Participation in the UK National Home Energy Efficiency Programmes: A study of homeowners' perspectives

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Abstract

Since the 1970s, energy efficiency programmes have formed an integral part of the UK's strategy to reduce energy consumption in the home. From the outset, individual programme elements, such as approaches to behaviour change, were subject to some research but programmes were often criticized for failing to achieve large-scale participation. Even now, few comprehensive and cross-disciplinary examinations of people's perceptions of existing programmes have been carried out. This thesis sought to investigate, from the homeowners' perspectives, the efficacy of these programmes: it reviewed pro-environmental behaviour change theories and identified energy programmes' key aspects before proposing an evidence-based theoretical framework for the design of future programmes.

Primary data were collected from 721 homeowners participating or enquiring about current programmes by means of a questionnaire, which enabled the identification of motivating and hindering factors and programmes' features that encourage/discourage homeowners' participation. Fifty semi-structured interviews clarified issues affecting homeowners' decisions whether or not to participate. The empirical data enabled the assessment of programmes using two rating scales: the first identified the level of significance of the barriers and motivators to homeowners; the second measured how successfully homeowners felt the programmes addressed them. The results were used to develop a new framework to guide future programmes' design.

The findings show that while participating homeowners are generally satisfied with the programmes, making the decision to participate is largely influenced by comprehensive and holistic communication and the availability of a wide variety of measures and economic incentives. The findings demonstrate that advice and education programmes should form an intrinsic part of the more technical programmes, which should be much more localized. Even though the empirical part of the study has been carried out before the new government initiative 'Green Deal' was introduced, the research findings have direct implications for its design and dissemination careful consideration must be given to: who will administer the programme; how the current lack of trust in programmes and funding bodies can be overcome; and how to ensure accurate two-way conversation.

Chapter ONE

Introduction

Introduction

> "Never believe that a few caring people can't change the world. For, indeed, that's all who ever have." (Margaret Mead)

Energy conservation at home has steadily gained in national and international importance. The UK government, as one of its strategies, has created a number of home energy efficiency programmes (herein referred to as energy efficiency programmes, energy programmes or programmes) that aim to reduce energy consumption in homes. However, evidence suggests that these are not working as expected (e.g. Abrahamse et al., 2005, UK-GBC, 2008b). This research is therefore concerned to investigate and provide explanation for low homeowners' participation rates in current UK energy efficiency programmes. It evaluates programmes by seeking homeowners' views about them rather than examining the programmes' intended outcomes (e.g. behaviour change, levels of energy reduction). The research identifies postulated barriers and motivators to participation emanating from behaviour change and participation theories. It tests their validity empirically by the use of a household questionnaire and semi-structured interviews based on 19 selected energy efficiency programmes. Research participants were asked to comment on the postulated barriers and motivators and identify other factors that hinder or encourage their participation. The empirical data was used to develop an evidence-based theoretical framework, which can confidently be used by programme designers to ensure future programmes avoid previous pitfalls. It is important to note that the empirical part of the study has been undertaken before the 'Feed-in Tariff' and the 'Green Deal' initiatives were introduced, but the research findings have recommendations relevant to both. The research recognizes the volume of existing research but identifies the lack of academic information readily available to practitioners and therefore aims to bridge this gap by developing an evidence-based framework for the design of potentially more successful, in terms of participation, energy programmes. The following sections provide the rationale for the research and the methods used in the course of the study.

1.1. The Emergence of Home Energy Efficiency Programmes

As early as the late 1970s the UK government acknowledged the importance of energy conservation and launched its first-ever campaign called 'Save It' (1975) (see for example Ritchie and McDougall, 1985), providing information to the public on how to conserve energy and why it is important and the first insulation initiative 'Homes Insulation Scheme' (1978) (see for example Shorrock et al. 2005). However, it was not until the early 1990s with the formation of the United Nations Framework Convention on Climate Change (1994) that energy conservation, as a part of the wider agenda to combat climate change, rose to the top of governments' agendas. The UK introduced the Home Energy Conservation Act in 1995 placing responsibility on local authorities to reduce energy consumption and subsequent carbon dioxide (CO_2) emissions from all types of housing within their jurisdictions. They were to achieve a 30 per cent reduction of CO_2 emissions firstly by offering incentives for homeowners to improve the thermal insulation of their properties and insulating social housing stock themselves; secondly local authorities were encouraged to engage in raising public awareness on issues related to energy conservation and promote programmes designed for homeowners.

In the international arena the Kyoto Protocol was agreed in 1997, imposing some strict reduction targets on a whole range of greenhouse gases, including CO_2. Due to its complex nature and political implications the Protocol was not ratified until 2005. However, the UK was preparing to meet its allocated target from the day it signed up. It has therefore commissioned many scoping studies and addressed energy conservation through an array of legislations and policies. To review all of these is outside the scope of this study, but a brief overview of the most relevant policies is provided. In 1993 the government, together with a number of private organizations, formed the Energy Saving Trust (EST) and through it delivers advice and information to the public. The EST has launched various advice campaigns such as 'Are You Doing Your Bit?' (1998) and 'Act on CO_2' (2007).

The physical condition of the UK's housing stock was addressed by the introduction of regulations affecting larger utility companies who were obliged to invest in domestic energy efficiency through the Energy Efficiency Standards of

Performance (1994), superseded in 2002 by the Energy Efficiency Commitment 1 and 2 (2005) and in 2008 by the Carbon Emission Reduction Target (CERT). The utility companies comply with the regulations by introducing investment programmes focused on lighting, heating, appliances, and insulation, and, in more recent years, renewable energy technology. In the year 2000 'Warm Front', the government funded insulation and heating scheme for disadvantaged households, was launched not only to improve the energy efficiency of a dwelling, but also to meet the UK's target for reducing fuel poverty. In 2002 the government launched its first 'Major Photovoltaic Demonstration Programme', followed in 2003 by the 'Clear Skies' programme offering grants toward renewable energy technology not covered under the photovoltaic programme. In 2006 all tried and tested (e.g. ground source heat pump but not air source heat pump) technologies were amalgamated and a grant was offered under the Low Carbon Building Programme.

Additionally, the EU Directive on Energy Labelling of White Goods (92/75/EC, replaced by 2010/30/EC) placed responsibility on manufacturers of, for example, fridges and washing machines to display clearly the achieved energy efficiency of their appliances. Owners of existing homes were also directly affected by the revised Building Regulations Part L1B (2006) and the introduction of the 'Energy Performance Certificate' (2008) that needs to be completed for every private home prior to its sale.

1.2. Criticisms of Home Energy Efficiency Programmes Research

Energy efficiency programmes are designed to address objectives of specific policies; therefore there are many available programmes throughout the UK. Whilst sales and marketing experts support the notion that the offer of greater choice of products creates more satisfied customers and leads to more sales, the same, as suggested by research, does not appear to be true where energy programmes are concerned. The recent consultation undertaken by the UK Green Building Council (UK-GBC) (2008a) with industry experts and stakeholders, providing information for the then forthcoming Low Carbon Homes strategy, suggests that there is perhaps too much choice, which hinders homeowners from making the 'right' choice and often leads to them not participating at all. Many programme providers further substantiate this suggestion by reporting their programmes as largely undersubscribed.

Claims are often made throughout the literature that the sometimes insignificant differences between programmes create even further uncertainty for homeowners, which leads, again, to non-participation (see for example UK-GBC, 2008b), though no empirical evidence exists to support this. As portrayed in the introduction, policies evolve and priorities change and programmes alter accordingly, changing not only their names, but also terms and conditions of participation. This, according to practitioners (e.g. Davies, 2007, Baynham-Hughes, 2008), creates mistrust among householders of organizations promoting programmes, reduces the credibility of the promised, typically financial, support and causes undue disappointment for potential participants. It is the first rule of business to keep customers happy, as a dissatisfied customer is likely to tell eight to 10 people about his/her negative experience (LeBoeuf, 2000), and, while the accepted rule of thumb does not specifically include participants, it does not exclude them either. It is therefore reasonable to assume that negative association with programmes might create a barrier to any future involvement.

The government has long been criticized for lack of well thought-out and coherent environmental policies (e.g. Agyeman and Evans, 2004, Lorenzoni et al., 2007). For instance DEFRA was in charge of HECA whilst the Department of Trade and Industry oversaw issues related to fuel poverty before the Department of Energy and Climate Change was formed in 2008 and took the responsibility for most energy and climate change issues. Nonetheless, the frequent changes in the government's environmental and other priorities in the past had a negative effect on the availability of funding for programmes, which created the feeling of mistrust among householders (UK-GBC, 2008b).

Policy makers and programme providers use two clearly distinct approaches to try to achieve energy conservation: improving the physical energy efficiency of a product or dwelling; and changing behaviours through advice and education. Each approach is supported by a marketing campaign, which is designed to create awareness leading to participation. The campaigns are, however, often criticized for using inappropriate messages and images (see for example Mee et al., 2004, Nicholson-Cole, 2005, Rodrigues, 2007). From the number of available energy efficiency programmes it appears that politicians and practitioners favour programmes that improve the energy efficiency of housing (e.g. increased level of insulation) and appliances (e.g. A+ rated appliances). This may be because improved energy efficiency delivers almost instant and greater energy savings (Abrahamse et al., 2005), but is also tangible and progress is easier to monitor (Gregoire et al., 2007, Hazzard and Brateng, 2007). For example, the Fuel Poverty strategy (2001) stated that by the year 2004 800,000 people would be assisted through energy programmes; the subsequent reports (e.g. DEFRA and DTI, 2005) provide figures related to the number of people taking part in the Warm Front scheme, the amount of money spent on assisting homeowners and the approximate energy and CO_2 emissions saved. A programme is deemed a success, according to programme providers, once the assigned quota of people is reached or once the available funding is spent (Manager of EEC1 Programme, 2007).

Monitoring the success of advice and education programmes, however, could be an extremely difficult and time-consuming process if, as Steg (2008) advocates, the actual changes in behaviour are measured (Barata and Anderson, 2007, DEFRA, 2008, Pike, 2008). Steg (2008, p.4452) suggests a 'systematic evaluation' of programmes which would determine whether an actual behaviour change occurred by conducting 'before and after' studies. However valid Steg's point is, the proposed studies would have to be carried out over a long period of time in order to determine whether participants really changed their behaviour. The programme providers, typically local authorities and utility companies, rarely have the expertise or the resources to be able to carry out such extensive studies. Perhaps the simpler approach would be for academics to study participants' reactions to interventions and help practitioners design future programmes that address issues raised. Although the process is likely to be complicated and lengthy, the UK-GBC findings (2008b) reiterate the need to understand whether programmes lead to behaviour change.

As previously mentioned, the role of determining whether programmes change people's behaviour is perhaps better suited to academics, who have already undertaken numerous studies of various elements of programmes to date (see for example Diduck and Sinclair, 2002, Abrahamse et al., 2005, Lorenzoni et al., 2007, Steg, 2008). The reviewed studies of primarily educational campaigns were found to concentrate on ascertaining the causes of and barriers to behaviour change by consulting established pro-environmental behaviour change theories (for example the Value-Belief-Norm Theory, the Theory of Reasoned Action and the Value-Action-Gap Theory), but did not consider how this theoretical knowledge can be implemented in practice. Similarly, no evidence of studies of participants' perceptions of the UK energy programmes were found and therefore no empirical knowledge exists as to how these programmes could be improved to increase participation. These are important omissions, which need to be addressed if energy programmes are to continue to be the main delivery vehicle for policy objectives and if domestic energy consumption is to be significantly reduced.

1.3. The Research Aim and Objectives

It has been established that energy programmes have a major role to play in achieving the UK's national and international targets for carbon dioxide emission reductions through domestic energy conservation, among other strategies. It has also been established that, while it is accepted that energy efficiency programmes are not reaching their potential in participant numbers, the understanding of why it is so remains fragmented at best. Research on interventions has remained limited and largely discipline-bound, based on theory rather than on examination of participants' perceptions, and has contributed little to the improvement of energy programmes; competing and frequently changing policy objectives have been equally unhelpful. The aim of this research is therefore:

> **To investigate empirically, from homeowners' perspectives, the efficacy of home energy efficiency programmes.**

In order to achieve the aim four objectives were developed. The first objective is:

- **To identify key factors that hinder as well as encourage, motivate and facilitate homeowners' participation in intervention programmes.**

A two-strand approach to address this objective was undertaken. Firstly, to identify, through a review of published ideas and studies, factors (i.e. intervening factors or variables, namely attitudes to the environment and demographic characteristics) argued to influence (encourage and discourage) participation in energy programmes. Secondly, to use these finding as a basis for the investigation and the development of research instruments (a household questionnaire and semi-structured interviews), which were used to gather data on homeowners' views of programmes.

