COMPARISON OF REASONS FOR CONTACTING THE RETAILER/MANUFACTURER TO COMPLAIN FOR REASONS OTHER THAN SEEKING REDRESS IN TERMS OF THE TYPE OF REASONING EMPLOYED**

| Type of reasoning | Reasons for contacting the retailer/manufacturer to complain for reasons other than seeking redress | Number of responses | Total responses | Percentage n1 = 88 | p-value z-test for equal proportions |
|---|---|---|---|---|---|
| Emotional reasoning | To get rid of my anger/frustration | 10 | 10 | 11.36 | < 0.0001* |
| Cognitive reasoning | To make an objection after my effort to obtain redress/compensation for the appliance failed | 19 | 78 | 88.64 | |
| | To stand up for my rights as a consumer | 37 | | | |
| | To get an apology from the retailer/manufacturer | 20 | | | |
| | To get assistance concerning the after-sale service division (after-sale guarantee service) | 1 | | | |
| | To make the manufacturer aware about such an incident so that he can prevent it from happening again | 1 | | | |
| | Total | 88 | 88 | 100.00 | |

n = 56
n1 = total number of responses
* Significant on the 5 % level

The reason “to get rid of my anger/frustration” is considered to be emotional reasoning. The remainder of the reasons are considered to be cognitive reasoning, although emotionally laden, since the aim was to confront the specific party involved. The reasons for contacting the retailer/manufacturer to complain for reasons other than seeking redress for the appliance were directed by cognitive and emotional reasoning. However, cognitive reasoning was significantly more often employed compared to emotional reasoning, as indicated by the results of the z-test for equal proportions ($p < 0.0001$).

Table 5.21 shows respondents’ reasons for contacting a repair service other than that supplied by the retailer or manufacturer (Question 7, Section C [follow-up question] – Addendum A).

**TABLE 5.21: REASONS FOR CONTACTING A REPAIR SERVICE OTHER THAN THAT SUPPLIED BY THE RETAILER OR MANUFACTURER**

| Reasons for contacting a repair service other than that supplied by the retailer or manufacturer | Number of responses | Percentage n1 = 81 |
|---|---|---|
| The appliance's guarantee had expired and the retailer/manufacturer was not responsible for the appliance anymore | 30 | 37.04 |
| The household could not function properly without the appliance | 31 | 38.27 |
| The repair service was less expensive than the retailer/manufacturer's service | 16 | 19.75 |
| Too much trouble to go back to the retailer or manufacturer | 4 | 4.94 |
| Total | 81 | 100.00 |

n = 55
n1 = total number of responses

A total of 55 respondents contacted a repair service other than that supplied by the retailer or manufacturer, but 81 responses were obtained as respondents could select as many reasons as applicable. A total of 38.27% responses were obtained for "the household could not function properly without the appliance". A total of 37.04% responses were obtained for "the appliance's guarantee had expired and the retailer/manufacturer was not responsible for the appliance anymore". Additionally, 19.75% responses were obtained for "the repair service was less expensive than the retailer/manufacturer's service". Where other reasons were supplied, only 4.94% responses were obtained for "too much trouble to go back to the retailer or manufacturer".

The reasons for contacting a repair service other than that supplied by the retailer or manufacturer are directed by cognitive reasoning only. It should be noted that respondents could provide other reasons when applicable, but no additional reasons related to emotional reasoning were provided.

Table 5.22 shows respondents' reasons for contacting a consumer protection organisation/department (Question 8, Section C [follow-up question] – Addendum A).

**TABLE 5.22: REASONS FOR CONTACTING A CONSUMER PROTECTION ORGANISATION/DEPARTMENT**

| Reasons for contacting a consumer protection organisation/department | Number of responses | Percentage n1 = 4 |
|---|---|---|
| To seek assistance in obtaining redress (refund, replacement, repairs) for the appliance from the retailer or manufacturer since my direct efforts to obtain redress failed | 2 | 50.00 |
| To stand up for my rights as a consumer | 2 | 50.00 |
| To get rid of my anger/frustration | 0 | 0.00 |
| Total | 4 | 100.00 |

n = 3
n1 = total number of responses

Only three respondents contacted a consumer protection organisation/department, but four responses were obtained because respondents could select as many reasons as applicable. Only two out of four responses were obtained for wanting to “seek assistance in obtaining redress for appliances from retailers or manufacturers since my direct efforts to obtain redress failed” and wanting “to stand up for my rights as a consumer” respectively. No responses were obtained for wanting to “get rid of my anger/frustration”.

The reasons for contacting a consumer protection organisation/department” are directed by cognitive reasoning only. It should be noted that respondents could provide other reasons when applicable, but no additional reasons were provided. Since no responses were obtained for emotional reasoning, no calculations were performed to determine whether significant differences exist between cognitive versus emotional reasoning.

Table 5.23 shows respondents’ reasons for writing a letter to the press (newspaper, magazine etc.) or to a consumer complaint website (Question 9, Section C [follow-up question] – Addendum A).

**TABLE 5.23: REASONS FOR WRITING A LETTER TO THE PRESS (NEWSPAPER, MAGAZINE ETC.) OR TO A CONSUMER COMPLAINT WEBSITE**

| Reasons for writing a letter to the press (newspaper, magazine etc) or to a consumer complaint website | Number of responses | Percentage n1 = 3 |
|---|---|---|
| To seek assistance in obtaining redress (refund, replacement, repairs) for the appliance from the retailer or manufacturer since my direct efforts to obtain redress failed | 0 | 0.00 |
| To stand up for my rights as a consumer | 0 | 0.00 |
| To warn other people against the brand name/manufacturer/retailer | 1 | 33.33 |
| To get rid of my anger/frustration | 2 | 66.67 |
| Total | 3 | 100.00 |

n = 2
n1 = total number of responses

Although only two respondents wrote a letter to the press (newspaper, magazine etc.) or to a consumer complaint website, three responses were obtained since respondents could select as many reasons as applicable. Only one out of three responses was obtained for wanting "to warn other people against the brand name/manufacturer/retailer" and only two responses were obtained for wanting "to get rid of my anger/frustration". No responses were obtained for wanting "to seek assistance in obtaining redress for the appliance from the retailer or manufacturer since my direct efforts to obtain redress failed" and for wanting "to stand up for my rights as a consumer".

The reasons "to get rid of my anger/frustration" and "to warn other people against the brand name/manufacturer/retailer" are considered to be emotional and cognitive reasoning respectively. Since negligible numbers of responses were obtained for writing a letter to the press (newspaper, magazine etc.) or to a consumer complaint website, no calculations were performed to determine whether significant differences exist between cognitive versus emotional reasoning.

Table 5.24 shows respondents' reasons for contacting a legal representative (Question 10, Section C [follow-up question] – Addendum A).

**TABLE 5.24: REASONS FOR CONTACTING A LEGAL REPRESENTATIVE**

| Reasons for contacting a legal representative | Number of responses | Percentage n1 = 2 |
|---|---|---|
| To seek assistance in obtaining redress (refund, replacement, repairs) for the appliance from the retailer or manufacturer since my direct efforts to obtain redress failed | 0 | 0.00 |
| To stand up for my rights as a consumer | 1 | 50.00 |
| To warn other people against the brand name/manufacturer/retailer | 0 | 0.00 |
| To get rid of my anger/frustration | 1 | 50.00 |
| Total | 2 | 100.00 |

n = 1
n1 = total number of responses

Only one respondent contacted a legal representative, but two responses were obtained as respondents could select as many reasons as applicable. One response was obtained for wanting “to stand up for my rights as a consumer” and one for wanting “to get rid of my anger/frustration”. No responses were obtained for wanting “to seek assistance in obtaining redress for the appliance from the retailer or manufacturer since my direct efforts to obtain redress failed” or for wanting “to warn other people against the brand name/manufacturer/retailer”.

The reasons “to get rid of my anger/frustration” and “to stand up for my rights as a consumer” are considered emotional and cognitive reasoning respectively. Since only one response was obtained for contacting a legal representative, no calculations were performed to determine whether significant differences exist between cognitive versus emotional reasoning.

## 5.5 RESULTS OF OBJECTIVE 3

Objective 3: To describe the relationship between causal attribution and dissatisfied consumers’ complaint behaviour concerning the performance failure of major electrical household appliances

Sub-objective 3.1 To describe dissatisfied consumers’ attributions for the functional/symbolic performance failure of major electrical household appliances

Respondents were asked to provide the most important cause (from a list of causes provided) for the appliance’s failure or poor performance, or to provide another cause if none

of the given causes applied (Question 8, Section B – Addendum A). The results are summarised in Table 5.25.

**TABLE 5.25: RESPONDENTS' PERCEPTION OF THE MOST IMPORTANT CAUSE FOR THE APPLIANCES' FAILURE OR POOR PERFORMANCE**

| Most important cause for the appliances' failure or poor performance | Frequency | Percentage |
|---|---|---|
| The purchaser of the appliance did not do enough research before purchasing it | 14 | 6.51 |
| The manufacturer provided an appliance with poor styling and design features | 34 | 15.81 |
| Flaws/defects are inevitable with complicated appliances | 47 | 21.86 |
| The manufacturer used inferior materials/finishes (trimmings) | 33 | 15.35 |
| The person operating the appliance mistreated (abused) it | 5 | 2.33 |
| The person operating the appliance did not know how to use it | 4 | 1.86 |
| The manufacturer provided poor workmanship | 68 | 31.63 |
| The person operating the appliance did not follow the prescribe operating instructions | 5 | 2.33 |
| Other reasons | 5 | 2.33 |
| Total | 215 | 100 |

n = 215
Frequency missing = 1

A total of 31.63% of the respondents selected poor workmanship on the part of the manufacturer as the most important cause for the appliances' failure or poor performance. A total of 21.86% of the respondents indicated the inevitability of flaws and defects with complicated appliances as the most important cause for the appliances' failure or poor performance. A total of 15.81% and a total of 15.35% of the respondents attributed the failure/poor performance of their appliances to the provision of poor styling and design features and the manufacturer's use of inferior materials/finishes (trimmings) respectively. Thus, 84.65 % (31.63% + 21.86% +15.81% +15.35%) of the respondents attributed the failure or poor performance of the appliance to causes that are related to the manufacturer. A total of 6.51% of the respondents did not do enough research before purchasing the appliance, 2.33% mistreated (abused) the appliance, and 1.86% did not know how to use their appliances properly. Thus, 13.03% (6.51% + 2.33% +2.33 + 1.86%) of the respondents attributed product failure to the person operating the appliance (human error). Only 2.33 % of the respondents attributed the cause of product failure to other causes.

The majority of the respondents (84.65 %) held manufactures responsible for the failure/poor performance of appliances as compared to human error (13.03%) and other reasons (2.33%), which might be indicative of self-serving attributional bias (i.e. an attribution fallacy where people take preference to attribute bad outcomes (in this case product failures) to external factors (manufacturers)).