The second objective is concerned with the examination of existing energy programmes and providing a logical and structured manner of explaining and describing the nature of energy saving programmes. The objective therefore is:

- **To identify and classify, in terms of key aspects, UK home energy efficiency programmes aimed at encouraging households to reduce energy consumption.**

It is important to understand the key aspects of individual energy programmes because this enables commonalities and differences between programmes to be identified. This information is essential as it allows homeowners' stated views to be accurately linked to programmes and their aspects. Thus it facilitates the subsequent analysis of empirical data.

In order to identify which hindering and motivating factors are, in the homeowners' opinion, the most important in their decision-making on whether or not to participate in energy programmes, the factors are assessed using two rating scales identifying first, the level of their significance to homeowners and second, the level of success in which homeowners feel programmes are dealing with them. The third objective is therefore a final step in developing a complete understanding of participants' perceptions of energy programmes:

- **To assess how well hindering and motivating factors are addressed in current programmes designed to encourage homeowners to reduce energy consumption in the home.**

By combining the theoretical understanding and empirical results, a complete understanding of how the effectiveness of programmes (in terms of the factors above) relate to aspects of these programmes is achieved. This knowledge can then be used to guide the development of future programmes.

The final research objective is concerned with bridging the theoretical–practical gap and it seeks:

- **To develop an evidence-based theoretical framework for devising programmes that are likely to be effective in terms of homeowners' participation.**

The evidence-based theoretical framework proposes an approach to programme design that combines established theoretical approaches to participation with empirical results. The framework is based on the existing programmes' key aspects but suggests changes derived from understanding of homeowners' experiences and expectations.

Each of the four objectives is approached from as wide a perspective as possible. For example, the study does not provide an in-depth systematic evaluation of a single energy programme, rather it reviews a large number of programmes in order to identify the aspects that are, from homeowners' viewpoint, most successful. Similarly, it incorporates as many relevant disciplines, and identifies as many factors influencing participation, as practically feasible in order to design a theoretical framework that would allow barriers to be overcome and motivators to be enhanced.

1.4. The Research Approach

Currently, the design of energy programmes is governed by policy with little empirical and comprehensive understanding of participants' perceptions to facilitate the improvement of programmes. This research seeks to create new empirical knowledge by examining programmes from homeowners' perspectives, while accepting that resource limitations prevent this study from evaluating the actual impacts (e.g. behaviour change) participation in energy programmes might have.

As previously stated, this research focuses on identifying factors that homeowners may perceive as barriers or motivators to participation and examining them through energy programmes' aspects (e.g. provision of a grant). The aspects are identified by studying a large number of programmes using a multi-dimensional approach, and testing them through a large population sample. The number of programmes studied had to be sufficiently high to provide a wide range of features, including approaches to dealing with the identified barriers and motivators, which would enable the creation of a comprehensive evidence-based theoretical framework. Nineteen home energy efficiency programmes meeting selection requirements were chosen (see Chapter Three, section 3.2 for explanation of the selection process) after extensive desktop research. The selected programmes are:

- Warm Front
- Warmer Homes Greener Herts
- Cocoon
- E.on Insulation Scheme
- British Gas Insulation Scheme
- Big Green Boiler Scheme
- Energy Labelling of White Goods
- Councils' Low Energy Light Bulb Giveaway
- Energy or Fuel Suppliers' Low Energy Light Bulb Giveaway
- Are You Doing Your Bit?
- Commit 20%
- Act on CO_2
- Save Today Save Tomorrow
- Energy Savers Report
- Energy for Good
- Home Energy Conservation Report

- Major Photovoltaic Demonstration Programme
- Low Carbon Building Programme
- Clear Skies

The population sample was selected (see Chapter Four, section 4.7, for explanation of the selection process) from a database of homeowners that either participated or enquired about participation in the selected programmes within Hertfordshire:

- Dacorum
- Three Rivers
- Watford

A household questionnaire was posted to the entire population sample (n=2,122) within the case study area. The questionnaire contained questions divided into four sections: section A determined homeowners' attitudes toward, barriers to and motivators for energy efficiency improvements; section B examined existing programmes and their features; section C provided opportunities for homeowners to design new energy programmes and thus offered an insight into how the perceived barriers could be overcome; and section D collected socio-demographic information. The questionnaire contains both closed and open-ended questions, which provided large amounts of quantitative and qualitative data. Statistical tests were used to determine the relationships between variables and allowed for trends and patterns to emerge.

The questionnaire was followed by semi-structured interviews, which provided more in-depth and personalized responses for issues identified by questionnaire analysis as requiring more clarification; the interviews explored real experiences of participation in programmes and identified deeper individual factors influencing participation. The interviews were recorded, transcribed and coded, and the information gathered provided explanation for relationships identified by statistical examination. Using a combination of approaches enabled richer data to be collected that may lead to better design of future programmes.

1.5. Definitions and Assumptions

In order to carry out this study various elements needed to be defined:

Home energy efficiency programmes: includes any intervention, initiative, scheme, campaign and programme designed to encourage householders to reduce energy consumption at home.

Pro-environmental behaviour: is behaviour, either one-off (e.g. cavity wall insulation) or repetitive (e.g. turning off lights when not needed), that reduces the negative impact on the environment.

For the purposes of the research, the following assumptions are made:

a) Attitudes toward energy conservation are independent of attitudes concerning wider environmental issues such as climate change and as such can be studied separately.
b) The theoretical barriers to and motivators for participation are well established by pro-environmental behaviour change theories and participation theories, so that a selection of the most prominent determinants is possible without the need to carry out another study.
c) The theoretical barriers to and motivators for participation are similar for all identified programmes and therefore could be examined in one study.
d) Due to the nature of the sample population, various responses are likely to be more in favour of pro-environmental action than the average UK sample.

1.6. Thesis Structure

There are a further eight chapters in this thesis. Chapter Two offers literature review of the most influential behaviour change and participation theories and identifies the theoretical barriers to participation. It partially addresses the first objective of this PhD study. Chapter Three presents the findings from the examination of the selected energy programmes. It offers justification for separating the 19 selected programmes into three categories: insulation and appliances; advice and education; and renewable energy technology. It further provides details of the selection requirements the programmes had to fulfil in order to be included in the study. There are three such requirements: maturity; geographical representation; and programmes' remit. Chapter Three identifies the selected energy programmes' key aspects and highlights the similarities and differences between them. This chapter fulfils the second objective of this PhD study.

Chapter Four explains the methodology used for addressing the research aim and objectives. The methods used for the study are explained and justified, as are the statistical tests for testing the relationships between the variables. An explanation of the approach to analysing the qualitative data is provided. The selection process for choosing energy programmes and case study area is also explained.

The data analyses are presented in Chapters Five and Six. Chapter Five presents analyses of the findings derived from postal questionnaires. It commences with background information and general characteristics of the research participants obtained from descriptive statistical tests. It then applies the Kendall's rank correlation coefficient to establishing whether or not financially motivated actions are dependent on homeowners' perception of wider environmental concerns. Next, the numbers of participants with an interest in energy programmes were compared to the numbers of participants progressing to an actual participation using again descriptive statistics. Finally, it provides results from Kendall's rank correlation coefficient, one-way MANOVA, one-way ANOVA, Spearman's correlation and the Chi-square test of independence carried out in order to determine whether there are any significant differences between different groups of respondents, thus addressing possible socio-demographic divergence.

Results from Chapter Five were used to establish an interview schedule. Chapter Six presents the findings from the 50 interviews with the carefully selected volunteers. The analysis provides details of why homeowners choose to participate, or not, in energy programmes and it summarizes programmes' aspects and their importance as perceived by homeowners.

Chapter Seven applies the results from Chapters Five and Six and evaluates the selected home energy efficiency programmes from homeowners' perspectives, thus addressing the third objective stated in Chapter One. The identified key aspects of the selected energy programmes are evaluated in order of importance as perceived by homeowners.

Chapter Eight utilizes the results from the theoretical chapters (Chapters Two and Three) as well as the practical chapters (Chapters Five to Seven) and proposes a framework for future programmes' design. The combined data provide the essential, cross-issues information needed for the establishment of an evidence-based theoretical framework for devising home energy efficiency programmes that are likely to be effective in terms of homeowners' participation – this fulfils the fourth objective.

Chapter Nine presents the overall research conclusions and makes suggestions for further research. It also comments on how the findings of the research helped to answer the research aim.

Chapter TWO

Behaviour Determinants

Behaviour Determinants: existing theories and evidence

2.1 Introduction

Energy conservation forms an important part of UK government's strategy to reduce carbon dioxide emissions. As highlighted in Chapter One, the government introduced a number of energy efficiency programmes that aim not only to reduce the actual amount of energy consumed, but also to trigger a behaviour change toward pro-environmental actions. As argued throughout this PhD study, the programmes often fail to reach their objective of attracting a large number of participating homeowners. In order to identify why programmes fail to do so, it is important to establish the current understanding of factors affecting participation in environmental initiatives in general and to use this evidence to empirically test their validity by comparing them with the views of householders on energy programmes. This chapter provides details of the current theories, which provide the basis for the design of the research instruments (questionnaire and interview schedule) used in this study and partially fulfils the first objective:

- **To identify key factors that hinder as well as encourage, motivate and facilitate homeowners' participation in intervention programmes.**

This chapter therefore reviews literature on factors that either discourage people from or motivate them to change behaviour. It provides an overview and discussion from a multi-disciplinary perspective, including theories on pro-environmental behaviour change, communication and participation, but acknowledges that some theories (e.g. financial theories, policy) are outside the scope of the study.

A vast amount of information on what drives an individual's behaviour and what leads to participation is available in general terms, however, fewer studies focus solely on energy conservation. Assumptions are therefore often made that the published findings are applicable and relevant to this study (for explanation see Chapter One, section 1.5). The debate is often difficult, contradictory and conflicting, thus reflecting the complexity of the subjects of behaviour change and participation.

Careful consideration and choices were therefore made when deciding what approaches/theories were reviewed for the purposes of this study and what the finally selected barriers and motivators would be. The studies reviewed and behaviour determinants selected are related predominantly to established findings derived from studies in the area of participation. One of the fundamental assumptions for this study is the belief that willingness to conserve energy is independent of general attitudes and perceptions of wider environmental issues (see section 2.2 for discussion) and is therefore studied without the need to understand people's views of, for example, climate change. However, it is important to understand barriers and motivators to the wider environmental concerns as they might provide invaluable insight into factors affecting participation in energy efficiency programmes. This research therefore gives some consideration to understanding the wider environmental concerns.

This chapter begins with the review of theoretical barriers to participation (section 2.2), separating them, using established terminology, into two groups: the first includes obstacles related to individuals and their attitudes, beliefs and values in relation to the environment; the second covers contextual issues, for example, physical infrastructure and suitability of products. In section 2.3 theoretical motivators (e.g. values, motivation and advertising) to participation are studied before a final selection of barriers and motivators is made for the inclusion in this study in section 2.4.

2.2 Theoretical Barriers to Participation

Before a discussion of barriers identified from the reviewed literature is offered, it is important to differentiate between actual and perceived barriers. Perceived barriers have, as Ajzen (1991) suggests, far greater impact on a person's actions than was originally recognized and to date very little empirical evidence has been captured that focuses on the differences between actual and perceived barriers. Ajzen argues that even if conditions for behaviour change are stripped of any actual barriers but the individual believes an issue to be an obstacle – for example he or she imagines little chance of success – the person is very unlikely to take action. In terms of participation, removing perceived barriers poses a great challenge and often "little happens until the right combination of intervention types is found" (Stern, 2000, p.419). While it is important to recognize the difference between actual and perceived barriers, this PhD study considers all barriers as actual at the point of conducting the empirical part of the study. However, further consideration is given to the issue of actual/perceived barriers and its implications to energy programmes' design in Chapter Nine, section 9.2.

Throughout the literature, barriers are typically divided into two categories, with some exceptions, for example Blake (1999) who grouped barriers under individuality, responsibility and practicality headings. Or Stern (2000) who considered barriers in groups related to attitudinal variables, personal capabilities, contextual factors and habits and routine. For instance Kollmuss (2002) described barriers as being influenced by internal and external factors, Diduck (2002) considered structural and individual barriers, Lorenzoni (2007) and Ockwell (2009) wrote about individual and social groups of barriers, and Steg (2008) refers to barriers as either individual or contextual. The discussion of barriers in this study follows, for ease of reference, Steg's categorization (individual and contextual), but includes factors identified by other writers.

2.2.1 Theoretical Individual Barriers

The earliest debates among sociologists and psychologists put forward attitudes as one of the most influential drivers for behaviour change, and various pro-environmental theories are based on that assumption (see for example the Linear Models of Behaviour Change, the Theory of Reasoned Action and the Theory of Planned Behaviour). However, measuring attitudes requires a complex methodological approach and many studies, according to Ajzen (1991), failed to measure attitudes accurately (see also Rajecki, 1982). He maintains that in order to determine how attitudes influence behaviour, a specific attitude must be measured against a specific behaviour. For example, if the researcher is trying to determine whether a respondent saves energy there is no point in establishing his attitude toward climate change. Stern (2000) also believes that understanding attitudes has relevance in overcoming barriers to participation (see also Tonglet et al., 2004, Ek and Söderholm, 2010); he points out that studies must combine attitudinal factors and contextual variables such as financial incentives and introduction of new technology in order to achieve a complete understanding of the relationship between the two groups of factors. Another argument suggests that the importance of a positive attitude toward an action tends to diminish with rising complexity, requirements and above all cost of that action (e.g. Diekmann and Preisendoerfer, 1992 as quoted in Kollmuss and Agyeman, 2002, Stern, 2000).

Attitudes are formed by, among other things, knowledge and while many sociologists and psychologists agree that knowledge is a poor predictor of behaviour they tend to consider only knowledge of broader environmental issues such as climate change or ozone layer depletion (see for example Barr et al., 2001, Kollmuss and Agyeman, 2002 for review). Writers concerned with participation, however, consider lack of knowledge related to tasks (e.g. knowing how to conserve energy, who to contact for information on a specific programme) as a much more significant barrier to action (see for example Stern, 2000, McDonald and Oates, 2003, Tonglet et al., 2004, Steg, 2008, UK-GBC, 2008a). They argue that without the provision of task knowledge, any intervention is predetermined to fail. Some studies also suggest that where actions are driven by financial motivation, they are not determined by environmental knowledge but would be impossible to carry out without task knowledge (see for example Stern, 2000, DEFRA, 2002, Bedford et al., 2004, Darnton, 2004, do Paço and Varejão, 2010).

Attitudes are also shaped by values, beliefs, and social, personal and cultural norms. All these factors are extensively discussed throughout the literature and form an integral part of a number of theories, for example the Value-Belief-Norm theory (Stern et al., 1999). Values are typically divided into those that support pro-environmental action such as altruistic values (e.g. social justice for all) and those that discourage people from changing their behaviour such as egoistic values (e.g. perception of quality of life) (see for example Schultz, 2000, Stern, 2000, Darnton, 2004). While there is a general consensus among writers that egoistic values are potential barriers, the degree to which these values are influential over actions, or even whether they are a true predictor of behaviour, differs. For example, Barr and colleagues (2001) propose that values can and often are overridden by more practical issues such as convenience of performing an action (e.g. location of recycling depots) (see also Tonglet et al., 2004). Some academics (for example Stern, 2000, Kollmuss and Agyeman, 2002, Bedford, 2002c, Darnton, 2004) perceive values as unreliable predictors of behaviour because studies establishing what values drive behaviour are typically based on self-reporting surveys, while others – typically proponents of the Value-Action Gap theory (Blake, 1999) – place greater emphasis on understanding values, claiming that values are cornerstones for behaviour.

Similarly difficult and contradictory is the debate on beliefs and their influence on behaviour. Many forms of beliefs are discussed throughout the literature and include: belief in one's ability to carry out an action (Ajzen, 1991, Nicholson-Cole, 2005); locus of control (Newhouse, 1991, Kollmuss and Agyeman, 2002); or being an agent of change (Barr et al., 2001). All three forms of beliefs are based on the premise that unless the participant believes that he/she has control over his/her actions and that these actions contribute to a change, he/she is unlikely to act.

Another form of belief is a belief in an environmental problem and trust in scientific information. Although many more people now accept that, for example, climate change is a real threat, some are still doubtful of the accuracy of scientific data or simply deny the existence of any environmental issue (Opotov and Weiss, 2000, Bedford et al., 2004, Lorenzoni et al., 2007). Similarly, the lack of belief or trust in organizations, including the government, that they provide accurate, impartial and financially beneficial information, acts as a barrier for some people (UK-GBC, 2008b, Ockwell et al., 2009). Others suggest that people believe that it is the big businesses and the government that should do more and individuals can contribute only marginally to such a global issue (Lorenzoni et al., 2007, Ockwell et al., 2009). Additionally, some people believe that technology and scientists will provide solutions to deal with any environmental threat without the need for change in individual behaviour (Lorenzoni et al., 2007, DEFRA, 2008, UK-GBC, 2008b).

There are several other coping beliefs, which refer to the state of mind created by a person in order to deal with negative information, situations or outcomes that are relevant to this debate. Apathy, for example, is claimed to be a barrier to behaviour (for example Diduck and Sinclair, 2002, Kollmuss and Agyeman, 2002, Lorenzoni et al., 2007, Ockwell et al., 2009, Ek and Söderholm, 2010), but Donn (1999, quoted in Jackson, 2005) argues that the barrier is a state of helplessness experienced by an individual faced with a global issue, rather than unwillingness to act. Other commonly discussed barriers to action are the beliefs that there is a distance and little connection between an individual's action and the global effect (Jackson, 2005, Evans and Abrahamse, 2009), and the belief in the distance between space and time (Lorenzoni et al., 2007, UK-GBC, 2008b, Ockwell et al., 2009) leading to nations often blaming other countries (e.g. USA, China) as the bigger causes of environmental problems (see for example Zhang, 2010).

Norms and associated expectations are often identified as barriers to change. Lorenzoni (2007, see also Thaler and Sunstein, 2008, Ockwell et al., 2009) refers to social norms, while Steg (2008) labels them as cultural norms having negative effects on behaviour due to the pressure of consumerism. Nigbur (2010, p.282) believes that social norms inform personal norms and claims that behaviour change can occur by 'imitation' of actions that are carried out by a large number of persons (see also Jackson, 2005). Differences are also made between injunctive (e.g. imposed speed limit) and descriptive norms (e.g. the desire to drive faster) (Jackson, 2005, Nigbur et al., 2010) and a choice is made on a personal basis depending on which norm is more important to the individual. While the debate over what constitutes a norm continues – for example, is it an action that is normally done or an action that ought to be done (Jackson, 2005) – an agreement that norms are highly influential over an individual's behaviour is apparent throughout the literature.

The development and retention of routine actions or habits also receive much attention from writers interested in the sociological and psychological factors influencing behaviour. Jackson (2005) points out that habits are typically formed where the contextual setting remains relatively unchanged, while Jager (2003, quoted in Jackson, 2005) explains that some habits are easier to break than others and states that habits become more ingrained the more they are performed. Gärling (2002) claims that people with strong habits are more reluctant to change and at times have wrong assumptions about alternatives. It is perhaps not surprising therefore that some socio-psychologists (for example Stern, 2000, Kollmuss and Agyeman, 2002, Stephenson et al., 2010) perceive habits as one of the ultimate barriers to changing behaviour, while others stress that habits should not be seen as the most significant barrier and imply that old habits should be replaced by new socially more desirable ones (e.g. Courtenay-Hall and Rogers, 2002, O'Donoghue and Lotz-Sisitka, 2002, Jackson, 2005, Thaler and Sunstein, 2008). Contrary to socio-psychologists, however, authors of participation studies tend to exclude habits from their research and refer instead to reluctance to change lifestyles (see the omission of habit from the list of barriers by Lorenzoni et al., 2007, Ockwell et al., 2009).

Surprisingly little attention is given to the role of priorities, particularly from the socio-psychological perspective, and while research shows that people are becoming more aware of the seriousness of, for example, climate change and the need for urgent action (Abrahamse, 2007, DEFRA, 2007), environment remains a low priority for many (Lorenzoni et al., 2007, Steg, 2008) and more urgent and immediate priorities (e.g. family, finances) take precedence (Lorenzoni et al., 2007, Ockwell et al., 2009). Prioritizing is often dependent on the amount of available financial resources and time, and for that reason lack of available money or incentives and lack of time are often quoted by people as the most important barriers to participation (e.g. Stern, 2000, Kollmuss and Agyeman, 2002, Tonglet et al., 2004, Jackson, 2005, Lorenzoni et al., 2007, UK-GBC, 2008a, Ockwell et al., 2009).

To conclude the discussion of theoretical individual barriers, mention must be made of the role of gender in participation. Kollmuss (2002) claims that gender has an impact on pro-environmental behaviour, stating that women are usually less knowledgeable about environmental issues, causes or impacts but are more emotionally engaged, more concerned and less reliant on technology than men (see also do Paço and Varejão, 2010, Hargreaves et al., 2010, Sparks et al., 2010). However, various participation studies show that there is no significant difference between genders (e.g. Diduck and Sinclair, 2002, Darnton, 2004, Tonglet et al., 2004, Kalantari et al., 2007, Loughnan et al., 2010, Scannell and Gifford, 2010). It could be, as Cortenay–Hall (2002) suggests, that the understanding of gender and its implications in terms of people's behaviour is not yet fully understood; and should perhaps be measured, as Hargreaves (2010) has done, against individual barriers (e.g. attitudes, motivation) rather than against behaviour as a whole.

Table 2.1 provides a brief summary of the identified individual barriers discussed above.

Table 2.1: Summary of theoretical individual barriers

Theoretical Individual Barriers	Summary
Negative attitudes	Negative attitudes toward the environment will discourage individuals from participating.
Lack of knowledge	Lack of knowledge of environmental issues (e.g. climate change) or of tasks (e.g. location of recycling facilities) often presents a barrier to participation.
Egoistic values	Individuals that are interested in bettering circumstances for oneself rather than the society as a whole may be less likely to participate in programmes unless there is a clear benefit to them personally.
Lack of beliefs	Individuals not believing that it is within their control to act and cause a change are unlikely to participate. Individuals that distrust the scientific information, organization or technology are unlikely to participate. Individuals that believe in distance between cause and effect, and time and space or otherwise believe that they are not responsible are not likely to participate.
Negative norms	Some norms, such as consumerism, may prevent individuals from participating.
Established routine or habit	Ingrained action within rarely changing contextual setting may be difficult to change and an individual may therefore be less likely to participate.
Overriding priorities	Environment is low priority for many often made even lower by more immediate priorities (e.g. family).
Lack of money/Economic incentives	Lack of money is often quoted as the most important barrier to participation.
Lack of time	Time is also often perceived as a significant barrier to participation.
Gender	Although widely debated, gender is believed by many writers to be a barrier to participation.

2.2.2 Theoretical Contextual Barriers

Contextual, unlike individual, barriers are outside the direct control of the participant being controlled by, for example, policies and legislation, and it is perhaps for this reason that there has been far less debate among writers, and thus greater consensus. One of the most significant contextual barriers to action is the lack of or unsuitable physical infrastructure, which includes, for example, appropriate facilities (e.g. conveniently located recycling depots) and suitable public transport alternatives (Ajzen, 1991, Kollmuss and Agyeman, 2002, Bedford et al., 2004, Darnton, 2004, Tonglet et al., 2004, Jackson, 2005, Lorenzoni et al., 2007, UK-GBC, 2008b, Evans and Abrahamse, 2009). No empirical research evidence was found that determines how physical infrastructure impacts on energy conservation at home and therefore an assumption was made that the lack of suitable infrastructure has the same negative effect on potential participants, for example lack of access to energy saving measures will prevent people from increasing the energy efficiency of their homes and cavity insulation is only possible where properties have cavity walls.

Closely related to the physical infrastructure is the lack of available and suitable products, their characteristics and cost. Recent research findings by the UK-GBC (2008b, 2008a) acknowledged the need to expand the range of energy efficiency products and techniques currently on offer, for example solid wall insulation must be made more widely available and affordable. Similar results were demonstrated by, for example, Darnton (2004), who points to the need to provide a wider range of products capable of re-use or with less packaging, in order to encourage people's shift in purchasing habits (see also Tonglet et al., 2004).

Another identified contextual barrier is associated with the societal expectations to contribute to increased GDP through material growth and encouraged consumerism (see for example Diduck and Sinclair, 2002, Kollmuss and Agyeman, 2002, Bedford et al., 2004, Jackson, 2005, Lorenzoni et al., 2007, Kotler and Keller, 2008, Evans and Abrahamse, 2009, Ockwell et al., 2009, do Paço and Varejão, 2010). This assumption is further supported by research showing that people follow trends and will only be interested in products that are fashionable and desirable, but also cost less (Bedford et al., 2004).