Sub-objective 3.2 To describe the causal dimensional characteristics of dissatisfied consumers' attributions for the functional/symbolic performance failure of major electrical household appliances

The respondents were asked to rate their own attributions (i.e. reasons) for the appliances' failure subjectively on an adapted version of Russell's (1982) Causal Dimension Scale to facilitate the researcher's assessment of the dimensional quality of respondents' causes (attributions) (Question 9, Section B – Addendum). The three items for locus, the three items for stability and the three items for controllability were summated respectively to obtain a combined score (out of 27) for each respective dimension. Refer to Russell's Causal Dimension Scale (Chapter 4, Table 4.1) and the adapted version of Russell's scale (Addendum A, Question 9). Next, a uni-variate analysis for the locus, stability and controllability dimensions was performed. The results appear in Table 5.26.

**TABLE 5.26: UNI-VARIATE ANALYSIS FOR LOCUS, STABILITY, CONTROLLABILITY**

| **Causal dimensions** | | | | | |
|---|---|---|---|---|---|
| Locus | | Stability | | Controllability | |
| n | Mean | n | Mean | n | Mean |
| 216 | 8.02 | 215 * | 13.63 | 216 | 14.86 |

A low score (i.e. 3-9 out of 27) on the locus dimension indicates that causes were perceived as external, implying that the cause for the product failure could be attributed either to the manufacturer, retailer or some outside agent in the environment or the situation. Conversely, a high score (i.e. 19-27 out of 27) indicates that causes were perceived as internal, implying that the cause for product failure could be attributed to the consumer. A score between 10-18 out of 27 indicates that the cause was perceived as relatively external (10-13.5 out of 27) to relatively internal (i.e. 13.6-18 out of 27).

A low score (i.e. 3-9 out of 27) on the stability dimension indicates that causes were perceived as unstable, implying that people should be less certain of future product failure if they purchase it again in the future. (If the attribution is unstable, consumers will view it as a once-off problem. Conversely, a high score (i.e. 19-27 out of 27) indicates that causes were perceived as stable, implying that people should expect the product to fail if they purchase it again in the future. A score between 10-18 out of 27 indicates that the cause was perceived as relatively unstable (10-13.5 out of 27) to relatively stable (i.e. 13.6-18 out of 27).

A low score (i.e. 3-9 out of 27) on the controllability dimension indicates that causes were perceived as uncontrollable, implying that both the consumer and other parties such as the manufacturer or retailer could not control the product failure. Conversely, a high score (i.e. 19-27 out of 27) indicates that causes were perceived as controllable, implying that both the consumer and other parties such as the manufacturer or retailer had control over the product failure. A score between 10-18 out of 27 indicates that the cause was perceived as relatively uncontrollable (10-13.5 out of 27) to relatively controllable (i.e. 13.6-18 out of 27).

* Frequency missing = 1

The mean scores for the locus dimension (8.02), stability dimension (13.63) and controllability dimension (14.86) indicate that the respondents perceived the combined causes as external to themselves, relatively stable and relatively controllable.

The Kruskal-Wallis (K-W) one-way analysis of variance (ANOVA) test was performed to compare the mean scores for Russell's Locus, Stability and Controllability dimensions (as the ordinal variable) across the different groups of respondents who selected a particular reason for the product failure (the independent groups). The relatively small sample size of some of the groups justified the use of the K-W one-way ANOVA test. Note that, in statistical terms, the different groups are considered to be different samples of respondents. The responses for the reasons: "the person operating the appliance mistreated (abused) it", "the person operating the appliance did not know how to use it" and "the person operating the appliance did not follow the prescribed operating instructions" were combined to facilitate statistical calculations (i.e. to ensure sufficient cell (sample) size). The combined reasons were labelled "the person operating the appliance mistreated (abused) it". The reasons "the appliance became out of fashion" and "other reasons" had insufficient cell sizes and were therefore excluded from statistical testing. Six independent groups (samples) were thus compared.

The dimensional quality of respondents' attributions for product failures as well as the results of the K-W one-way ANOVA are presented in Table 5.27. The discussion of the results follows in the same order.

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**TABLE 5.27: ASSOCIATION BETWEEN THE PERCEIVED CAUSE(S) FOR PRODUCT FAILURE AND THE SCORES FOR THE LOCUS, STABILITY AND CONTROLLABILITY DIMENSIONS**

| Perceived cause for product failure | n | Causal dimensions | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Locus | | | Stability | | | Controllability | | |
| | | Mean | Std Dev | p-value K-W one-way ANOVA | Mean | Std Dev | p-value K-W one-way ANOVA | Mean | Std Dev | p-value K-W one-way ANOVA |
| The purchaser of the appliance did not do enough research before purchasing it | 14 | 12.64 [c] | 5.62 | <0.0001 * | 16.21 | 6.25 | 0.0416* | 14.50 [ab] | 4.62 | 0.0021* |
| The manufacturer provided an appliance with poor styling and design features | 34 | 9.08 [bc] | 3.72 | | 14.47 | 4.62 | | 15.70 [b] | 5.13 | |
| Flaws/defects are inevitable with complicated appliances | 47 | 7.25 [ab] | 3.51 | | 11.82 | 4.82 | | 12.46 [a] | 4.35 | |
| The manufacturer used inferior materials/finishes (trimmings) | 33 | 7.30 [ab] | 4.35 | | 14.69 | 7.09 | | 16.27 [b] | 5.67 | |
| The person operating the appliance mistreated (abused) it | 14 | 14.78 [c] | 6.86 | | 12.07 | 4.87 | | 18.00 [b] | 5.20 | |
| The manufacturer provided poor workmanship | 68 | 5.89 [a] | 3.26 | | 13.42 | 6.23 | | 15.25 [b] | 4.57 | |

A low score (i.e. 3-9 out of 27) on the locus dimension indicates that causes were perceived as external, implying that the cause for the product failure could be attributed either to the manufacturer, retailer or some outside agent in the environment or the situation. Conversely, a high score (i.e. 19-27 out of 27) indicates that causes were perceived as internal, implying that the cause for product failure could be attributed to the consumer. A score between 10-18 out of 27 indicates that the cause was perceived as relatively external (10-13.5 out of 27) to relatively internal (i.e. 13.6-18 out of 27).

A low score (i.e. 3-9 out of 27) on the stability dimension indicates that causes were perceived as unstable, implying that people should be less certain of future product failure if they purchase it again in the future. (If the attribution is unstable, consumers will view it as a once-off problem. Conversely, a high score (i.e. 19-27 out of 27) indicates that causes were perceived as stable, implying that people should expect the product to fail if they purchase it again in the future. A score between 10-18 out of 27 indicates that the cause was perceived as relatively unstable (10-13.5 out of 27) to relatively stable (i.e. 13.6-18 out of 27).

A low score (i.e. 3-9 out of 27) on the controllability dimension indicates that causes were perceived as uncontrollable, implying that both the consumer and other parties such as the manufacturer or retailer could not control the product failure. Conversely, a high score (i.e. 19-27 out of 27) indicates that causes were perceived as controllable, implying that both the consumer and other parties such as the manufacturer or retailer had control over the product failure. A score between 10-18 out of 27 indicates that the cause was perceived as relatively uncontrollable (10-13.5 out of 27) to relatively controllable (i.e. 13.6-18 out of 27).

Means with different superscripts differ significantly on the 5% level
n = 210

### 5.5.1 The dimensional quality of respondents' attributions for product failure

When comparing the specific causes for the failure of the appliances in terms of their dimensional quality (refer to Table 5.27), it is clear that the group of respondents who:
- attributed the failure of the appliance to the purchaser's lack of research prior to purchasing the appliance, considered the cause as relatively external (12.64), relatively stable (16.21) and relatively controllable (14.5);
- believed that the main cause for the failure of the appliances was due to the manufacturer's poor styling and design features, considered the cause as external (9.08), relatively stable (14.47) and relatively controllable (15.70);
- attributed product failures to the inevitability of product flaws en defects considered it as external (7.25), relatively unstable (11.82) and relatively uncontrollable (12.46);
- blamed appliance failures on manufacturers' use of inferior materials and finishes (trimmings), regarded the cause as external (7.30), relatively stable (14.69) and relatively controllable (16.27);
- believed that the cause for appliance failures was due to their own abuse of the appliance, considered it relatively internal (14.78), relatively unstable (12.07) and relatively controllable (18.00); and
- attributed the appliance's failure to the manufacturer's poor workmanship, considered the cause external (5.89), relatively unstable (13.42) and relatively controllable (15.52).

### 5.5.2 Results of the K-W one-way ANOVA concerning the association between the perceived cause(s) for product failure and the scores for the locus, stability and controllability dimensions

According to the K-W one-way ANOVA, significant differences exist between the various groups regarding their perception of locus ($p = < 0.0001$), stability ($p = 0.0416$) and controllability ($p = 0.0021$) respectively (see Table 5.27).

In the case of the locus dimensions, significant differences exist between:
- poor workmanship on the part of the manufacturer (5.89) and the abuse of the appliance on the part of the person operating it (14.78), and the purchaser's lack of research prior to purchasing the appliance (12.64);

(Differently stated, the two means for the "inevitability of product flaws and defects with complicated appliances" (7.25) and "the manufacturer's use of inferior materials and finishes (trimmings)" (7.30) (labelled $^{ab}$) did not differ significantly form each other nor form "poor workmanship on the part of the manufacturer" (5.89), which was labelled with an $^{a}$, and other causes with a $^{bc}$ (the manufacturer's provision of poor styling and design features (9.08), as

well as form the two means that are identified wit a [c] (the abuse of the appliance on the part of the person operating it (14.78) and the purchaser's lack of research prior to purchasing the appliance (12.64).

Poor workmanship on the part of the manufacturer was perceived as more external (5.89) compared to causes due to the consumer's "wrongdoing", specifically the purchaser's lack of research prior to purchasing the appliance (14.78) and the abuse of the appliance on the part of the person operating it (12.64), which were perceived as less external (i.e. relatively internal).

In the case of the stability dimension, significant differences exist between the different causes. However, the differences between the tied ranks are very small. This implies that the respondents evaluated all the causes for product failure similarly as far as the stability dimension was concerned. That is, all scores fell within the region of 10-17 out of 27 (i.e. between relatively unstable and relatively stable). The inevitability of product flaws and defects with complicated appliances (11.82), the abuse of the appliance on the part of the person operating it (12.07), and poor workmanship on the part of the manufacturer (13.42), were perceived as relatively unstable. The manufacturer's poor styling and design features (14.47), the manufacturer's use of inferior materials and finishes (trimmings) (14.69), and the purchaser's lack of research prior to purchasing the appliance (16.21), were perceived as relatively stable.

In the case of the controllability dimension, significant differences exist between:

- the inevitability of product flaws and defects with complicated appliances (12.46) and poor workmanship on the part of the manufacturer (15.25), the abuse of the appliance on the part of the person operating it (18.00), the manufacturer's use of inferior materials and finishes (trimmings) (16.27) and the manufacturer's poor styling and design features (15.70)
  (Differently stated, the inevitability of product flaws and defects with complicated appliances (which was labelled with an [a]) differs from all those causes that contain only a [b] superscript but not the cause that has an [ab] superscript)

The respondents perceived the inevitability of product flaws and defects with complicated appliances (12.46) as relatively uncontrollable. Poor workmanship on the part of the manufacturer (15.25), the manufacturer's provision of poor styling and design features (15.70), the manufacturer's use of inferior materials and finishes (trimmings) (16.27) and the abuse of the appliance on the part of the person operating it (18.00), were all perceived as relatively controllable.

Sub-objective 3.3 To describe the association between the dimensional characteristics of dissatisfied consumers' attributions for the functional/symbolic performance failure of major electrical household appliances and demographic variables (i.e. gender, age, level of education, monthly household income and culture)

The K-W one-way ANOVA test was performed to compare the mean scores for uni-variate analysis of Russell's Locus, Stability and Controllability dimensions across the different groups of respondents for the different categories of demographic variables. The results are shown in Table 5.28.

### 5.5.3 Results of the K-W one-way ANOVA concerning the uni-variate analysis for the locus, stability and controllability and demographic variables

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**TABLE 5.28: ASSOCIATION BETWEEN THE THE UNI-VARIATE ANALYSIS FOR THE LOCUS, STABILITY AND CONTROLLABILITY AND DEMOGRAPHIC VARIABLES**

| **Demographic variables** | | **n** | **Causal dimensions** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | **Locus** | | | **Stability** | | | **Controllability** | | |
| | | | Mean | Std Dev | p-value K-W one-way ANOVA | Mean | Std Dev | p-value K-W one-way ANOVA | Mean | Std Dev | p-value K-W one-way ANOVA |
| Gender | Male | 68 | 7.80 | 4.89 | 0.3607 | 13.07 | 6.03 | 0.2591 | 14.07 | 5.12 | 0.1042 |
| | Female | 148 | 8.12 | 4.66 | | 13.89 | 5.83 | | 15.22 | 5.17 | |
| Age | 25-30 years | 66 | 8.09 | 3.80 | 0.6719 | 14.15 | 5.66 | 0.6949 | 14.39 | 4.76 | 0.8490 |
| | 31-45 years | 90 | 8.48 | 5.31 | | 13.58 | 6.18 | | 14.63 | 5.26 | |
| | 46-55 years | 42 | 7.66 | 4.60 | | 13.52 | 5.88 | | 15.92 | 5.69 | |
| | 56-83 years | 18 | 6.33 | 4.81 | | 12.22 | 5.50 | | 15.22 | 4.97 | |
| Level of education | Grade 12/Standard 10/NTCIII or less | 45 | 9.57 | 5.19 | 0.2956 | 13.40 | 5.52 | 0.7320 | 16.35 | 5.78 | 0.0874 |
| | Grade 12 and an additional certificate(s)/diploma(s) | 78 | 7.42 | 4.80 | | 14.07 | 6.31 | | 14.00 | 5.58 | |
| | Bachelors degree/Postgraduate qualification | 93 | 7.78 | 4.29 | | 13.37 | 5.75 | | 14.86 | 4.33 | |
| Monthly household income | R 2 000 – R 5 000 | 56 | 10.14 | 5.08 | 0.3393 | 13.41 | 5.19 | 0.2352 | 15.16 | 5.47 | 0.3718 |
| | R 5 001 – R 10 000 | 58 | 7.68 | 4.05 | | 15.05 | 6.07 | | 14.58 | 4.72 | |
| | R 10 001 or more | 102 | 7.05 | 4.54 | | 12.94 | 6.07 | | 14.85 | 5.28 | |
| Culture | Black | 66 | 10.07 | 4.96 | 0.0139* | 14.13 | 5.29 | 0.6102 | 15.62 | 4.98 | 0.0344* |
| | Caucasian | 150 | 7.12 | 4.33 | | 13.41 | 6.14 | | 14.52 | 5.23 | |

A low score (i.e. 3-9 out of 27) on the locus dimension indicates that causes were perceived as external, implying that the cause for the product failure could be attributed either to the manufacturer, retailer or some outside agent in the environment or the situation. Conversely, a high score (i.e. 19-27 out of 27) indicates that causes were perceived as internal, implying that the cause for product failure could be attributed to the consumer. A score between 10-18 out of 27 indicates that the cause was perceived as relatively external (10-13.5 out of 27) to relatively internal (i.e. 13.6-18 out of 27).

A low score (i.e. 3-9 out of 27) on the stability dimension indicates that causes were perceived as unstable, implying that people should be less certain of future product failure if they purchase it again in the future. (If the attribution is unstable, consumers will view it as a once-off problem. Conversely, a high score (i.e. 19-27 out of 27) indicates that causes were perceived as stable, implying that people should expect the product to fail if they purchase it again in the future. A score between 10-18 out of 27 indicates that the cause was perceived as relatively unstable (10-13.5 out of 27) to relatively stable (i.e. 13.6-18 out of 27).

A low score (i.e. 3-9 out of 27) on the controllability dimension indicates that causes were perceived as uncontrollable, implying that both the consumer and other parties such as the manufacturer or retailer could not control the product failure. Conversely, a high score (i.e. 19-27 out of 27) indicates that causes were perceived as controllable, implying that both the consumer and other parties such as the manufacturer or retailer had control over the product failure. A score between 10-18 out of 27 indicates that the cause was perceived as relatively uncontrollable (10-13.5 out of 27) to relatively controllable (i.e. 13.6-18 out of 27).

* Significant on 5% level

The male group attributed the cause for product failure either to the manufacturer, retailer or some outside agent in the environment or the situation (i.e. externally) (locus = 7.80), and perceived the cause as relatively stable (stability = 13.07) and relatively controllable by both the consumer and other parties such as the manufacturer or retailer (controllability = 14.07). However, a similar pattern emerged for female group (locus = 8.12, stability = 13.89, controllability = 15.22). No significant differences exist between these groups with regard to the locus (p = 0.3607), stability (p = 0.2591) and controllability dimensions (p = 0.1042).

The respondents from the 25 to 30 years age group considered the cause for the product failure as external (locus = 8.09), perceived the cause as relatively stable (stability =14.15) and relatively controllable (control = 14.39). A similar pattern emerged for the respondents from the 31 to 45 years age group (locus = 8.48, stability = 13.58, controllability = 14.63) and the 46 to 55 years age group (locus = 7.66, stability = 13.52, controllability = 15.92) respectively. The respondents from the 56 to 83 years age group perceived the cause as more external (locus = 6.33), relatively unstable (stability = 12.22) and relatively controllable (15.22). However, no significant differences exist between these groups with regard to the locus (p = 0.6719), stability (p = 0.6949) and controllability dimensions (p = 0.8490).

The respondents from the Grade 12/Standard 10/NTCIII or less group considered the cause for the product failure as relatively external (locus = 9.57), perceived the cause as relatively unstable (stability = 13.40) and relatively controllable (control = 16.35). The respondents from the Grade 12 and an additional certificate(s)/diploma(s) group (locus = 7.42, stability =14.07, controllability = 14.00) and the Bachelors degree/Postgraduate qualification group (locus = 7.78, stability =13.37, controllability = 14.86) considered the cause for product failure similarly (i.e. external, relatively unstable to relatively stable and relatively controllable). However, no significant differences exist between these groups with regard to the locus (p = 0.2956), stability (p = 0.7320) and controllability dimensions (p = 0.0847).

The respondents from the R 2 000 – R 5 000 household income group considered the cause for the product failure as relatively external (locus = 10.14), perceived the cause as relatively unstable (stability = 13.41) and relatively controllable (control = 15.16). The respondents from the R 5 001 – R 10 000 monthly household income group (locus = 7.68, stability =15.05, controllability = 14.58) and the R 10 001 or more household income group (locus = 7.05, stability =12.94, controllability = 14.85) considered the cause for product failure similarly (i.e. external, relatively unstable to relatively stable and relatively controllable). No significant differences exist between these groups with regard to the locus (p = 0.3393), stability (p = 0.2352) and controllability dimensions (p = 0.3718).

The black group considered the cause for product failure as relatively external (locus = 10.07), and relatively stable (stability = 14.13) and relatively controllable (controllability = 15.62). However, the Caucasian group perceived the cause for product failure as external (locus = 7.12) relatively stable (stability =13.41) and less relatively controllable (controllability = 14.52). Significant differences exist between these groups with regard to the locus (p = 0.0139), and controllability dimensions (p = 0.0344) respectively, but no significant difference exists between these groups concerning stability (p = 0.6102). (The black group considered the cause for product failure as less external and more controllable compared to the Caucasian group).

To conclude, with the exception of culture, the demographic variables seemed to have little significant impact on how respondents attributed causes for product failure.

Sub-objective 3.4 To describe the association between the causal dimensions (i.e. locus, stability and controllability) and dissatisfied consumers' complaint behaviour concerning the functional/symbolic performance failure of major electrical household appliances

The K-W one-way ANOVA test was performed to compare the mean scores for Russell's Locus, Stability and Controllability dimensions across the different groups of respondents who engaged in particular complaint action(s) or not (i.e. the "yes" vs. the "no" groups of respondents for the different complaint actions). Note that, in statistical terms, the different groups are considered to be different samples of respondents. The results are shown in Table 5.29.

### 5.5.4 Results of the K-W one-way ANOVA concerning and the scores for the locus, stability and controllability dimensions and the types of complaint action

**TABLE 5.29: ASSOCIATION BETWEEN THE TYPES OF COMPLAINT ACTION AND THE SCORES FOR THE LOCUS, STABILITY AND CONTROLLABILITY DIMENSIONS**

| **Variables (Types of complaint action)** | **Groups** | **Causal dimensions** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Locus | | | Stability | | | Controllability | | |
| | | Mean | Std Dev | p-value K-W one-way ANOVA | Mean | Std Dev | p-value K-W one-way ANOVA | Mean | Std Dev | p-value K-W one-way ANOVA |
| Took action | Yes (n = 173) | 7.98 | 4.58 | 0.8648 | 13.43 | 5.84 | 0.4063 | 15.08 | 5.09 | 0.1675 |
| | No (n = 42) | 8.18 | 5.30 | | 14.45 | 6.12 | | 13.97 | 5.44 | |
| Told friends, family and/or acquaintances about the bad experience | Yes (n = 154) | 8.31 | 4.62 | 0.0045* | 13.61 | 5.76 | 0.1766 | 15.22 | 5.09 | 0.4557 |
| | No (n = 19) | 5.31 | 3.30 | | 11.94 | 6.41 | | 13.89 | 5.14 | |
| Decided to use another brand name | Yes (n = 80) | 8.42 | 4.58 | 0.1709 | 14.86 | 5.36 | 0.0014* | 15.52 | 4.94 | 0.5792 |
| | No (n = 93) | 7.61 | 4.58 | | 12.20 | 5.98 | | 14.69 | 5.22 | |
| Stopped supporting the retailer where the product was purchased | Yes (n = 59) | 8.93 | 4.54 | 0.0374* | 14.88 | 4.78 | 0.0047* | 15.49 | 4.91 | 0.4886 |
| | No (n = 114) | 7.50 | 4.55 | | 12.68 | 6.21 | | 14.86 | 5.20 | |
| Contacted the retailer/manufacturer to obtain redress | Yes (n = 110) | 7.90 | 4.81 | 0.4563 | 12.89 | 5.78 | 0.1022 | 15.09 | 5.2 | 0.9118 |
| | No (n = 63) | 8.14 | 4.20 | | 14.38 | 5.87 | | 15.06 | 4.80 | |