According to many research studies, current approaches to marketing and advertising encourage consumerism and prevent consumers from making informed purchasing decisions (do Paço and Varejão, 2010). Various research findings reiterate that marketing material is unsuitable for the general public because it is filled with jargon and technical information, and therefore hinders clear understanding of the potential benefits (e.g. Darnton, 2004, Owens and Driffill, 2008). In general advertising is not designed to achieve behaviour change but simply provides information on a service or a product (e.g. Jackson, 2005) and is subject to individuals' interpretation of the advertised products' importance and benefits. Furthermore, research shows that providing the public with messages for different interventions only adds to the confusion of potential participants (Bedford et al., 2004) and many people have grown increasingly distrustful of such marketing messages, perceiving them as 'greenwash' (Lorenzoni et al., 2007, UK-GBC, 2008a, Ockwell et al., 2009). Many marketing strategies are criticized for using the standard approach of one-size-fits-all; points are made repeatedly that marketing strategies must take into account various audiences and must therefore adjust their messages and images accordingly (see for example Bedford et al., 2004, Tonglet et al., 2004, Nicholson-Cole, 2005, Barr et al., 2006, Abrahamse, 2007, Rodrigues, 2007, Thøgersen, 2007, Steg, 2008, Ockwell et al., 2009, Ek and Söderholm, 2010).

Table 2.2 summarizes the contextual barriers identified by a literature review.

Table 2.2: Summary of theoretical contextual barriers

Theoretical Contextual Barriers	Summary
Lack of/unsuitable infrastructure	Transport, recycling facilities etc.
Lack of available/suitable products	Products with limited characteristics and availability.
Discouraging expectations to act environmentally friendly	The societal expectations encourage consumerism.
Incorrect marketing and advertising approaches	Marketing material is often unsuitable for the general public, using images and messages that are disconnected from people's perceptions.

2.3 Theoretical Motivators to Participation

The barriers discussed above have the potential, given the right set of circumstances, to be turned into motivators. For example, a person with a positive attitude towards the environment might take more pro-environmental actions, and a person with greater resources (e.g. time and money) might make more time-consuming and costly decisions in favour of the environment. This section will therefore consider only those perceived motivators that received the greatest attention in the reviewed literature, and will include factors such as values and motivation and the role of marketing and advertising. Table 2.3 provides a summary of the reviewed motivating factors.

Whilst egoistic values act as potential barriers to changing behaviour without the appropriate reward, research shows that altruistic values, or selflessness, could be an extremely strong motivator for a pro-environmental action (e.g. Kaplan, 2000, Schultz, 2000, Stern, 2000, Bedford et al., 2004, Corbett, 2005, Jackson, 2005, McMakin et al., 2009). Additional and widely discussed altruistic motivations include, for example, a feel-good factor for contributing towards resolving an environmental issue (UK-GBC, 2008b, McMakin et al., 2009), achieving a better quality of life (e.g. Kaplan, 2000), acknowledgement of shared responsibility (e.g. Bedford et al., 2004, McMakin et al., 2009) and having the right circumstances (e.g. replacing old appliances with new models, moving into a new property), knowledge and opportunity to act (e.g. Jackson, 2005, Bamberg and Möser, 2007). Research also shows that the provision of incentives is a far greater motivator for a larger number of people than altruistic values alone. Although the main type of incentives throughout the reviewed literature is economic encouragement in the form of a grant and subsidy or rising energy costs (see for example Jackson, 2005, Lorenzoni et al., 2007, UK-GBC, 2008b, Whitmarsh, 2009, Hargreaves et al., 2010, Stephenson et al., 2010, Whitmarsh and O'Neill, 2010), some researchers claim that incentives need not be limited to finances and could be provided by, for example, information on potential energy savings caused by changes in behaviour or information on actual energy saved provided by a positive feedback (Bedford et al., 2004, Abrahamse, 2007, Steg, 2008, UK-GBC, 2008b, Darby, 2010). Writers such as Barr (2001) point out that whatever the incentives used, they must be relevant and worthwhile in order to be effective.

As discussed in section 2.2, many academics argue the traditional approach to marketing and advertising is hindering participation rather than encouraging it. Some researchers further state that although advertising plays its role in awareness raising, it is not in itself a sufficient enough motivator for behaviour change (e.g. do Paço and Varejão, 2010). There are a few writers, however, who maintain that marketing, particularly social and community marketing, is a powerful motivator capable of changing behaviours and eliciting participation (e.g. McKenzie-Mohr and Smith, 1999, Stern, 2000, Agyeman and Angus, 2003, Jackson, 2005, Rodrigues, 2007) providing that the right messages supported by correct images are used (e.g. Geels, 2004, Mee et al., 2004, Slocum, 2004, Tonglet et al., 2004, Nicholson-Cole, 2005, Ockwell et al., 2009). Whatever their stance toward current marketing approaches, many academics agree that more research is needed on how marketing approaches could influence behaviour change and increase numbers of participants in interventions.

Table 2.3: Summary of theoretical motivators

Theoretical Motivators	Summary
Altruistic values	Individuals with the drive to help the environment achieving the feel-good factor caused by selfless act, achieving better quality of life, sharing responsibility for common problem and circumstances, and having the knowledge and opportunity to act are more likely to participate.
The availability of incentive or reward	Individuals may participate more readily in initiative offering grants or special offers, money-saving features or providing positive feedback. Individuals may also be motivated to participate by rising costs.
Correct marketing and advertising approaches	Initiatives that use images and messages that individuals may be able to relate to may generate greater participation numbers.

2.4 Conclusions

The literature review revealed many behaviour determinants and argued their importance as either hindering or motivating factors. The array of factors and the complexity of the subject of participation preclude this study from examining the factors in their entirety. Careful consideration was therefore given to the determinants that will be included in this research study. The decision was made to include factors identified predominantly from studies of participation while heeding Stern's warning (2000, see also Steg, 2008) that a mix of contextual and individual factors must be studied together in order to provide a more comprehensive understanding of participation. Table 2.4 lists behaviour determinants that will be tested within this study by the use of a household questionnaire. More personal reasons for energy conservation and experiences with energy efficiency programmes, will be explored through the interview stage.

Table 2.4: Behaviour determinants selected to be tested empirically in this study by household questionnaire

Theoretical Individual Barriers	**Theoretical Contextual Barriers and Motivators**	**Theoretical Individual Motivators**
Lack of knowledge	Inappropriate communication	Money savings
Lack of available funds	Unsuitable infrastructure	Availability of incentives
Lack of time	Rising energy costs	Altruistic values
Lack of trust		Right circumstances

The following chapter examines the selected home energy efficiency programmes, provides classification and identifies programmes' key aspects. The theoretical data from Chapters Two and Three will form an integral part of the empirical part of this study.

Chapter THREE

Examination of Energy Programmes

Identifying Home Energy Efficiency Programmes' Key Aspects

3.1 Introduction

As highlighted in Chapter One, the numerous available energy programmes were often criticized for not reaching their desired participation numbers for whole range of reasons: the insignificant differences between programmes (UK-GBC, 2008b) for example. However, Chapter One also pointed out that no empirical evidence exists to support this claim. This study therefore seeks to fill this gap in knowledge by satisfying its second objective:

- **To identify and classify, in terms of key aspects, UK intervention programmes aimed at encouraging householders to reduce energy consumption.**

In order to complete this objective it was essential to examine the programmes as holistically as possible, and identify programmes' key aspects (e.g. elements, features and delivery mechanisms), including approaches the programmes employ to avoid the barriers and amplify the motivators identified in Chapter Two. The identification of the key aspects enabled similarities and differences between programmes and their assessment from the homeowners' perspective to be compared and contrasted later in the study (for details see Chapters Five, Six and Seven).

A starting point for this chapter is the explanation of the term 'home energy efficiency programme' as it is intended for the purpose of this research and the selection process of programmes suitable for this study. Examining the selected programmes and interviewing practitioners to clarify issues or to provide further details identified the programmes' key aspects. A summary of those aspects is presented in Table 3.1. The individual programmes are reviewed against the key aspects and summarized in Tables 3.2, 3.3 and 3.4. The similarities and differences between programmes are then discussed, critiqued and graphically presented in Figures 3.1 to 3.9.

3.2 Home Energy Efficiency Programmes and their Selection for Inclusion in the Study

It is the aim of this section to provide an overarching definition of the term 'home energy efficiency programme' and to describe the methods applied when selecting the energy programmes for the study sample from the plethora of identified and available programmes.

The review of literature failed to reveal any standardized definition or broad explanation of the term 'energy programme'. Throughout the literature, terms such as energy efficiency interventions, energy conservation initiatives or schemes and energy efficiency campaigns are used interchangeably. For the purpose of this study, 'home energy efficiency programme' as taxonomy applies to all interventions, initiatives, schemes and campaigns that were designed to achieve energy conservation at home.

3.2.1 Selection of Home Energy Efficiency Programmes

The number of existing energy programmes in the UK is large (UK-GBC, 2008a). In order to carry out meaningful, yet replicable, research, it was imperative to create a robust selection methodology that could be applied to the identified energy programmes revealed by literature review, desktop research and various interviews with personnel involved in developing, promoting and delivering the UK energy programmes.

Desktop research and interviews with local authority energy or sustainability officers revealed a whole host of energy programmes, including those represented on various geographical scales (e.g. district-wide; county-wide; and UK-wide) and operation over different timescales. The UK-wide energy programmes consisted of those funded by the government or utility companies, organized under the Carbon Emissions Reduction Target (CERT) scheme (DECC, viewed May 2010). A number of utility companies (e.g. E.on, EDF, British Gas) were contacted and details about their energy programmes were collated. Additionally, the network of Energy Efficiency Advice Centres (EEAC) was approached and interviews with key personnel were conducted. No new energy programmes were identified through this process.

The research methods revealed 44 energy programmes. These represented types and forms, which could not be meaningfully compared due to, for example, frequent changes in qualification criteria, changes in terms and conditions and various merges or divisions of energy programmes. Therefore, for an energy programme to be included in the study it had to fulfil three requirements. First, it was important to include programmes that had sufficient time to penetrate the market and thus have the potential to provide a sufficient number of participants for this study. It was decided that 12 months would be the required length of time. For an energy programme to be included in the study it would therefore have to have been in existence, without any significant changes, for 12 months or more. It would also have to have been actively promoted and implemented for the same amount of time.

Second, given the importance of housing types and socio-demographic influences on participation as identified in Chapter Two, it was essential to choose programmes that were implemented on a relatively large geographical scale. However, due to time and resource constraints it was equally important to establish a maximum size and not allow the geographical area to become too large. Chapter Four provides details of the selected case study area, which consists of the boroughs of Dacorum, Three Rivers and Watford. Therefore, for an energy programme to be selected there have to have been strong evidence (e.g. press articles, poster, direct marketing) that consistent support was provided in the entire case study area. Lastly, in order to compare and contrast aspects of individual programmes and ascertain which of those aspects could lead to greater participation it was imperative to include all programmes, however similar, that met the above two requirements.

After assessing the 44[1] programmes against the three requirements the following 19 were selected: Warm Front; Warmer Homes Greener Herts; Cocoon; E.on Insulation Scheme; British Gas Insulation Scheme; Big Green Boiler Scheme; Energy Labelling of White Goods; Councils' Low Energy Light Bulb Giveaway; Energy of Fuel Suppliers' Low Energy Light Bulb Giveaway; Are You Doing Your Bit?; Commit 20%; Act on CO_2; Save Today Save Tomorrow; Energy Savers Report; Energy for Good; Home Energy Conservation Report; Major Photovoltaic Demonstration Programme; Clear Skies; and Low Carbon Building Programme (for more details see Appendix A).

3.3 Classification of Home Energy Efficiency Programmes in Terms of Key Aspects

This section identifies energy programmes' key aspects and highlights the differences and similarities between them. The initial review of the 19 programmes allowed them to be divided into three broad categories in relation to what they had to offer to potential participants: nine programmes offered grants for insulation and appliances; seven provided advice and education on energy conservation; and three offered grants toward renewable energy technology (Figure 3.1).