| **Variables (Types of complaint action)** | **Groups** | **Causal dimensions** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Locus | | | Stability | | | Controllability | | |
| | | Mean | Std Dev | p-value K-W one-way ANOVA | Mean | Std Dev | p-value K-W one-way ANOVA | Mean | Std Dev | p-value K-W one-way ANOVA |
| Contacted the retailer/manufacturer to complain for other reasons than seeking redress | Yes (n = 56) | 9.41 | 4.04 | 0.0005* | 14.66 | 5.33 | 0.0371* | 15.82 | 4.57 | 0.4156 |
| | No (n = 117) | 7.30 | 4.69 | | 12.84 | 6.00 | | 14.72 | 5.31 | |
| Contacted a repair service other than that supplied by the retailer or manufacturer | Yes (n = 55) | 8.80 | 4.52 | 0.0582 | 11.92 | 5.08 | 0.0263* | 14.43 | 4.58 | 0.2862 |
| | No (n = 118) | 7.61 | 4.58 | | 14.13 | 6.05 | | 15.38 | 5.24 | |
| Contacted a consumer protection organisation/department | Yes (n = 3) | 9.33 | 6.50 | ** | 18.33 | 9.04 | ** | 14.00 | 3.60 | ** |
| | No (n = 170) | 7.96 | 4.57 | | 13.34 | 5.77 | | 15.10 | 5.12 | |
| Wrote letter to the press (newspaper, magazine etc.) or to a consumer complaint website | Yes (n = 2) | 11.50 | 6.36 | ** | 14.00 | 7.07 | ** | 17.00 | 1.41 | ** |
| | No (n = 171) | 7.94 | 4.57 | | 13.42 | 5.85 | | 15.05 | 5.12 | |
| Contacted a legal representative | Yes (n = 1) | 16.00 | ** | ** | 9.00 | ** | ** | 18.00 | ** | ** |
| | No (n = 172) | 7.94 | 4.56 | | 13.45 | 5.85 | | 15.06 | 5.10 | |

A low score (i.e. 3-9 out of 27) on the locus dimension indicates that the respondents who engaged in particular complaint actions considered the locus dimension as external, implying that the cause for the product failure could be attributed either to the manufacturer, retailer or some outside agent in the environment or the situation. Conversely, a high score (i.e. 19-27 out of 27) indicates that the respondents who engaged in particular complaint actions considered the locus dimensions as internal, implying that the cause for product failure could be attributed to the consumer. A score between 10-18 out of 27 indicates that the respondents who engaged in particular complaint actions considered the locus dimension as relatively external (10-13.5 out of 27) to relatively internal (i.e. 13.6-18 out of 27).

A low score (i.e. 3-9 out of 27) on the stability dimension indicates that the respondents who engaged in particular complaint actions considered the stability dimension as unstable, implying that people should be less certain of future product failure if they purchase it again in the future. (If the attribution is unstable, consumers will view it as a once-off problem.) Conversely, a high score (i.e. 19-27 out of 27) indicates that the respondents who engaged in particular complaint actions considered the stability dimension as stable, implying that people should expect the product to fail if they purchase it again in the future. A score between 10-18 out of 27 indicates that the respondents who engaged in particular complaint actions considered the stability dimension as relatively unstable (10-13.5 out of 27) to relatively stable (i.e. 13.6-18 out of 27).

A low score (i.e. 3-9 out of 27) on the controllability dimension indicates that the respondents who engaged in particular complaint actions considered the controllability dimension as uncontrollable, implying that both the consumer and other parties such as the manufacturer or retailer could not control the product failure. Conversely, a high score (i.e. 19-27 out of 27) indicates that the respondents who engaged in particular complaint actions considered the controllability dimension as controllable, implying that both the consumer and other parties such as the manufacturer or retailer had control over the product failure. A score between 10-18 out of 27 indicates that the respondents who engaged in particular complaint actions considered the controllability dimension as relatively uncontrollable (10-13.5 out of 27) to relatively controllable (i.e. 13.6-18 out of 27).

* Significant on 5% level
** No calculations due to low response rate

The group who took action believed that the cause for the product failure could be attributed either to the manufacturer, retailer or some outside agent in the environment or the situation (i.e. externally) (locus = 7.98), and perceived the cause as relatively unstable (stability = 13.43) and relatively controllable by both the consumer and other parties such as the manufacturer or retailer (controllability = 15.08). However, a similar pattern emerged for the group who did not take any action (locus = 8.18, stability = 14.45, controllability = 13.97). No significant differences exist between these groups with regard to the locus ($p = 0.8648$), stability ($p = 0.4063$) and controllability dimensions ($p = 0.1675$). (Since no significant differences exist between the stability dimensions for both groups of respondents, the respondents' perception of the stability dimension is considered to be relatively unstable to relatively stable.)

The group who told their friends, family and/ or acquaintances about the bad experience rated the cause for the product failure as external (locus = 8.31), perceived the cause as relatively stable (stability = 13.61) and relatively controllable (control = 15.22). The group who did not tell their friends, family and/ or acquaintances about the bad experience perceived the cause as even more external (locus = 5.31), relatively unstable (stability = 11.94) and relatively controllable (13.89). No significant differences exist between these groups with regard to stability ($p = 0.1766$) and controllability ($p = 0.4557$) respectively, but a significant difference exists between these groups with regard to locus ($p = 0.0045$). (Since no significant differences exist between the stability dimensions for both groups of respondents, the respondents' perception of the stability dimension is considered to be relatively unstable to relatively stable.)

The group who decided to use another brand name considered the cause as external (locus = 8.42), relatively stable (stability = 14.86) and relatively controllable (controllability = 15.52). A similar pattern emerged for the group who did not decide to use another brand name in terms of locus (7.61) and controllability (14.69) of the cause, but they considered the cause to be relatively unstable (12.20). No significant differences exist between these groups with regard to locus ($p = 0.1709$) and controllability ($p = 0.5792$) respectively, but a significant difference exists between these groups with regard to stability ($p = 0.0014$).

The group who stopped supporting the retailer from whom the product was purchased perceived the cause as external (locus = 8.93), relatively stable (stability = 14.88) and relatively controllable (controllability = 15.49). However, the group who continued supporting the retailer perceived the cause as more external (locus = 7.50), relatively unstable (stability = 12.68) and relatively controllable (controllability = 14.86). Significant differences exist between these groups concerning the locus ($p = 0.0374$) and the stability dimensions ($p = 0.0047$) respectively, and no

significant difference exists between these groups concerning the controllability dimension (p = 0.4886).

The group who contacted the retailer/manufacturer to obtain redress perceived the cause as external (locus =7.90), relatively unstable (stability = 12.89) and relatively controllable (controllability = 15.09). The group who did not contact the retailer/manufacturer to obtain redress, and stopped supporting the retailer, ranked the cause for product failure similarly (locus = 8.14, stability = 14.38, controllability = 15.06). No significant differences exist between these groups concerning the respective causal dimensions (i.e. locus (p = 0.4563), stability (p = 0.1022) and controllability (p = 0.9118). (Since, no significant differences exist between the stability dimensions for both groups of respondents, the respondents' perception of the stability dimension is considered to be relatively unstable to relatively stable.)

The group who contacted the retailer/manufacturer to complain for other reasons than seeking redress, perceived the cause as external (locus = 9.41), relatively stable (stability =14.66) and relatively controllable (controllability = 15.82). However, the group who did not contact the retailer/manufacturer to complain for other reasons than seeking redress, perceived the cause as more external (locus = 7.30) and relatively unstable (stability = 12.84). Additionally, they considered the controllability dimension similarly compared to the group who contacted the retailer/manufacturer for other reasons than seeking redress (i.e. relatively controllable (control = 14.72). Significant differences exist between these groups concerning locus (p = 0.005) and stability respectively (p = 0.0371), but no significant difference exists between these groups concerning controllability (p = 0.4156).

The respondents who contacted a repair service other than that supplied by the retailer or manufacturer perceived the cause as external (locus = 8.80), relatively unstable (stability = 11.92) and relatively controllable (controllability = 14.43). The group who did not contact a repair service other than that supplied by the retailer or manufacturer perceived the cause as external (locus = 7.61), relatively stable (stability = 14.13) and relatively controllable (controllability = 15.38). No significant differences exist between these groups concerning locus (p = 0.0582) and controllability (p = 0.2862) respectively, but a significant difference exists between these groups concerning stability (p = 0.0263).

In the next paragraph, respondents' perception of the dimensional quality of the causes for product failure are described only for the groups who did not engage in more formal complaint action (i.e. did not contact a consumer protection organization/department, did not write a letter

to the press or a consumer complaint website, and did not contact a legal representative), since ample responses were obtained for these particular response options. Due to the insufficient cell size for the groups who did engage in more formal complaint action, no statistical calculations were performed to determine whether significant differences exist between the groups (i.e. those who engaged in formal complaint action versus those who did not engage in more formal complaint action) concerning the locus, stability and controllability dimensions.

The group who did not contact a consumer protection organisation/department perceived the cause for the failure of the appliance as external (locus = 7.96), relatively unstable (stability = 13.34) and relatively controllable (controllability = 15.10). The group who did not write a letter to the press (newspaper, magazine etc.) or to a consumer complaint website, considered the cause for the failure of the appliance as external (locus = 7.94), relatively unstable (stability = 13.42) and relatively controllable (controllability = 15.05). Additionally, the group who did not contact a legal representative, considered the cause for product failure as external (locus = 7.94), relatively unstable (stability = 13.45) and relatively controllable (controllability = 15.06).

The different groups perceived the cause for product failure similarly concerning the locus, stability and controllability dimensions when engaging or not engaging in the specific complaint actions. The different groups mostly perceived the causes for product failure as external, relatively unstable to relatively stable and relatively uncontrollable to relatively controllable. Failure attributed to stable factors implies the (fearful) anticipation that products will fail again in future, whereas attribution of product failure to variable causes could give rise to “hope” for the future (i.e. product failures are not likely to recur in the future (Försterling, 2001:117; Laufer, 2002). The respondents in this study were, however, relatively undecided about the way in which they perceived causes in terms of the stability and controllability dimensions (i.e. responses varied between 11.92 and 15.65), which explains the respondents’ passivity about taking complaint action. The attribution of failure to external causes, as such, was not sufficient to impel complaint action. This corresponds with Weiner’s assumption that the stability of the cause, rather than its locus determines expectancy shifts (variability in expectations for future product failure or success) (Weiner, 1986:85; Försterling, 2001:112). The groups who decided to use another brand name, stopped supporting the retailer from whom the product was purchased, and contacted the retailer/manufacturer to complain for other reasons than seeking redress perceived the cause for product failure as more stable compared to the groups who did not engage in the above actions.

Sub-objective 3.5 To describe the relationship between dissatisfied consumers' anger reactions concerning the functional/symbolic performance failure of major electrical household appliances and consumer complaint behaviour

Respondents were asked to indicate their level of anger experienced when their appliances performed faulty or poorly (Question 5, Section B – Addendum A). The results are summarised in Table 5.30.