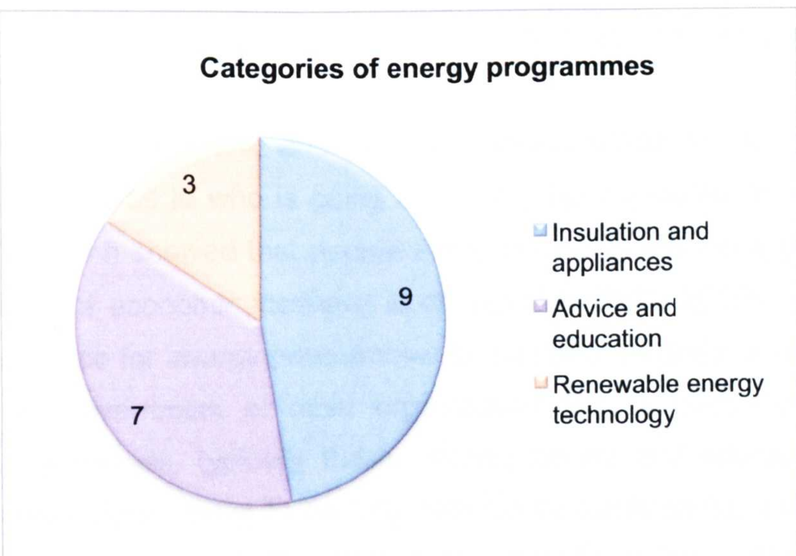


Figure 3.1: Energy programmes divided into three broad categories

[1] The research study was undertaken prior the launch of the Green Deal and Feed-in Tariff initiatives, however the findings and recommendations made here are relevant to both.

Further review and interviews with practitioners and programme providers revealed that the programmes' attributes or key aspects needed to be decided before an energy programme was launched (summarized in Table 3.1). Although reported in a seemingly chronological order, the decisions are often made, as reported by practitioners, simultaneously and do not follow a pre-established process (Figure 3.2).

Figure 3.2: Programmes' design process

Typically, however, a new programme follows the introduction of new legislation and thus aims to achieve the objectives of that particular legislation. It is these objectives that predetermine what measures (e.g. loft insulation) or services (e.g. energy survey) will be offered as part of a programme. Once determined, the nature of the intervention is chosen. There are two possibilities: positive and negative. Whilst the positive intervention has many forms (e.g. money saving, increased knowledge of various opportunities and options leading to energy saving and for some participants better quality of life), negative interventions refer predominantly to increased knowledge of negative consequences of one's actions (e.g. if you do not conserve energy the world will run out of finite resources) (Abrahamse, 2007).

Equally significant, and at times closely linked to the positive approach, is the decision as to who is going to pay for the measures or services offered. Previous research showed that people invest in energy efficiency predominantly when some kind of economic incentive is offered (UK-GBC, 2008b). It is therefore a common practice for energy programmes to be either partially or fully grant-funded by either the government or other organization (e.g. a utility company). However, some programmes, typically those offering advice and education, require no payment, whilst others have to be fully paid for by participants. The provision of a full grant usually carries strict participants' eligibility criteria. Many programmes offering physical improvements to the house also require certain dwelling suitability (e.g. wall cavities can be filled only in houses with cavity walls). Other eligibility criteria are concerned with the participants having to live in the programmes' catchments area or having to be a customer of the funding utility company. Thus a careful consideration has to be given by all programme providers to the issue of eligibility criteria.

It is commonly accepted that in order for an energy programme to achieve its maximum potential (e.g. to spend its allocated budget or to reach a set number of participants) it has to be successfully promoted. Research shows that the most successful promotions utilize as many avenues, approaches and messages as possible (Wolman, 1981, Winett et al., 1982-1983, Winett and Kagel, 1984, Sustainable Development Commission, 2001, Slocum, 2004, Vine, 2008). However, the chosen awareness raising methods have to be appropriate and meaningful to the target audience in order to be successful (do Paço and Varejão, 2010). The programme designers must therefore decide carefully which avenues they are going to use.

It is also widely accepted that greater participation levels can be achieved by making the application process as easy and as convenient as possible (e.g. UK-GBC, 2008a). There are many methods, including post, telephone and internet, that the programme providers can take advantage of to ensure that the maximum number of potential participants can apply. Once an application is made and accepted, in many cases, the participant is expected to carry out some kind of preparatory work, which may include clearing their loft or choosing the most appropriate technology. Programme providers must clearly communicate what type of preparation work, if any, they expect the participant to carry out. They also have to ascertain who can complete the actual works. Can it be the homeowner on a DIY basis, or does it have to be a specialist or general installer? Finally, some providers, predominantly those interested in monitoring their quality of works, choose to contact the participant with follow-up or aftercare questions.

A concise summary of the issues highlighted above is presented in Table 3.1 and it is used as a framework for comparing and contrasting the selected programmes.

Table 3.1: Description of energy programmes' key aspects

Key Aspects	Description
Measure	The term 'measure', for the purposes of this study, refers to the energy programme's range of activity. The activity consists of either hard measures such as insulation or soft measures such as encouraging homeowners to pledge to conserve energy.
Nature of intervention	The programme providers can employ a positive (e.g. saving money) or a negative (e.g. doing harm to the environment) approach to intervention.
Funding	Funding in this instance refers to how the measures are going to be paid for: funded by participant; part-grant funded; fully-grant funded. Some programmes do not require any payment.
Eligibility criteria	Whilst many energy programmes offer free and open participation for all, some energy programmes, predominantly those funded by central government or a private organization, have strict eligibility criteria. Some programmes require dwellings to be suitable for the offered works.
Awareness raising	Awareness raising in this instance refers to the marketing and promotion avenues the energy programme's provider utilizes.
Application methods	Application methods have many forms, including for example the internet.
Preparation work	Preparation work refers to any work needed/expected to be undertaken by the homeowner prior to participation in an energy programme.
Works	The energy programmes were divided following the UK Green Building Council (2008) research findings into categories in relation to whether the programme offered services (e.g. insulation), product (e.g. low energy light bulbs) or whole-house approach (e.g. advice on glazing, insulation, general energy consumption etc.) and whether the improvements have to be carried out by a specialist (e.g. renewable energy technology), general installer (e.g. insulation) or by the participant (DIY).
Aftercare	Some energy programmes carry out an aftercare courtesy phone call or follow-up survey.

3.3.1 Description of Insulation and Appliances Energy Programmes

Out of the 19 selected energy programmes, nine were assigned to the category of insulation and appliances: Warm Front; Warmer Homes Greener Herts; Cocoon; E.on Insulation Scheme; British Gas Insulation Scheme; Big Green Boiler Scheme; Energy Labelling of White Goods; Councils' Low Energy Light Bulb Giveaway; and Energy or Fuel Suppliers' Low Energy Light Bulb Giveaway. The programmes were examined against the framework developed in section 3.3 and the key aspects were compared and contrasted. The most significant similarities and differences between programmes are detailed below and the complete summary of individual programmes is provided in Table 3.2.

The nine programmes in this category represent the greatest range of measures offered by all three categories of programmes. For practical reasons, it was more manageable to subdivide the programmes into groups containing the same or similar measures and to provide any further comparison within those sub-groups. Figure 3.3 shows the sub-division of the insulation and appliances category of energy programmes: five of the nine energy programmes offer cavity and/or loft insulation; two offer new installation and/or upgrade of existing central heating; one provides Energy Labelling of White Goods; and two energy programmes give away low energy light bulbs.

It is important to note that one energy programme offers both cavity and/or loft insulation and central heating installation and/or upgrade. This dual offer is represented in Figure 3.3, suggesting that 10 rather than nine energy programmes were studied.

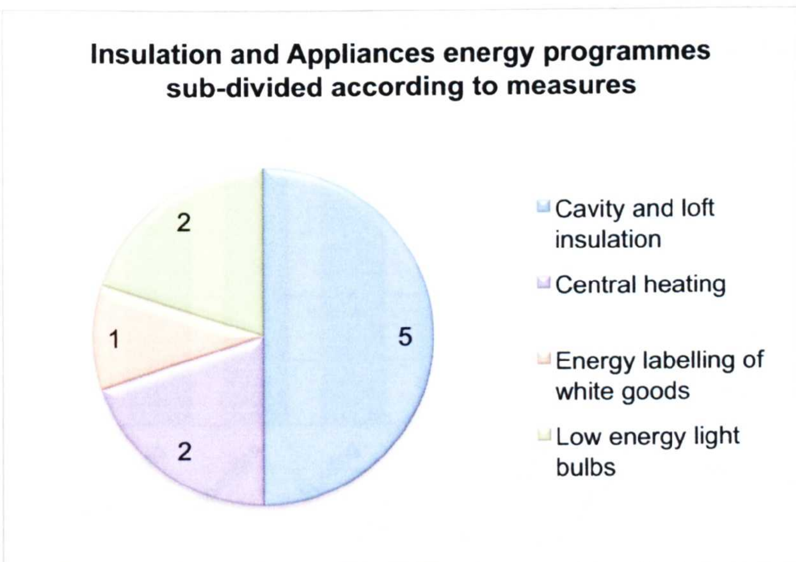


Figure 3.3: Insulation and appliances energy programmes sub-divided according to measures

The review of the five programmes offering cavity and/or loft insulation revealed very few differences between them (summarized in Figure 3.4). The most significant difference between the programmes is the funding aspect, where only one programme is fully grant-funded whilst four are part grant-funded. There are also significant differences in the eligibility criteria, where the fully grant-funded programme carries strict conditions as to who can participate. Further differences between eligibility criteria relate to the programmes' catchment areas and the need to be the funding utility customer. The remaining key aspects are very similar, less significant and differ only marginally.

The following three figures, as well as Figure 3.8 and Figure 3.10, illustrate the number of programmes with the same approaches to the individual key aspects. For example, Figure 3.4 shows that three of the five programmes employ the same approach to awareness raising. The remaining two programmes, although different from the first three programmes, also use the same approach. For details of approaches employed by programmes within the insulation and appliance category see Table 3.2, for advice and education see Table 3.3 and for renewable energy technology see Table 3.4.

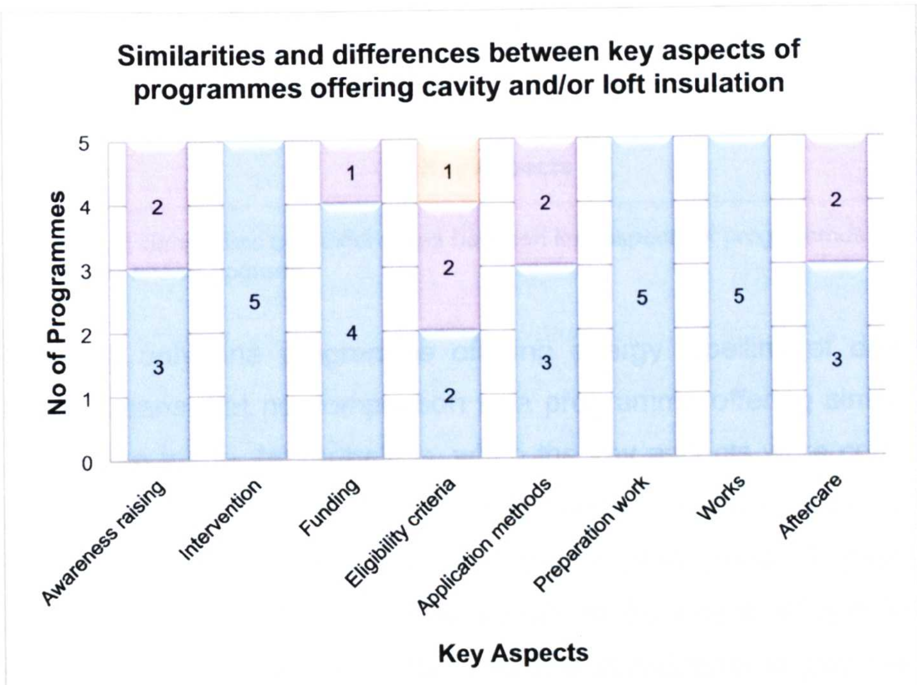


Figure 3.4: Similarities and differences between key aspects of programmes offering cavity and/or loft insulation

Similarly, the most significant differences (presented in Figure 3.5) between the two programmes offering central heating installation and/or upgrade are in funding and eligibility criteria but also in the need for preparation work. Whilst one programme is fully grant-funded, has strict eligibility criteria and does not require participants to do any preparation work, the other programme is part grant-funded, has no eligibility criteria, but requires participants to carry out preparation work. The remaining key aspects differ only slightly.