**TABLE 5.30: LEVEL OF ANGER EXPERIENCED FOLLOWING THE APPLIANCE'S FAULTY OR POOR PERFORMANCE**

| Level of anger experienced | Frequency | Percentage | Percentage n = 216 | p-value z-test for equal proportions |
|---|---|---|---|---|
| Not angry at all | 19 | 8.84 | 48.37 | 0.6331 |
| Reasonably angry | 85 | 39.53 | | |
| Very angry | 72 | 33.49 | 51.63 | |
| Extremely angry | 39 | 18.14 | | |
| Total | 215 | 100.00 | 100.00 | |

n = 216
Frequency missing = 1

A total of 8.84% respondents did not experience any anger at all, while 39.53% respondents were reasonably angry. A total of 33.49% respondents were very angry, and 18.49% respondents were extremely angry. The z-test for equal proportions indicates that the proportion for the "not angry at all" to the "reasonably angry" category, compared to the "very angry" to "extremely angry" category, is 48.37% to 51.63%. No significant difference exists between these proportions (p-value = 0.6331) – implying that the proportions are distributed evenly.

Table 5.31 shows the relationships between the levels of anger experienced and the different types of complaint action.

**TABLE 5.31 RELATIONSHIPS BETWEEN THE LEVELS OF ANGER EXPERIENCED AND THE DIFFERENT TYPES OF COMPLAINT ACTION**

| Types of complaint action | | Level of anger experienced (Percentage) | | p-value Chi²-test |
|---|---|---|---|---|
| | | Not angry at all to Reasonably angry | Very angry to Extremely angry | |
| Took action (n = 216) | Yes | 72.12 | 88.29 | 0.0033* |
| | No | 27.88 | 11.71 | |
| Told friends, family and/or acquaintances about the bad experience | Yes | 82.67 | 93.88 | 0.0264* |
| | No | 17.33 | 6.12 | |
| Decided to use another brand name | Yes | 33.33 | 56.12 | 0.0035* |
| | No | 66.67 | 43.88 | |
| Stopped supporting the retailer where the product was purchased | Yes | 24.00 | 41.84 | 0.0157* |
| | No | 76.00 | 58.16 | |
| Contacted the retailer/manufacturer to obtain redress | Yes | 60.00 | 66.33 | 0.4276 |
| | No | 40.00 | 33.67 | |
| Contacted the retailer/manufacturer to complain for other reasons than seeking redress | Yes | 18.67 | 42.86 | <0.0001* |
| | No | 81.33 | 57.14 | |
| Contacted a repair service other than that supplied by the retailer or manufacturer | Yes | 33.33 | 30.61 | 0.7434 |
| | No | 66.67 | 69.39 | |
| Contacted a consumer protection organisation/department | Yes | 1.33 | 2.04 | 1.0000 |
| | No | 98.67 | 97.96 | |
| Wrote letter to the press (newspaper, magazine etc.) or to a consumer complaint website | Yes | 2.67 | 0.00 | 0.1865 |
| | No | 97.33 | 100.00 | |
| Contacted a legal representative | Yes | 1.33 | 0.00 | 0.4335 |
| | No | 98.67 | 100.00 | |

* Significant on the 5% level of significance
n = 173 except for "took action"

A larger proportion of the respondents who were very angry to extremely angry, (88.29%) took action compared to those who varied between no anger to reasonable anger (72.12%). A significant relationship exists between the level of anger experienced and taking complaint action (p-value = 0.0033). (The respondents who were very angry to extremely angry significantly more took action compared to those who varied between no anger to reasonable anger). Proportionately more of the respondents who were very angry to extremely angry (93.88%) told their friends, family and/ or acquaintances about the bad experience, compared to those who experienced no anger to reasonable anger (82.67%). A significant relationship exists between the level of anger experienced and telling friends, family and/ or acquaintances about the bad experience (p-value = 0.0246). (The respondents who were very angry to extremely angry significantly more told their friends, family and/ or acquaintances about the bad experience, compared to those who varied between no anger to reasonable anger). Proportionately more of the respondents who were very angry to extremely angry (56.12%) decided to use another brand name, compared to those who were not angry at all to reasonably angry (33.33%). A significant relationship exists between the level of anger experienced and

deciding to use another brand name (p-value = 0.0035). (The respondents who were very angry to extremely angry significantly more decided to use another brand name, compared to those who varied between no anger to reasonable anger). A smaller proportion of the respondents who were very angry to extremely angry (58.16%) continued supporting the retailer from whom the product was purchased, compared to those who were not angry to reasonably angry (76.00%). A significant relationship exists between the level of anger experienced and stopped supporting the retailer where the product was purchased (p-value = 0.0157). (Respondents who were very angry to extremely angry significantly less stopped supporting the retailer from whom the product was purchased, compared to those who were not angry to reasonably angry). Fairly equal proportions of respondents who experienced very to extreme anger (66.33%) contacted the retailer/manufacturer to obtain redress, compared to those who experienced no anger to reasonable anger (60.00%). No significant relationship exists between the level of anger experienced and contacting the retailer/manufacturer to obtain redress (p-value = 0.4276). A smaller proportion (57.14%) of the respondents who were very angry to extremely angry did not contact the retailer/manufacturer to complain for other reasons than seeking redress, compared to the respondents who varied between not angry to reasonably angry (81.33%). A significant relationship exists between the level of anger experienced and contacting the retailer/manufacturer to complain for other reasons than seeking redress (p-value < 0.0001). (Respondent who were very angry to extremely angry significantly more did not contact the retailer/manufacturer to complain for other reasons than seeking redress, compared to the respondents who varied between not angry to reasonably angry). Fairly equal proportions of respondents who were very angry to extremely angry (69.39%) contacted a repair service other than that supplied by the retailer or manufacturer, compared to those who experienced no anger to reasonable anger (66.67%). No significant relationship exists between the level of anger experienced and contacting a repair service other than that supplied by the retailer or manufacturer (p-value = 0.7434). Nearly none of the respondents in the groups who were very angry to extremely angry and no anger to reasonable anger respectively, contacted a consumer protection organisation/department, wrote a letter to the press (newspaper, magazine etc.) or to a consumer complaint website, or contacted a legal representative. No significant relationships exist between the level of anger experienced and the following types of complaint actions respectively: contacting a consumer protection organisation/department (p-value = 1.0000), writing a letter to the press (newspaper, magazine etc.) or to a consumer complaint website (p-value = 0.1865) and/or contacting a legal representative (p-value = 0.4335).

It appears that respondents who were very to extremely angry were, with one exception, more likely to take private actions than they were to take public complaint action.

## 5.6 RESULTS OF OBJECTIVE 4

Objective 4: To describe the relationship between specific consumer-related variables and dissatisfied consumers' complaint behaviour concerning the performance failure of major electrical household appliances

Sub-objective 4.1 To describe the relationship between demographic variables (i.e. gender, age, level of education, monthly household income and culture) and dissatisfied consumers' complaint behaviour concerning the functional/symbolic performance failure of major electrical household appliances

In the following section, the relationships between the demographic variables (gender, age, highest level of education, monthly household income, and culture) and taking action (action vs. no action) will be described first. Next, the respective relationships between the demographic variables and the different types of complaint action (i.e. talking to friends and family, using another brand name, stop supporting the retailer, contacting the retailer/manufacturer/a repair service/a consumer protection organisation, writing a complaint letter and/or contacting a legal representative) will be described.

### 5.6.1 Respective relationships between demographic variables and taking action (action vs. no action)

Table 5.32 shows the relationships between the different gender-, age-, highest level of education-, monthly household income-, and culture groups, and action versus no action respectively.

**TABLE 5.32: RELATIONSHIPS BETWEEN THE DIFFERENT GENDER- , AGE-, LEVEL OF EDUCATION-, MONTHLY HOUSEHOLD INCOME- AND CULTURE GROUPS AND ACTION VS. NO-ACTION**

| Demographics | | Did you take any action? (percentage) | | p-value Chi²-test |
|---|---|---|---|---|
| | | Yes | No | |
| Gender | Male | 79.41 | 20.59 | 0.8651 |
| | Female | 80.41 | 19.59 | |
| Age | 25-30 years | 77.27 | 22.73 | 0.5402 |
| | 31-45 years | 84.44 | 15.56 | |
| | 46-55 years | 78.57 | 21.43 | |
| | 56-83 years | 72.22 | 27.78 | |
| Level of education | Grade 12/Standard 10/NTCIII or less | 86.67 | 13.33 | 0.4217 |
| | Grade 12 and an additional certificate(s)/diploma(s) | 76.92 | 23.08 | |
| | Bachelors degree/Postgraduate qualification | 79.57 | 20.43 | |
| Monthly household income | R 2 000 – R 5 000 | 82.14 | 17.86 | 0.9050 |
| | R 5 001 – R 10 000 | 79.31 | 20.69 | |
| | R 10 001 or more | 79.41 | 20.59 | |
| Culture | Black | 80.30 | 19.70 | 0.9590 |
| | Caucasian | 80.00 | 20.00 | |

* Significant on the 5% level
n = 216

Table 5.32 shows that proportionately more women (80.41) took action compared to the male respondents (79.41%). However, the results of the chi-square tests indicate that no significant relationship exist between gender and taking action (p-value = 0.8651). Proportionately more respondents from the 31 to 45 years age group (84.44%) took action compared to the respondents from the 25 to 30 years age group (77.27%), the 46 to 55 years age group (78.57%) and the 56 to 83 years age group (72.22%). No significant relationship exists between age and taking action (p-value = 0.5402). Proportionately more respondents from the Grade 12/Standard 10 group/NTCIII or less group (86.67%) took action compared to the respondents from the Grade 12 and an additional certificate(s)/diploma(s) group (76.92%) and the Bachelors degree/Postgraduate qualification group (79.57%). No significant relationship exists between level of education and taking action (p-value = 0.4217). Fairly equal proportions of respondents from the R 2 000 – R 5 000 household income group (82.14%), the R 5 001 – R 10 000 household income group (79.41%) and the R 10 001 or more household income group (79.41%) took action. No significant relationship exists between monthly household income and taking action (p-value = 0.9050). Equal proportions of both the black (80.30%) and Caucasian respondents (80.00%) took action. No significant relationship exists between culture and taking action respectively (p-value = 0.9590). This implies that the demographic profile of respondents who did take action versus respondents who did not take action does not differ.

### 5.6.2 Respective relationships between demographic variables and the different types of complaint action

Tables 5.33 and 5.34 show the relationships between the different gender, age and level of education groups and the different types of private and public complaint actions, and the different household monthly income and culture groups with the different types of private and public complaint action respectively.

**TABLE 5.33: RELATIONSHIPS BETWEEN THE DIFFERENT GENDER GROUPS, AGE GROUPS AND LEVEL OF EDUCATION GROUPS AND THE DIFFERENT TYPES OF PRIVATE AND PUBLIC COMPLAINT ACTION**

| Types of complaint action | | Gender (%) | | p-value Chi²-test | Age (%) | | | | p-value Chi²-test | Level of Education (%) | | | p-value Chi²-test |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Male | Female | | 25-30 years | 31-45 years | 46-55 years | 56-83 years | | Grade 12/ Standard 10/NTCIII or less | Grade 12 and an additional certificate(s)/ diploma(s) | Bachelors degree/ Postgraduate qualification | |
| | | (n = 54) | (n = 119) | | (n = 51) | (n = 76) | (n = 33) | (n = 13) | | (n = 39) | (n = 60) | (n =74) | |
| **Private action** | | | | | | | | | | | | | |
| Told your friends, family and/or acquaintances about the bad experience | Yes | 87.04 | 89.92 | 0.5747 | 96.08 | 88.16 | 84.85 | 76.92 | 0.1584 | 87.18 | 91.67 | 87.84 | 0.7510 |
| | No | 12.96 | 10.08 | | 3.92 | 11.84 | 15.15 | 23.08 | | 12.82 | 8.33 | 12.16 | |
| Decided to use another brand name | Yes | 38.89 | 49.58 | 0.1913 | 54.90 | 50.00 | 33.33 | 23.08 | 0.0723 | 35.90 | 56.67 | 43.24 | 0.1018 |
| | No | 61.11 | 50.42 | | 45.10 | 50.00 | 66.67 | 76.92 | | 64.10 | 43.33 | 56.76 | |
| Stopped supporting the retailer where the product was purchased | Yes | 38.89 | 31.93 | 0.3712 | 41.18 | 38.16 | 24.24 | 7.69 | 0.0671 | 35.90 | 36.67 | 31.08 | 0.7664 |
| | No | 61.11 | 68.07 | | 58.82 | 61.84 | 75.76 | 92.31 | | 64.10 | 63.33 | 68.92 | |
| **Public action** | | | | | | | | | | | | | |
| Contacted the retailer/manufacturer to obtain redress | Yes | 66.67 | 62.18 | 0.5703 | 62.75 | 68.42 | 54.55 | 61.54 | 0.5784 | 61.54 | 70.00 | 59.46 | 0.4315 |
| | No | 33.33 | 37.82 | | 37.25 | 31.58 | 45.45 | 38.46 | | 38.46 | 30.00 | 40.54 | |
| Contacted the retailer/manufacturer to complain for other reasons than seeking redress | Yes | 33.33 | 31.93 | 0.8552 | 41.18 | 34.21 | 21.21 | 15.38 | 0.1378 | 30.77 | 38.33 | 28.38 | 0.4587 |
| | No | 66.67 | 68.07 | | 58.82 | 65.79 | 78.79 | 84.62 | | 69.23 | 61.67 | 71.62 | |
| Contacted a repair service other than that supplied by the retailer or manufacturer | Yes | 37.04 | 29.41 | 0.3183 | 41.18 | 25.00 | 27.27 | 46.15 | 0.1553 | 33.33 | 21.67 | 39.19 | 0.0932 |
| | No | 62.96 | 70.59 | | 58.82 | 75.00 | 72.73 | 53.85 | | 66.67 | 78.33 | 60.81 | |
| Contacted a consumer protection organisation /department | Yes | 1.85 | 1.68 | 0.9363 | 3.92 | 1.32 | 0.00 | 0.00 | 0.5083 | 0.00 | 1.67 | 2.70 | 0.5777 |
| | No | 98.15 | 98.32 | | 96.08 | 98.68 | 100.00 | 100.00 | | 100.00 | 97.30 | 97.30 | |
| Wrote letter to the press (newspaper, magazine etc.) or to a consumer complaint website | Yes | 0.00 | 1.68 | 0.3380 | 3.92 | 0.00 | 0.00 | 0.00 | 0.1839 | 0.00 | 0.00 | 2.70 | 0.2583 |
| | No | 100.00 | 98.32 | | 96.08 | 100.00 | 100.00 | 100.00 | | 100.00 | 100.00 | 97.30 | |
| Contacted a legal representative | Yes | 0.00 | 0.84 | 0.4993 | 1.96 | 0.00 | 0.00 | 0.00 | 0.4925 | 0.00 | 0.00 | 1.35 | 0.5103 |
| | No | 100.00 | 99.16 | | 98.04 | 100.00 | 100.00 | 100.00 | | 100.00 | 100.00 | 98.65 | |

n = 173

* Significant on the 5% level

#### 5.6.2.1 Relationships between gender and the different types of private and public complaint action

Table 5.33 indicates that fairly equal proportions of respondents from the male (87.04%) and female groups (89.92%) told friends, family and/or acquaintances about the bad experience. Considering the results of the chi-square tests, no significant relationship exists between gender and telling friends, family and/or acquaintances about the bad experience (p-value = 0.5747). Proportionately more respondents from the male group (61.11%) did not switch between brand names compared to the respondents from the female group (50.42%).No significant relationship exists between gender and using another brand name (p-value = 0.1913). Fairly equal proportions of respondents from the male (61.11%) and female groups (68.07%) continued supporting the retailer where the product was purchased. No significant relationship exists between gender and stop supporting the retailer where the product was purchased (p-value = 0.3712). Fairly equal proportions of respondents from the male (66.67%) and female groups (62.18%) contacted the retailer/manufacturer to obtain redress. No significant relationship exists between gender and contacting the retailer/manufacturer to obtain redress (p-value = 0.5703). Fairly equal proportions of respondents from the male (66.67%) and female groups (68.07%) did not contact the retailer/manufacturer to complain for other reasons than seeking redress. No significant relationship exists between gender and contacting the retailer/manufacturer to complain for other reasons than seeking redress (p-value = 0.8552). Proportionately fewer respondents from the male group (62.96%) did not contact a repair service other than that supplied by the retailer or manufacturer compared to the respondents from the female group (70.59%). No significant relationship exists between gender and contacting a repair service other than that supplied by the retailer or manufacturer (p-value = 0.3183). Nearly none of the respondents from the different gender groups contacted a consumer protection organisation/department, wrote a letter to the press (newspaper, magazine etc.) or to a consumer complaint website, or contacted a legal representative. No significant relationships exist between gender and contacting a consumer protection organisation/department (p-value = 0.9363), writing a letter to the press or to a consumer complaint website (p-value = 0.3380), and contacting a legal representative (p-value = 0.4993).

It is important to note that women and men did not differ, nor did members of the different age groups or education groups in the types of complaint actions they took. There were no significant relationships between the demographic variables of gender, age, level of education, monthly household income culture and the types of complaint actions they took.

#### 5.6.2.2 Relationships between age and the different types of private and public complaint action

Table 5.33 shows that proportionately more respondents from the 25 to 30 years age group (96.08%), the 31 to 45 years age group (88.16%) and the 46 to 55 years age group (84.85%) told their friends, family and/or acquaintances about the faulty/poor appliance compared to the 56 to 83 years age group (76.92%). However, considering the results of the chi-square tests, no significant relationship exists between age and telling friends, family and/or acquaintances about the bad experience (p-value = 0.1584). Proportionately more respondents from the 56 to 83 years age group (76.92%) and the 46 to 55 years age group (66.67%) did not use other brand names compared to the respondents from the 25 to 30 years age group (45.10%) and the 31 to 45 years age group (50.00%). No significant relationship exists between age and using another brand name (p-value = 0.0723). Proportionately more respondents from the 56 to 83 years age group (92.31%) and the 46 to 55 years age group (75.76%) continued supporting the retailer from which the product was purchased compared to the respondents from the 25 to 30 years age group (58.82%) and the 31 to 45 years age group (61.84%). However, no significant relationship exists between age and stop supporting the retailer where the product was purchased (p-value = 0.0671). Proportionately more respondents from the 25 to 30 years age group (68.42%), the 31 to 45 years age group (61.84%) and the 56 to 83 years age group (61.54%) contacted the retailer/manufacturer to obtain redress compared to the respondents from the 46 to 55 years age group (54.55%). No significant relationship exists between age and contacting the retailer/manufacturer to obtain redress (p-value = 0.5784). Proportionately more respondents from the 56 to 83 years age group (84.62%) and the 46 to 55 years age group (78.79%) did not contact the retailer/manufacturer to complain for other reasons than seeking redress, compared to the respondents from the 25 to 30 years age group (58.82%) and the 31 to 45 years age group (65.79%). No significant relationship exists between age and contacting the retailer/manufacturer to complain for other reasons than seeking redress (p-value = 0.1378). Proportionately fewer respondents from the 25 to 30 years age group (58.82%) and the 56 to 83 years age group (53.85%) did not contact a repair service other than that supplied by the retailer or manufacturer compared to the respondents from the 31 to 45 years age group (75.00%) and the 46 to 55 years age group (72.73%). No significant relationship exists between age and contacting a repair service other than that supplied by the retailer or manufacturer (p-value = 0.1553). Nearly none of the respondents from the different age groups contacted a consumer protection organisation/department, wrote a letter to the press (newspaper, magazine etc.) or to a consumer complaint website, or contacted a legal representative. No significant relationships exist between age and contacting a consumer protection organisation/department (p-value =

0.5083), writing a letter to the press or to a consumer complaint website (p-value = 0.1839), and contacting a legal representative (p-value = 0.4925).

#### 5.6.2.3 Relationships between level of education and the different types of private and public complaint action

Table 5.33 indicates that fairly equal proportions of respondents from the Grade 12/ Standard 10 group/NTCIII or less group (87.18%), Grade 12 and an additional certificate(s)/diploma(s) group (91.67%) and the Bachelors degree/Postgraduate qualification group (87.84%) told their friends, family and/ or acquaintances about the bad experience. However, considering the results of the chi-square tests, no significant relationship exists between level of education and telling friends, family and/or acquaintances about the bad experience (p-value = 0.7510). Proportionately more respondents from the Grade 12/Standard 10 group/NTCIII or less group (64.10%), and the Bachelors degree/Postgraduate qualification group (56.76%) decided to use another brand name compared to the Grade 12 and an additional certificate(s)/diploma(s) group (43.33%). No significant relationship exists between level of education and using another brand name (p-value = 0.1018). Fairly equal proportions of respondents from the Grade 12/Standard 10 group/NTCIII or less group (64.10%), Grade 12 and an additional certificate(s)/diploma(s) group (63.33%) and the Bachelors degree/Postgraduate qualification group (68.92%) continued supporting the retailer where the product was purchased. No significant relationship exists between level of education and stop supporting the retailer from which the product was purchased (p-value = 0.7664). Proportionately more respondents from the Grade 12 and an additional certificate(s)/diploma(s) group (70.00%) contacted the retailer/manufacturer to obtain redress compared to the respondents from the Grade 12/Standard 10 group/NTCIII or less group (64.54%), and the Bachelors degree/Postgraduate qualification group (59.46%). No significant relationship exists between level of education and contacting the retailer/manufacturer to obtain redress (p-value = 0.4315). Proportionately more respondents from the Grade 12/Standard 10 group/NTCIII or less group (69.23%), and the Bachelors degree/Postgraduate qualification group (71.62%) did not contact the retailer/manufacturer to complain for other reasons than seeking redress, compared to the Grade 12 and an additional certificate(s)/diploma(s) group (61.67%). No significant relationship exists between level of education and contacting the retailer/manufacturer to complain for other reasons than seeking redress (p-value = 0.4587). Proportionately fewer respondents from the Grade 12/Standard 10 group/NTCIII or less group (66.67%), and the Grade 12 and an additional certificate(s)/diploma(s) group (78.33%) did not contact a repair service other than that supplied by the retailer or manufacturer, compared to the respondents from the Bachelors

degree/Postgraduate qualification group (60.81%). No significant relationship exists between level of education and contacting a repair service other than that supplied by the retailer or manufacturer (p-value = 0.0932). Nearly none of the respondents from the different level of education groups contacted a consumer protection organisation/department, wrote a letter to the press (newspaper, magazine etc.) or to a consumer complaint website, or contacted a legal representative. No significant relationships exist between level of education contacting a consumer protection organisation/department (p-value = 0.5777), writing a letter to the press or to a consumer complaint website (p-value = 0.2583), and contacting a legal representative (p-value = 0.5103).