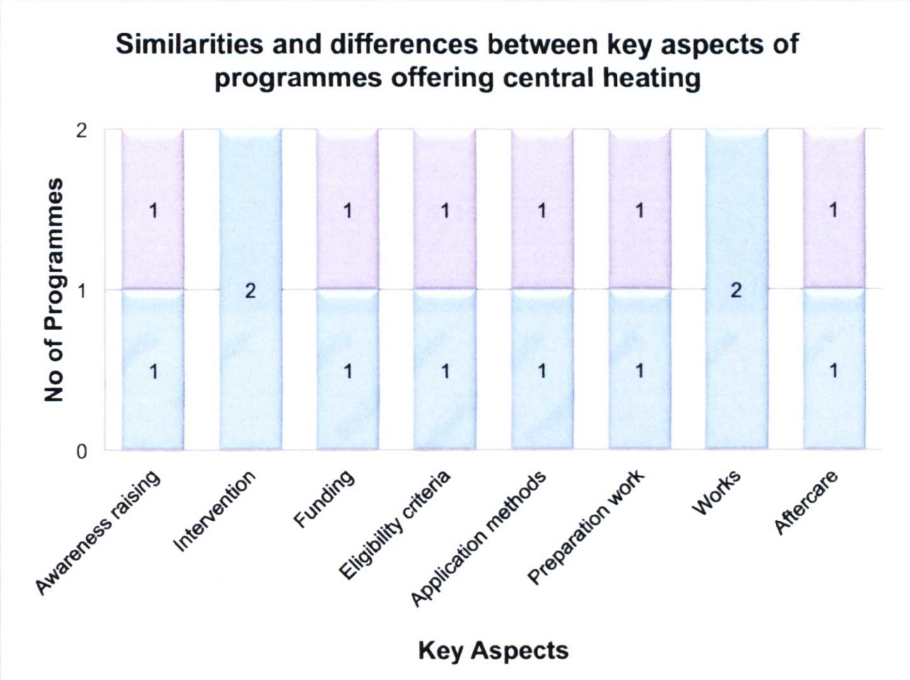


Figure 3.5: Similarities and differences between key aspects of programmes offering central heating installation and/or upgrade

There is only one programme offering energy labelling of domestic appliances, which means that no comparison to a programme offering similar measures could have been made. Nevertheless, when the key aspects were compared to the other programmes in the insulation and appliances category, various similarities were identified. Most notably, the programme also uses a positive approach to intervention and has no eligibility criteria. In the way of differences, this is the only programme in this category that requires participants to pay the full price for the measure and uses a specific approach to awareness raising.

Lastly, the key aspects of the two programmes giving away low energy light bulbs were examined. These programmes represent the greatest similarities between them, with only insignificant differences in awareness raising, eligibility criteria and application methods employed (presented in Figure 3.6).

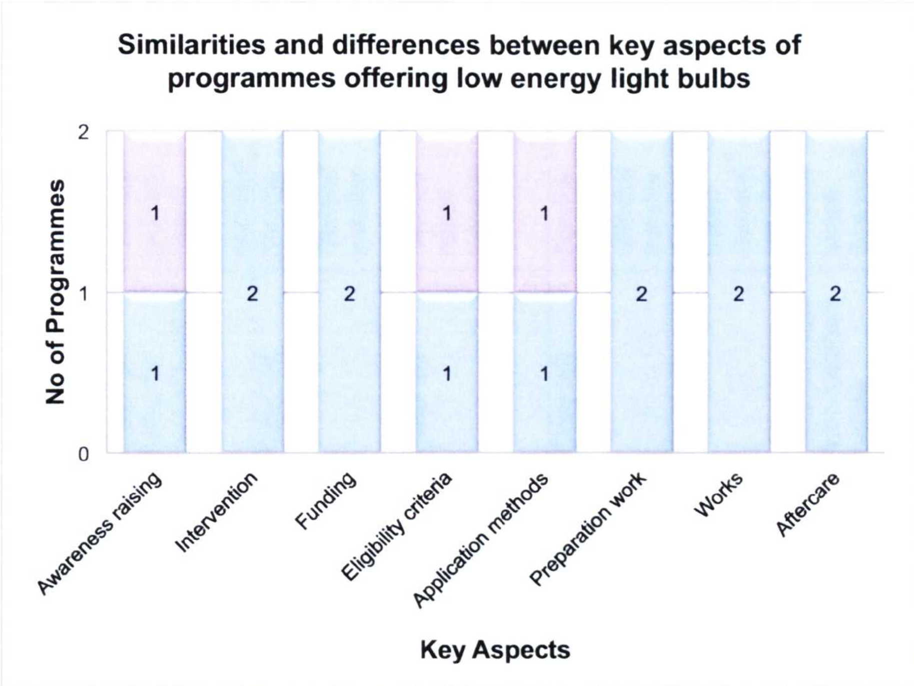


Figure 3.6: Similarities and differences between key aspects of programmes offering low energy light bulbs

In conclusion, the examination of the nine programmes revealed minimal differences not only between programmes offering the same measures, but also between individual programmes in the entire appliances and insulation category. This result supports the UK Green Building Council's findings (2008a) of too many energy programmes offering the same or very similar measures and services. The Council also points out that the plethora of programmes might actually discourage people from participating. Following the detailed review of all key aspects, not just measures, it is reasonable to suppose that the close similarities only add to the potential confusion for homeowners wishing to participate. This supposition is tested in the empirical part of this study (see Chapters Five and Six).

Table 3.2: Key aspects of insulation and appliances programmes

Energy Programme	Measures	Nature of Intervention	Funding	Eligibility Criteria	Awareness Raising	Application Methods	Preparation Work	Works	Aftercare
Warm Front	Loft, cavity wall insulation, central heating	Positive	Fully grant-funded	Benefits	Internet Local press Local campaign Direct mail	Post Internet Telephone	Clear loft None for central heating	Service/ product based Specialist/generalist	Satisfactory phone call
Warmer Homes Greener Herts	Loft and cavity wall insulation	Positive	Part grant-funded	Catchment area	Internet Local press Local campaign Direct mail	Post Internet Telephone	Clear loft	Service based General installer	Satisfactory phone call
Cocoon	Loft and cavity wall insulation	Positive	Part grant-funded	Catchment area	Internet Local press Local campaign Direct mail	Post Internet Telephone	Clear loft	Service based General installer	Satisfactory phone call
E.on Insulation Scheme	Loft and cavity wall insulation	Positive	Part grant-funded	E.on customer	Mass media Internet Direct mail	Internet Telephone	Clear loft	Service based General installer	None
British Gas Insulation Scheme	Loft and cavity wall insulation	Positive	Part grant-funded	British Gas customer	Mass media Internet Direct mail	Internet Telephone	Clear loft	Service based General installer	None
Big Green Boiler Scheme	Discounts for condensing boilers	Positive	Part grant-funded	None	Local press Local campaign	Post	Obtain quotes from installers before applying for grant	Product based Specialist	None
Energy Labelling of White Goods	Energy labels on some domestic appliances	Positive	Funded by participant	None	Point of purchase	None	None	Product based DIY	None

Energy Programme	Measures	Nature of Intervention	Funding	Eligibility Criteria	Awareness Raising	Application Methods	Preparation Work	Works	Aftercare
Councils' Low Energy Light Bulbs Giveaway	Low energy light bulbs	Positive	Fully grant-funded	Depending on funding organization	Local press Local campaign	In person Post	None	Product based DIY	None
Energy or Fuel Suppliers' Low Energy Light Bulb Giveaway	Low energy light bulbs	Positive	Fully grant-funded	Utility customer	None	None	None	Product based DIY	None

3.3.2 Description of Advice and Education Energy Programmes

Seven of the 19 energy programmes could be categorized as advice and education: Are You Doing Your Bit?; Commit 20%; Act on CO_2; Save Today Save Tomorrow; Energy Savers Report; Energy for Good; and Home Energy Conservation Report. Again, the programmes were first reviewed using the framework and the programmes' key aspects were identified; an overview is provided in Table 3.3. The main differences and similarities are described below and presented in Figure 3.8.

Detailed examination revealed that whilst all energy programmes offered information on energy conservation and ways to improve energy efficiency, they had done so by using different and distinctive approaches. They can be divided into three sub-groups (Figure 3.7): three energy programmes encouraged homeowners to save energy by signing up to a pledge; two energy programmes provided tailored information following completion of an energy survey; and two energy programmes provided generic advice on energy conservation and other energy related matters (e.g. climate change).

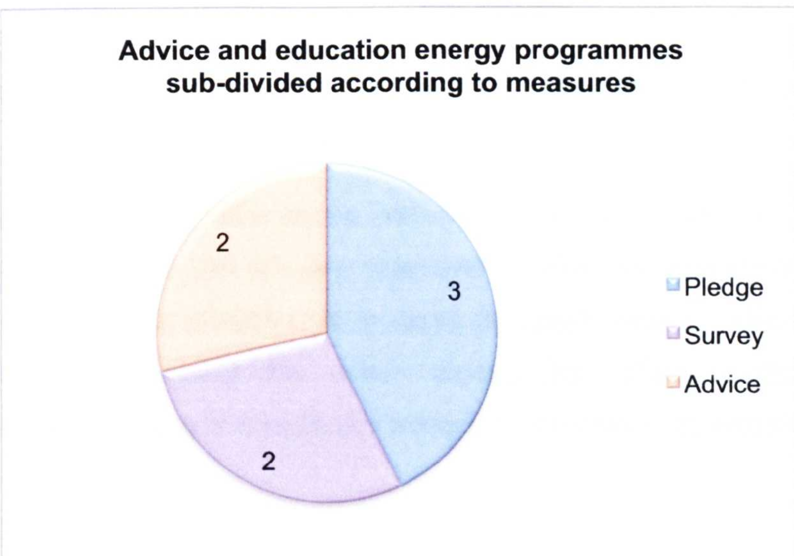


Figure 3.7: Advice and education energy programmes sub-divided according to measures

The detailed review of the remaining key aspects (presented in Figure 3.8) revealed that all seven energy programmes utilized both positive and negative interventions, none imposed eligibility criteria, and none offered any form of aftercare. There are some insignificant differences in the awareness raising, application methods, preparation work and works. The most important difference is in the funding, where five programmes did not require any form of funding, one was fully grant-funded and one expected participants to pay for the services.

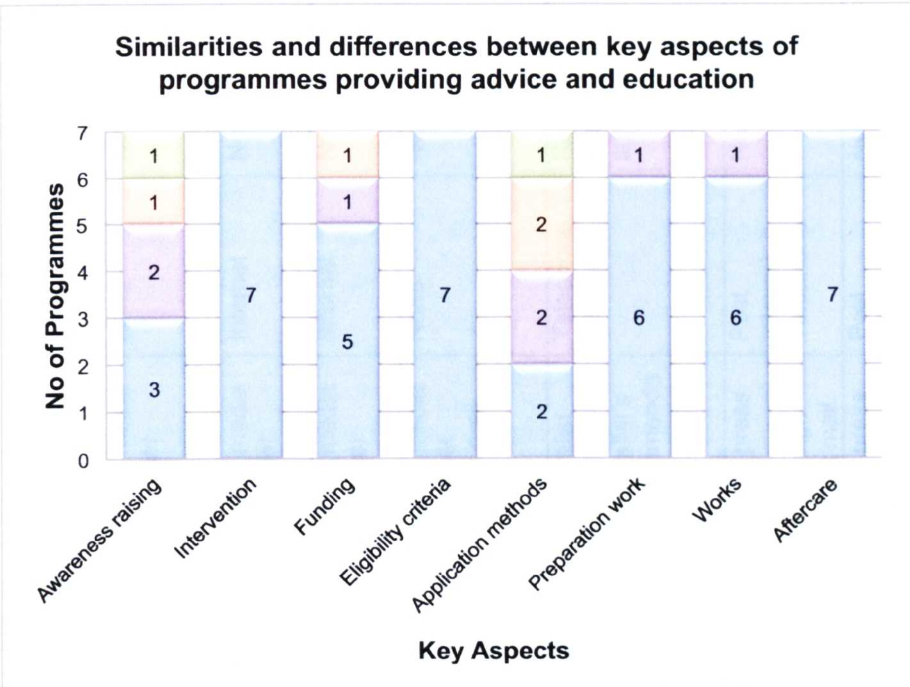


Figure 3.8: Similarities and differences between key aspects of programmes providing advice and education

The identified differences between individual programmes are fairly insignificant. However, as the primary objective of those programmes is to raise awareness of and educate participants in ways to reduce energy consumption, it is important to fully understand the wider issues that affect participation. This theoretical understanding is empirically tested in Chapters Five and Six.