**TABLE 5.34 RELATIONSHIPS BETWEEN THE DIFFERENT MONTHLY HOUSEHOLD INCOME GROUPS AND CULTURE GROUPS WITH THE DIFFERENT TYPES OF PRIVATE AND PUBLIC COMPLAINT ACTION**

| Types of complaint action | | Monthly household income (%) | | | p-value Chi²-test | Culture (%) | | p-value Chi²-test |
|---|---|---|---|---|---|---|---|---|
| | | R 2 000 – R 5 000 (n = 46) | R 5 001 – R 10 000 (n = 46) | R 10 001 or more (n = 81) | | Black (n =53) | Caucasian (n =120) | |
| **Private action** | | | | | | | | |
| Told your friends, family and/or acquaintances about the bad experience | Yes | 91.30 | 91.30 | 86.42 | 0.5912 | 90.57 | 88.33 | 0.6650 |
| | No | 8.70 | 8.70 | 13.58 | | 9.43 | 11.67 | |
| Decided to use another brand name | Yes | 54.35 | 45.65 | 41.98 | 0.4034 | 66.04 | 37.50 | 0.0005* |
| | No | 45.65 | 54.35 | 58.02 | | 33.96 | 62.50 | |
| Stopped supporting the retailer where the product was purchased | Yes | 50.00 | 43.45 | 19.75 | 0.0007* | 58.49 | 23.33 | 0.0001* |
| | No | 50.00 | 56.52 | 80.25 | | 41.51 | 76.67 | |
| **Public action** | | | | | | | | |
| Contacted the retailer/manufacturer to obtain redress | Yes | 67.39 | 71.74 | 56.79 | 0.1995 | 77.36 | 57.50 | 0.0123* |
| | No | 32.61 | 28.26 | 43.21 | | 22.64 | 42.50 | |
| Contacted the retailer/manufacturer to complain for other reasons than seeking redress | Yes | 50.00 | 36.96 | 19.75 | 0.0016* | 60.38 | 20.00 | 0.0001* |
| | No | 50.00 | 63.04 | 80.25 | | 39.62 | 80.00 | |
| Contacted a repair service other than that supplied by the retailer or manufacturer | Yes | 36.96 | 34.78 | 27.16 | 0.4591 | 39.62 | 28.33 | 0.1416 |
| | No | 63.04 | 65.22 | 72.84 | | 60.38 | 71.67 | |
| Contacted a consumer protection organisation/department | Yes | 0.00 | 4.35 | 1.23 | 0.2498 | 1.89 | 1.67 | 0.9186 |
| | No | 100.00 | 95.65 | 98.77 | | 98.11 | 98.33 | |
| Wrote letter to the press (newspaper, magazine etc.) or to a consumer complaint website | Yes | 2.17 | 0.00 | 1.23 | 0.6190 | 0.00 | 1.67 | 0.3445 |
| | No | 97.83 | 100. 00 | 98.77 | | 100.00 | 98.33 | |
| Contacted a legal representative | Yes | 0.00 | 0.00 | 1.23 | 0.5648 | 0.00 | 0.83 | 0.5051 |
| | No | 100.00 | 100.00 | 98.77 | | 100.00 | 99.17 | |

n = 173
* Significant on the 5% level

#### 5.6.2.4 Relationships between household monthly income and the different types of private and public complaint action

Table 5.34 shows that 91.30% of the respondents from the R 2 000 – R 5 000 household income group, 91.30% % respondent from the R 5 001 – R 10 000 household income group and 86.42% of the respondents from the R 10 001 or more household income group told their friends, family and/or acquaintances about the bad experience. Considering the results of the chi-square tests, no significant relationship exists between monthly household income and telling friends, family and/or acquaintances about the bad experience (p-value = 0.5912). Fairly equal proportions of respondents from the R 2 000 – R 5 000 household income group (45.65%), R 5 001 – R 10 000 household income group (54.35%) and R 10 001 or more household income group (58.02%) did not switch between brand names. No significant relationship exists between monthly household income and using another brand name (0.4034). Proportionately more respondents from the R 10 001 or more household income group (80.25%) continued supporting the retailers from whom the appliances were initially purchased, compared to respondents from the R 2 000 – R 5 000 household income group (50.00%) and R 5 001 – R 10 000 household income group (56.62%) respectively. A significant relationship exists between monthly household income and stopping support to retailers (p = 0.0007). (Respondent from the R 10 001 or more household income group significantly more continued supporting the retailers from whom the appliances were initially purchased, compared to respondents from the R 2 000 – R 5 000 household income group and R 5 001 – R 10 000 household income group respectively). A smaller proportion of respondents from the R 10 001 or more household income group (56.79%) contacted the retailer/manufacturer to obtain redress, compared to the respondents from the R 2 000 – R 5 000 household income group (67.39%) and the R 5 001 – R 10 000 monthly household income group (71.74%). No significant relationship exists between monthly household income and contacting the retailer/manufacturer to obtain redress (p-value = 0.1995). Proportionately more respondents from the R 10 001 or more household income group (80.25%) did not contact the retailer/manufacturer to complain for reasons other than seeking redress compared to the respondents from the R 2 000 – R 5 000 household income group (50.00%) and the R 5 001 – R 10 000 household income group (63.04%). A significant relationship exists between monthly household income and contacting retailers/manufacturers to complain for reasons other than seeking redress (p = 0.0016) respectively. (Respondents from the R 10 001 or more household income group (80.25%) significantly more did not contact the retailer/manufacturer to complain for reasons other than seeking redress compared to the respondents from the R 2 000 – R 5 000 household income group and the R 5 001 – R 10 000 household income group). Fairly equal proportions of

respondents from the R 2 000 – R 5 000 household income group (63.04%), R 5 001 – R 10 000 household income group (65.22%) and R 10 001 or more household income group (72.84%) did not contact a repair service other than that supplied by the retailer or manufacturer. No significant relationship exists between monthly household income and contacting a repair service other than that supplied by the retailer or manufacturer (p-value = 0.4591). Nearly none of the respondents from the different household income groups contacted a consumer protection organisation/department, wrote a letter to the press (newspaper, magazine etc.) or to a consumer complaint website, or contacted a legal representative. No significant relationships exist between monthly household income and contacting a consumer protection organisation/department (0.2498), writing a letter to the press or to a consumer complaint website (p-value = 0.6190), and contacting a legal representative (p-value = 0.5648).

#### 5.6.2.5 Relationships between culture and the different types of private and public complaint action

Table 5.34 shows that 90.57% of the respondents from the black group and 88.33% of the respondents from the Caucasian (88.33%) group told their friends, family and/or acquaintances about the bad experience. Considering the results of the chi-square tests, no significant relationship exists between cultural group and telling friends, family and/or acquaintances about the bad experience (p-value = 0.6650). Proportionately more respondents from the black group (66.04%) decided to use another brand name compared to the respondents from the Caucasian group (37.50%). A significant relationship exists between cultural group and using another brand name (p-value = 0.0005). (Black respondents significantly more decided to use another brand name compared to the Caucasian respondents). Proportionately more respondents from the Caucasian respondents (76.67%) continued supporting the retailer from whom the product was purchased, compared to the respondents from the black group (41.51%). A significant relationship exists between cultural group and stopping support to the retailer from whom the product was purchased (p-value = 0.0001). (Caucasian respondents (76.67%) significantly more continued supporting the retailer from whom the product was purchased, compared to black respondents). Proportionately more respondents from the black group (77.36%) contacted the retailer/manufacturer to obtain redress, compared to the Caucasian respondents (57.50%). A significant relationship exists between cultural group and contacting the retailer/manufacturer to obtain redress (p-value = 0.0123). (Black respondents significantly more contacted the retailer/manufacturer to obtain redress, compared to the Caucasian respondents). Proportionately more respondents from the black group (60.38%) contacted the retailer/manufacturer to complain for other reasons than seeking redress, compared to the

respondents from the Caucasian group (20.00%). A significant relationship exists between cultural group and contacting the retailer/manufacturer to complain for reasons other than seeking redress (p-value = 0.0001). (Black respondents significantly more contacted the retailer/manufacturer to complain for other reasons than seeking redress, compared to Caucasian respondents. Proportionately more respondents from the Caucasian group (71.67%) did not contact a repair service other than that supplied by the retailer or manufacturer, compared to the respondents from the black group (60.38%). No significant relationship exists between culture and contacting a repair service other than that supplied by the retailer or manufacturer (p-value = 0.1416). Nearly none of the respondents from the Caucasian or black groups contacted a consumer protection organisation/department, wrote a letter to the press (newspaper, magazine etc.) or to a consumer complaint website, or contacted a legal representative. No significant relationships exist between culture and the following types of complaint actions respectively:, contacting a repair service other than that supplied by the retailer or manufacturer (p-value = 0.1416); contacting a consumer protection organisation/department (p-value = 0.9186), writing a letter to the press (newspaper, magazine etc.) or to a consumer complaint website (p-value = 0.3445), and contacting a legal representative (p-value = 0.5051).

## 5.7 RESULTS OF OBJECTIVE 5

Objective 5: To describe the relationship between product-specific variables and dissatisfied consumers' complaint behaviour concerning the performance failure of major electrical household appliances

Sub-objective 5.1 To describe dissatisfied consumers' perceptions of the severity of the performance failure of major electrical household appliances

Respondents were asked to indicate the severity of their appliance's faulty or poor performance (Question 5, Section B – Addendum A). The results are summarised in Table 5.35.

**TABLE 5.35: THE SEVERITY OF THE APPLIANCE'S FAULTY OR POOR PERFORMANCE**

| Severity of faulty or poor performance | Frequency | Percentage | Percentage n = 216 | p-value z-test for equal proportions |
|---|---|---|---|---|
| Not severe at all | 24 | 11.11 | 50.46 | 0.8918 |
| Somewhat severe | 85 | 39.35 | | |
| Very severe | 71 | 32.87 | 49.54 | |
| Extremely severe | 36 | 16.67 | | |
| Total | 216 | 100.00 | 100.00 | |

n = 216

A total of 11.11% of the respondents considered the performance failure as not severe at all and 39.35% considered the performance failure as somewhat severe. A total of 32.87% of the respondents considered the performance failure as very severe and 16.67% considered it as extremely severe. The z-test for equal proportions indicates that the proportion of respondents for the “not severe at all” to “somewhat severe” categories, compared to the proportion of respondents for the “very severe” to “extremely severe” categories is 50.46% to 49.54%. No significant difference exists between these proportions (p-value = 0.8918), implying that the proportions are distributed evenly.