Table 3.3: Key aspects of advice and education programmes

Energy Programme	Measures	Nature of Intervention	Funding	Eligibility Criteria	Awareness Raising	Application Methods	Preparation Work	Works	Aftercare
Are You Doing Your Bit?	Awareness about climate change	Positive Negative	N/A	None	Mass media Internet	None	None	Whole-house approach DIY	None
Commit 20%	Voluntary commitment campaign	Positive Negative	N/A	None	Mass media Internet	Internet	None	Whole-house approach DIY	None
Act on CO_2	Pledge agreeing to save CO_2	Positive Negative	N/A	None	Mass media Internet	Internet	None	Whole-house approach DIY	None
Save Today Save Tomorrow	One of the utilities' awareness raising campaign	Positive Negative	N/A	None	Mass media Internet Direct mail	None	None	Whole-house approach DIY	None
Energy Savers Report	Part of the Home Sellers Pack: energy rating and ways to improve it	Positive Negative	Funded by participant	None	Specialist journals Specialist's recommendation	Telephone Internet	Research and appoint surveyor	Whole-house approach Specialist	None
Energy for Good	Advice on energy saving including a pledge	Positive Negative	N/A	None	Local press Local campaign Direct mail	Post Internet Telephone	None	Whole-house approach DIY	None
Home Energy Conservation Report	Home energy audit report	Positive Negative	Fully grant-funded	None	Local press Local campaign Direct mail	Post Internet Telephone	None	Whole-house approach DIY	None

3.3.3 Description of Renewable Energy Technology Programmes

Three of the 19 energy programmes were categorized as renewable energy technology: Major Photovoltaic Demonstration Programme; Clear Skies; and Low Carbon Building Programme. The summary of key aspects is provided in Table 3.4, and Figure 3.10 illustrates the similarities and differences between them.

Whilst all three programmes offered the same measure in the form of a grant, they each focused on different technologies (Figure 3.9): one was designed for photovoltaic arrays only; one for any approved technology with the exception of photovoltaic; and one provided grants for all approved technology including photovoltaic.

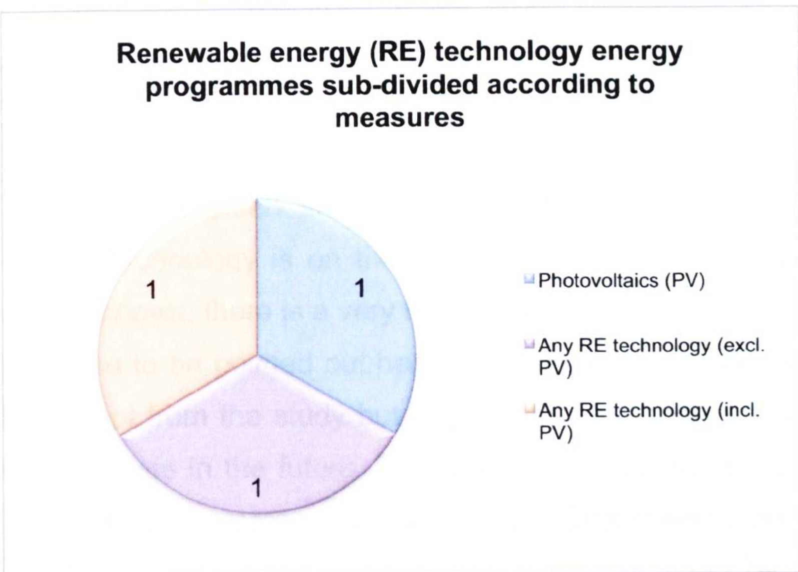


Figure 3.9: Renewable energy technology energy programmes sub-divided according to measures

This group of programmes is the most homogenous of the three categories (Figure 3.10). Most of the key aspects are the same for all of them. The only significant difference is that one programme has eligibility criteria that must be satisfied before applying for the grant. The eligibility criteria are closely linked with the preparation work needed to be undertaken prior to application.

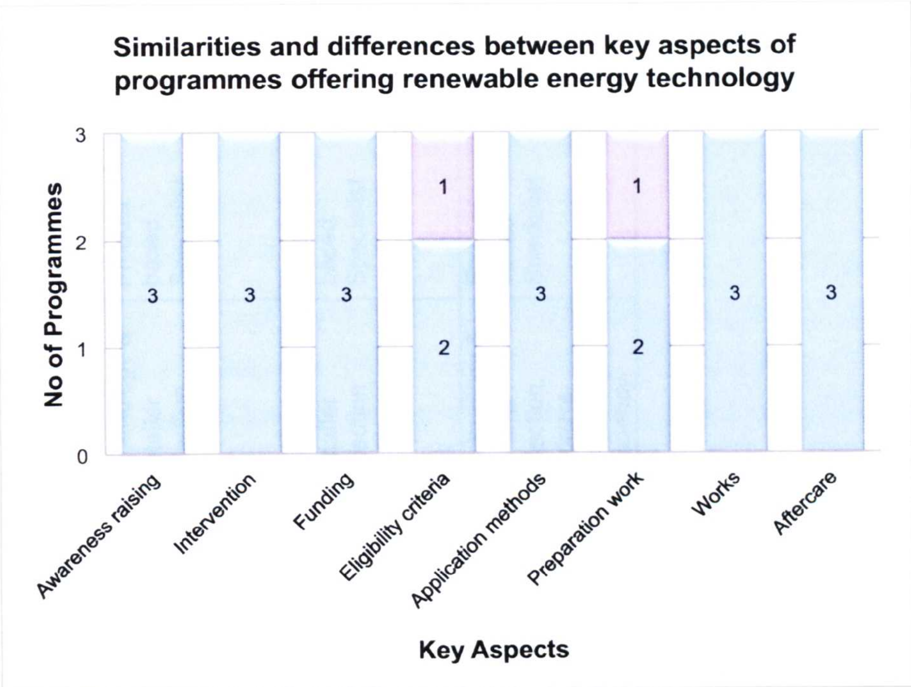


Figure 3.10: Similarities and differences between key aspects of programmes offering grants toward renewable energy technology

The latest research shows that people's awareness and interest in renewable energy technology is on the rise (do Paço and Varejão, 2010). However, as the review shows, there is a very little choice in terms of which programme to participate in. It has to be pointed out here that the current government's feed-in tariff scheme is exempt from the study but may actually provide greater choice and incentive for homeowners in the future. Those programmes, including the feed-in tariff, failed to meet the four requirements for inclusion. The homeowners' perceptions of the three renewable technology programmes are ascertained by the empirical part of the study (Chapters Five and Six).

Table 3.4: Key aspects of renewable energy technology programmes

Energy Programme	Measures	Nature of Intervention	Funding	Eligibility Criteria	Awareness Raising	Application Methods	Preparation Work	Works	Aftercare
Major Photovoltaic Demonstration Programme	PV only	Positive	Part grant-funded	None	Internet Specialist journals/recommendation Point of purchase	Post Internet	Technology & installer selection	Product based Specialist	None
Clear Skies	Various RE technology excluding PV	Positive	Part grant-funded	None	Internet Specialist journals/recommendation Point of purchase	Post Internet	Technology & installer selection	Product based Specialist	None
Low Carbon Building Programme	All available RE technology	Positive	Part grant-funded	Improve energy efficiency	Internet Specialist journals/recommendation Point of purchase	Post Internet	Technology & installer selection, Improve energy efficiency	Product based Specialist	None

3.4 Conclusions

The review of previous studies of interventions revealed limitations in the way those studies were conducted. As identified in Chapter One, the limitations include a selective approach to issues being examined, which leads to a lack of holistic understanding of the subject of effective design of energy programmes. The researchers believed that only by combining studies of the sociological and psychological influences with the mechanics of participation, including approaches to marketing, would it be possible to inform future development of energy programmes. This chapter provides the first step to understanding how homeowners perceive energy programmes.

This chapter therefore examined the selected programmes in the light of theoretical knowledge and practitioners' experience and identified key aspects and approaches to encouraging participation. The similarities and differences between individual programmes were also identified and critiqued. The research findings support concerns raised by the UK Green Building Council (2008) that there are too many active energy programmes with, at times, insignificant differences between them. Whilst this in itself is a significant finding, it is perhaps even more imperative that the results are tested from the homeowners' perspectives. Therefore, the information presented in the last two chapters was used to develop the household questionnaire and interview schedule.

Chapter FOUR

Methodology

Methodology

4.1 Introduction

The UK aims to reduce its domestic energy consumption by homeowners' participation in home energy efficiency programmes, which are designed to encourage people to change their behaviour through the provision of information, advice, education and energy efficient technology. Many studies of factors that determine individuals' behaviour have been undertaken since the 1960s (for example Geller, 2002, Kollmuss and Agyeman, 2002, Bamberg et al., 2003, Arnocky et al., 2007, Bamberg and Möser, 2007, Steg, 2008, Stephenson et al., 2010). Far fewer studies to date have examined how participants themselves perceive those programmes (e.g. Abrahamse et al., 2005). It is the latter issue that is investigated empirically by this study.

This chapter justifies the chosen methodology and research methods: quantitative and qualitative. Section 4.3 provides an explanation of the intervening variables used in this study. The process of selecting factors influencing homeowners' decision to participate, or otherwise, and home energy efficiency programmes for the study is explained in sections 4.4 and 4.5 respectively. Next, an overview of the selected case study area and explanation of the participants' selection process is provided (sections 4.6 and 4.7). This is followed by the description of data collection in section 4.8. Finally, section 4.9 contains the analyses detailing statistical tests undertaken to interpret quantitative data and techniques to analyse qualitative data.

4.2 The Research Context

It is now commonly accepted that any research into behaviour determinants must incorporate theoretical approaches from many disciplines (e.g. Kollmuss and Agyeman, 2002, Abrahamse et al., 2005, Steg, 2008), and it is also recognized that the lessons learnt from such studies should be translated into any new energy programmes' design (UK-GBC, 2008a). However, recent studies of factors influencing behaviour have produced frameworks that are extremely complex (e.g. Kollmuss and Agyeman, 2002). Determining how successful an energy programme has been in causing a change in behaviour requires before-and-after evaluation, which requires a study of at least five years, more than is available for a PhD study. Furthermore, studies of interventions are often criticized for concentrating on a single aspect or factor (e.g. approaches to behaviour change) that influences participation rather than the inter-connectivity of many factors and attributes (see for example Abrahamse et al., 2005, Steg, 2008). Due to constraints and criticisms, this study aims to identify the homeowners' perceptions of existing energy programmes, to identify features that encourage and discourage participation and to propose a new theoretical framework for the development of future programmes. The research aim is therefore:

> **To investigate, from the homeowners' perspective, the efficacy of programmes intended to improve energy efficiency in homes.**

4.2.1. The Research Framework

As stated in Chapter One, to satisfy the research aim four objectives were developed:

- **To identify key factors that hinder as well as encourage, motivate and facilitate homeowners' participation in intervention programmes.**

A two-strand approach to address this objective was undertaken. Firstly, factors argued to influence (encourage and discourage) participation in energy programmes were identified through an extensive literature review of published ideas and studies. Secondly, the findings were used to develop research instruments (a household questionnaire and semi-structured interviews), which were used to gather data on homeowners' views of programmes. This enabled not only the validation of established hindering and motivating factors, but also the identification of any other barriers and motivators for participation in energy programmes.

The second objective was concerned with the examination of existing energy programmes and providing a logical and structured manner of explaining and describing the selected programmes. The objective therefore was:

- **To identify and classify, in terms of key aspects, UK home energy efficiency programmes aimed at encouraging households to reduce energy consumption.**

Understanding of energy programmes' key aspects enables commonalities and differences between programmes to be identified and allows homeowners' views to be accurately linked to them. This information facilitates the subsequent analysis of empirical data.

The third objective, identifying the hindering and motivating factors' significance to homeowners and, in homeowners' opinions, programmes' success in dealing with them, was therefore a final step in developing a complete understanding of participants' perceptions of energy programmes:

- **To assess how well hindering and motivating factors are addressed in current programmes designed to encourage homeowners to reduce energy consumption in the home.**

By combining the theoretical understanding and empirical results, a complete understanding of how the effectiveness of programmes (in terms of the factors above) related to aspects of these programmes was achieved. This knowledge can then be used to guide the development of future programmes.

The final research objective was concerned with bridging the theoretical–practical gap and it sought:

- **To develop an evidence-based theoretical framework for devising programmes that are likely to be effective in terms of homeowners' participation.**

The theoretical framework is based on the existing programmes' key aspects but suggests changes derived from understanding of homeowners' experiences and expectations.

As outlined in Chapter One, each of the four objectives was approached from as wide a perspective as possible. In order to collect such a wide variety of information, two research instruments were designed: a questionnaire and an interview schedule. They were both developed to gather information explaining the intervening variables such as interest in energy conservation, and to identify differences between various groups of respondents (e.g. male versus female). Further, the instruments were designed to gather a vast amount of data not predetermined by literature review. This was achieved by the use of open-ended questions. The collected quantitative data has been subjected to various statistical tests aiming to reveal any relationships between variables, and qualitative data were transcribed, coded and analysed.