Sub-objective 5.2 To describe the relationship between dissatisfied consumers’ perception of the severity of the functional/symbolic performance failure concerning major electrical household appliances and their consumer complaint behaviour

Table 5.36 shows the relationships between the perceived levels of severity of performance failure and the different types of complaint action.

**TABLE 5.36: RELATIONSHIPS BETWEEN THE PERCEIVED LEVELS OF SEVERITY OF PERFORMANCE FAILURE AND THE DIFFERENT TYPES OF COMPLAINT ACTION**

| Types of complaint action | | Perceived levels of severity (Percentage) | | p-value Chi²-test |
|---|---|---|---|---|
| | | Not severe at all to somewhat severe | Very severe to extremely severe | |
| Took action (n = 216) | Yes | 70.64 | 89.72 | <0.0001* |
| | No | 29.36 | 10.28 | |
| Told friends, family and/or acquaintances about the bad experience | Yes | 87.01 | 90.63 | 0.4730 |
| | No | 12.99 | 9.38 | |
| Decided to use another brand name | Yes | 35.06 | 55.21 | 0.0094* |
| | No | 64.94 | 44.79 | |
| Stopped supporting the retailer where the product was purchased | Yes | 23.38 | 42.71 | 0.0097* |
| | No | 76.62 | 57.29 | |
| Contacted the retailer/manufacturer to obtain redress | Yes | 61.04 | 65.63 | 0.6336 |
| | No | 38.96 | 34.38 | |
| Contacted the retailer/manufacturer to complain for other reasons than seeking redress | Yes | 31.17 | 33.33 | 0.8703 |
| | No | 68.83 | 66.67 | |
| Contacted a repair service other than that supplied by the retailer or manufacturer | Yes | 28.57 | 34.38 | 0.5114 |
| | No | 71.43 | 65.63 | |
| Contacted a consumer protection organisation/department | Yes | 1.30 | 2.08 | 1.0000 |
| | No | 98.70 | 97.92 | |
| Wrote letter to the press (newspaper, magazine etc.) or to a consumer complaint website | Yes | 2.60 | 0.00 | 0.1967 |
| | No | 97.40 | 100.00 | |
| Contacted a legal representative | Yes | 1.30 | 0.00 | 0.4451 |
| | No | 98.70 | 100.00 | |

n = 173 except for "took action"
* Significant on the 5% level

A larger proportion of the respondents who perceived the severity of the performance failure as very severe to extremely severe (89.72%) took action, compared to those who perceived the severity of the performance failure as not severe at all to somewhat severe (70.64%). A significant relationship exists between perceived levels of the severity of performance failure and taking complaint action (p-value < 0.0001). (Those respondents who considered the performance failure to be more severe significantly more took action than those who found the performance failure less severe). A total of 87.01% of respondents who perceived the severity of the performance failure as not severe at all to somewhat severe and a total of 90.63% of the respondents who perceived the severity of the performance failure as very severe to extremely severe, told their friends, family and/or acquaintances about the bad experience. No significant relationship exists between the perceived levels of the severity of performance failure and telling friends, family and/or acquaintances about the bad experience (p-value = 0.4730). Proportionately more respondents who perceived the severity of the performance failure as very severe to extremely severe (55.21%) used another brand name, compared to those who perceived the severity of the performance failure as not severe at all to somewhat severe (35.06%). A significant relationship exists between perceived levels of severity of performance failure and using another brand name (p-value =

0.0094). (Those respondents who considered the performance failure to be more severe significantly more used another brand name than those who found the performance failure less severe). A larger proportion of the respondents who perceived the severity of the performance failure as very severe to extremely severe (42.71%) stopped supporting the retailer where the product was purchased compared to those who perceived the severity of the performance failure as not severe at all to somewhat severe (23.38%). A significant relationship exists between perceived levels of severity of performance failure and stop supporting the retailer from whom the product was purchased (p-value = 0.0097). (Those respondents who considered the performance failure to be more severe significantly more stopped supporting the retailer than those who found the performance failure less severe). Fairly equal proportions of respondents who perceived the performance failure as very severe to extremely severe (65.63%) and as not severe at all to somewhat severe (61.04%), contacted the retailer/manufacturer to obtain redress. No significant relationship exists between the perceived levels of the severity of the performance failure and contacting the retailer/manufacturer to obtain redress (p-value = 0.6336). Fairly equal proportions of respondents who perceived the performance failure as very severe to extremely severe (66.67%) and not severe at all to somewhat severe (68.83%), did not contact the retailer/manufacturer to complain for other reasons than seeking redress. No significant relationship exists between the perceived levels of the severity of the product failure and contacting the retailer/manufacturer to complain for other reasons than seeking redress (p-value = 0.8703). Fairly equal proportions of respondents who perceived the performance failure as very severe to extremely severe (65.63%) and as not severe at all to somewhat severe (71.43%), did not contact a repair service other than that supplied by the retailer or manufacturer. No significant relationship exists between the perceived levels of severity contacting a repair service other than that supplied by the retailer or manufacturer (p-value = 0.5114). Nearly none of the respondents in the groups who perceived the performance failure as very severe to extremely severe and not severe at all to somewhat severe respectively, contacted a consumer protection organisation/department, wrote a letter to the press (newspaper, magazine etc.) or to a consumer complaint website, or contacted a legal representative. No significant relationships exist between the perceived levels of severity and contacting a consumer protection organisation/department (p-value = 1.0000), writing a letter to the press (newspaper, magazine etc.) or to a consumer complaint website (p-value = 0.1967), and contacting a legal representative (p-value = 0.4451) respectively.

Those respondents who felt that the appliance's faulty or poor performance was very or extremely severe were more likely than those with less extreme ratings to take action , use another brand or stop supporting the retailer where the product was purchased. In contrast, for all other complaint actions, the level of severity did not impact action.

## 5.8 CONCLUSION

Both the functional and symbolic product performance dimensions were considered to be important in the respondents' evaluation of the performance failure of their appliances. Additionally, based on the results of the factor analysis, the respondents did not differentiate between the different concepts. Gender and culture played distinctive roles in the respondents' perception of the degree to which their appliances performed to their expectations. The female and black groups were significantly more certain that their appliances' combined functional and symbolic performance was less than their initial expectations for product performance, compared to the male and Caucasian groups, respectively.

Over 80% of the respondents mainly attributed the failure of major household appliances to the manufacturers' "wrong-doing" (i.e. the manufacturer provided an appliance with poor styling and design features, used inferior materials/finishes (trimmings), or provided poor workmanship), compared to human error (13.03%), and other reasons (2.33%). The uni-variate analysis for the respective causal dimensions (i.e. locus, stability and controllability) indicate that the respondents perceived the causes for product failure as external (i.e., respondents mainly blamed manufacturers for product failure), relatively stable (i.e., uncertain about recurring product failure in the future) and relatively controllable (i.e., the respondents were relatively undecided about who had control over the factors that caused product failure). Significant differences exist between black and Caucasian respondents' perceptions of the cause for product failure in terms of the locus and controllability dimensions. Whereas the black group considered the cause for product failure to be relatively external and relatively controllable, the Caucasian group perceived the cause for product failure as external and relatively less controllable. (Therefore, the black group considered the cause for product failure less external and more controllable than did the white respondents). Both groups considered the cause for product failure to be relatively stable.

Over 76% of the respondents in this study were very to extremely dissatisfied, while nearly a quarter of the respondents experienced slight to moderate dissatisfaction. Despite the high level of dissatisfaction, nearly 20% of the respondents did not take any action at all. The respondents who took action, took private action (i.e. complained to family and friends, decided to use another brand name and stopped supporting the retailer), and complained publicly to retailers and/or took their appliance to independent repair services. Respondents

were more likely to take part in private than public complaint behaviour. Almost none of the respondents engaged in formal complaint behaviour.

The main reason for not taking any action was respondents' perception that complaining was not worth their time and effort. The main reasons for telling friends, family and/or acquaintances about the bad experience were "to feel less disappointed, since the appliance was expensive and supposed to last longer" and "to get rid of my anger/frustration" (i.e. to gain social support). The main reason for switching brands related to the perceived unreliability of the brand name concerned. Similarly, the respondents stopped supporting retailers because they felt that they could no longer trust them. Respondents contacted retailers/manufacturers mainly to obtain redress when/while their appliances were still covered by their guarantees. The respondents who contacted the retailer/manufacturer to complain for reasons other than seeking redress wanted to assert themselves ("stand up for their rights as consumers" and wanted to "make an objection after their effort to obtain redress/compensation for the appliance had failed"). Respondents mainly contacted a repair service other than that supplied by the retailer or manufacturer because their appliance guarantees had expired.

Contradicting expectation, the group of respondents who did not engage in negative word-of-mouth, considered the cause for product failure as more external compared to those who did engage in negative word-of-mouth. However, both groups considered the cause for the product failure as relatively controllable and relatively unstable.

Both the group of respondents who decided to use another brand name and the group who did not, considered the cause for the product failure as external and as relatively controllable. The group who used another brand name considered the cause for product failure to be more stable compared to group who did not use another brand name.

Contrary to expectation, the group of respondents who stopped supporting the retailer where the product was purchased believed that the cause for product failure less external and more stable than the respondents who did not stop supporting the retailer. However, both these groups considered the cause for the product failure as relatively controllable.

Both the group of respondents who contacted the retailer/manufacturer to obtain redress and the group who did not, considered the cause for product failure to be external and relatively controllable. Both theses groups considered the stability dimensions as relatively stable.

Contrary to expectation, the group of respondents who did not contact the retailer/manufacturer to complain for other reasons than seeking redress, considered the cause for product failure to be more external and more unstable compared to the group who did contact the retailer/manufacturer. However, both these groups of respondents considered the product failure to be relatively controllable.

Both the groups of respondents who contacted a repair service other than that supplied by the retailer or manufacturer and those who did not, considered the product failure to be external and relatively controllable. However, the group of respondents who did not contact a repair service other than that supplied by the retailer or manufacturer, considered the cause for product failure to be more stable compared to the group who contacted a repair service.

Respondents who were very angry to extremely angry significantly more took complaint action, told friends, family and/ or acquaintances about the bad experience, decided to use another brand name, stopped supporting the retailer where the product was purchased, and contacted the retailer/manufacturer to complain for other reasons than seeking redress than respondents who were not angry at all to reasonably angry.

No significant relationships were found between gender, age and level of education on the one hand, and the different types of complaint action on the other – confirming that the demographic variables (i.e. gender, age and level of education) for respondents engaging in the different types of private and public complaint action, do not differ (Singh 1990a, 1990b; Broadbridge & Marshall, 1995). However, respondents from the lower income groups were significantly more inclined to stop supporting retailers, and to contact retailers/manufacturers to complain for reasons other than seeking redress, compared to respondents from upscale income groups. Additionally, black respondents significantly more decided to use another brand name, stopped supporting the retailer, complained to retailers and manufacture to obtain redress and complained for other reasons than obtaining redress – compared to the Caucasian respondents.

Those respondents who considered the performance failure to be more severe were more likely to take action, use another brand name and stop supporting the retailer than those who found the performance failure less severe - thus confirming previous research.

In chapter 6 the research results of this study are discussed and interpreted against the theories and research that were chosen as conceptual background for this study.