4.2.2. The Research Approach

In order to complete the aim, the study took a comprehensive approach to examining and identifying the selected programmes' key aspects and investigating their efficacy by collecting and analysing primary data through the use of a household survey and interviews. The questionnaire was used to collect data relating to the theoretical and actual barriers and motivators (questionnaire section A), opinions on the 19 studied energy programmes (questionnaire section B), ideas for the design of new programmes (questionnaire section C) and general house typologies and socio-demographic information on the householders (questionnaire section D). The questionnaire was followed up by semi-structured interviews with 50 carefully selected volunteers (for explanation of participants' selection see section 4.7) revealing explanations for relationships found by analysing questionnaire responses.

The combined quantitative/qualitative methods approach was chosen for three reasons. First, the household survey not only enabled the study of a large sample of programmes, but also allowed for a cost- and time-effective method of data collection from a large sample of participants. The large sample provided opportunities for better control of the intervening variables and for patterns in the numerical data to emerge. The patterns were used to make generalizations about the observed phenomena (Ragin, 1994) and applied in the proposed theoretical framework for new programme design. The second reason for using a survey was the ability to collect a large amount of quantitative but also qualitative data through the use of open-ended questions. To collect the same amount of qualitative data through interviews would not be feasible or practical. However, whilst the large amount of qualitative data was necessary to ascertain the homeowners' perceptions of the selected programmes, it was time-consuming to analyse and categorize it, and allowances in the research schedule had to be made.

The third reason for having a combination of quantitative and qualitative data were to enable identification of opinions toward energy programmes and reasons for participation, or otherwise. Using quantitative scales can identify relationships, and their variations, between participants, positive or negative perceptions and individual features of programmes (Robson, 2002), while the semi-structured interviews provided explanations for the relationships found. The examination of energy programmes from homeowners' perspectives encompassing a whole range of issues (e.g. beliefs, marketing) is novel, therefore there are few tried and tested methods (Steg, 2008). The approach undertaken in this study was to identify factors influencing participation (Chapter Two) and review the selected programmes (Chapter Three). The knowledge obtained was used to create research instruments enabling the collection of vast amount of quantitative and qualitative data. The approach can be replicated and extended if necessary in similar studies.

In order to identify relationships between variables a cross-sectional design was used, as it enabled the study of a large number of participants and allowed different groups of respondents to be compared. The decision to carry out cross-sectional research was reached after considering the practical and theoretical constraints of other appropriate designs. As mentioned above, the before-and-after method of evaluation was not practically possible to carry out in the given timeframe. Additionally, consideration was given to factors outside the scope of this study, such as moving house or changes in priorities that may affect homeowners' behaviour over time. The limitations of the cross-sectional design were also considered before a final decision was made. Perhaps the greatest drawback of this method is that causal influences cannot be established and, whilst it enables the investigation of relationships between variables, the direction of these cannot be ascertained (De Vaus, 2004). It is also important to bear in mind that while the questionnaire was designed to also address factors identified by literature review, the responses may be influenced by variables not considered by this research (Oppenheim, 2006).

4.3 Intervening Variables

Participation in energy programmes is highly likely to be affected by numerous variables and it is important to account for at least some of those (Robson, 2002, Bryman, 2004, De Vaus, 2004). It is common practice to measure socio-demographic and socio-economic characteristics of respondents so that the impact of factors such as gender and age can be tested. Previous research and methodological theory have shown that these factors can have varying level of impact on programmes' participation (Hargreaves et al., 2010, Loughnan et al., 2010, Scannell and Gifford, 2010, Sparks et al., 2010). Key intervening variables (see Table 4.1) such as age, gender and economic status were included in this research. Also included were measures relating to the household such as type of accommodation, age of property and type of external wall construction. As this research was concerned with owner-occupiers only, tenure was not included as an intervening variable.

Table 4.1: Socio-demographic and socio-economic intervening variables

Intervening Variable	Type of Variable and Unit of Measure or Name of Categories Used	Source of Data
Age	Interval: under 41, between 42-56, between 57-69, and 70 and over.	Household questionnaire; section D
Gender	Dichotomous: male/female.	Household questionnaire; section D
Economic status	Categorical: employed/self-employed, retired, other.	Household questionnaire; section D
Type of accommodation	Categorical: detached, semi-detached, terraced, and other.	Household questionnaire; section D
Age of property	Categorical: pre 1900-1929, 1030-1975, 1976-2006, post 2007, and don't know.	Household questionnaire; section D
Type of external wall	Categorical: solid wall, cavity, timber frame, and other.	Household questionnaire; section D

Previous research has also identified other individual and contextual intervening variables that affect participation in energy programmes (see Table 4.2). The established variables were used in this research (section A of the questionnaire), but the opportunity to expand on these and introduce new variables was given to homeowners in the questionnaire sections B and C and the semi-structured interviews. Additionally, given the debate among researchers of the importance of marketing and advertising (do Paço and Varejão, 2010, Ockwell et al., 2009) and the established belief that people in general have no awareness of the amount of existing programmes (UK-GBC, 2008a), communication as an intervening variable was also included in this research.

Table 4.2: Individual and contextual intervening variables

Intervening Variable	**Indicator**	**Type of Variable and Unit of Measure or Name of Categories Used**	**Source of Data**
Belief in environmental statements about climate change	Statements reproduced from DEFRA's research (2007). Scientists will find solution; climate change beyond control; humans will find a way; too much effort; effects too far in the future; environment is low priority; my behaviour does not contribute to climate change; hard to change habits	Likert scale: strongly disagree, disagree, neither agree or disagree, agree, strongly agree	Household questionnaire; section A
Interest in energy conservation	Level of interest in energy conservation	Likert scale: very interested; quite interested; neither interested or disinterested; quite disinterested; very interested	Household questionnaire; section A
Established Individual and Contextual Barriers	Too expensive; lack of knowledge of the best solutions; lack of time; difficulty finding a reputable installer; likely savings too small; building not suitable; would spoil the character of the house; disruption caused by work; other	Ranking: 1 to 8 with 1 being the most important and 8 the least important	Household questionnaire; section A
Other Barriers	None	Opened questions	Household questionnaire; sections B and C Interviews

Intervening Variable	Indicator	Type of Variable and Unit of Measure or Name of Categories Used	Source of Data
Established Individual and Contextual Circumstances	Extending house; converting loft; moving into new property; replacing heating system; replacing appliances; rising energy costs; special offer/grant availability; friend's recommendations; no special circumstances; other	Ranking: 1 to 9 with 1 being the most important and 9 the least important	Household questionnaire; section A
Other Barriers	None	Open-ended questions	Household questionnaire; sections B and C Interviews
Established Individual and Contextual Motivators	To reduce the amount of harmful emissions; to save money on fuel bills; to preserve finite fuel resources; to improve saleability of my house; to comply with building regulations; other	Ranking: 1 to 5 with 1 being the most important and 5 the least important	Household questionnaire; section A
Other Motivators	None	Open-ended questions	Household questionnaire; sections B and C Interviews
Communication	Administrative organization: central government; local council; voluntary organization; energy or fuel supplier; community group; none; don't mind; other None	Ranking: 1 to 7 with 1 being the most important and 7 the least important Open-ended questions	Household questionnaire; section C Interviews
	Geographical size of the programme: UK-wide; regional; county-wide; district-wide; community based; don't mind; other None	Ranking: 1 to 6 with 1 being the most important and 6 the least important Open-ended questions	Household questionnaire; section C Interviews
	Marketing strategies: TV advertisement; internet advertisement; radio advertisement; local council campaign; word of mouth; don't mind; other None	Ranking: 1 to 7 with 1 being the most important and 7 the least important Open-ended questions	Household questionnaire; section C Interviews

4.4 Selecting Behaviour Determinants

The literature review in Chapter Two enabled the identification of barriers, circumstances and motivators proven to be significant influences on an individual's behaviour (Table 4.3). Once selected, the behaviour determinants were subjected to an examination against energy programmes' key aspects in order to determine how well, if at all, they are being addressed by current programmes. The theoretical examination provided a starting point for empirical evaluation of energy programmes from homeowners' viewpoints (Chapter Seven). The behaviour determinants were tested by postal questionnaire (for analysis see Chapter Five) and semi-structured interviews (for analysis see Chapter Six).

Table 4.3: Behaviour determinants selected to be tested empirically in this study by household questionnaire

Theoretical Individual Barriers	Theoretical Contextual Barriers and Motivators	Theoretical Individual Motivators
Lack of knowledge	Inappropriate communication	Money savings
Lack of available funds	Unsuitable infrastructure	Availability of incentives
Lack of time	Rising energy costs	Altruistic values
Lack of trust		Right circumstances

4.5 Selecting Energy Programmes

As highlighted in Chapter One, the number of available home energy efficiency programmes is vast, and it was therefore important to select a manageable number of programmes as it was impractical to ask homeowners about all available programmes. More importantly, programmes could not be meaningfully compared and contrasted given the differences in their sizes (e.g. differing time scales of existence or the geographical area which they have covered). Selected energy programmes had to fulfil three requirements (for more details see Chapter Three, section 3.2). First, bearing in mind the relatively low participation rates identified in Chapter One, it was important to select only those programmes that enough participants knew about. One way to achieve that was to select programmes that had been in existence, without any significant changes, for 12 months or more.

Second, taking into account socio-demographic influences on participation, it was important to select programmes that were promoted and implemented across the entire case study area (see section 4.6). The third and final requirement considered the need to compare and contrast similarities and differences between individual programmes in order to identify which features encourage participation and which do not: it was essential to select not only programmes that were as different from each other as possible, but also programmes that were very similar with only marginal differences.

The extensive desktop study revealed 44 home energy efficiency programmes. They were all judged against the four requirements and 19 programmes were shortlisted:

- Warm Front
- Warmer Homes Greener Herts
- Cocoon
- E.on Insulation Scheme
- British Gas Insulation Scheme
- Big Green Boiler Scheme
- Energy Labelling of White Goods
- Councils' Low Energy Light Bulb Giveaway
- Energy or Fuel Suppliers' Low Energy Light Bulb Giveaway
- Are You Doing Your Bit?
- Commit 20%
- Act on CO_2
- Save Today Save Tomorrow
- Energy Savers Report
- Energy for Good
- Home Energy Conservation Report
- Major Photovoltaic Demonstration Programme
- Clear Skies
- Low Carbon Building Programme

In order to compare the programmes and identify what makes a programme successful, from homeowners' points of view, it was essential to recognize aspects that the programmes have in common (presented in Table 4.4).

Table 4.4: Energy programmes' key aspects

Key Aspects	What was being measured
Measure	What type of measures (e.g. grants toward insulation, advice, or grants toward renewable energy technology) is on offer?
Nature of intervention	What type of intervention (e.g. positive such as saving money or negative such as doing harm to the environment) is employed?
Funding	How are measures going to be paid for?
Eligibility criteria	What does homeowner have to meet/do in order to take part in a programme?
Awareness raising	What type of awareness raising avenue (e.g. internet) is employed?
Application methods	How does homeowner apply for participation?
Preparation work	Does homeowner have to do anything to prepare for participation?
Works	What type of works will be done and who can carry them out?
Aftercare	Is there any type of aftercare/follow up?

4.6 Selecting Case Study Areas

As explained in Chapter One, home energy efficiency programmes are available throughout the country. Therefore, some decisions had to be made about the scale, number and type of areas chosen. In terms of scale, it seemed that the borough, or district, level was appropriate. The programmes' providers and promoters also deal with each borough or district on an individual basis. Therefore, it is the level at which the effects of approaches to promotion and other variations can be measured. Most information on participation is also recorded at the borough level and thus provides details of the potential study population.

In terms of the number of case study areas required, it seemed that, in order to achieve the depth of analysis required within given time and resource constraints, three case study areas were likely to be the maximum that could be managed. The three case study areas provided details of 2,122 potential study participants. The questionnaire was posted to 100 per cent of the research population. From the respondents, 50 participants were selected for the semi-structured interviews.
Lastly, consideration of the type of borough to be chosen had to be given. In considering the aims of the research, several criteria for selection were apparent. The most important was for the chosen boroughs to have promoted and enabled participation in the entire selected sample of home energy efficiency programmes. Additionally, boroughs that comprised a wide variety of housing stock in private ownership and wide-ranging socio-demographic composition, which would be representative of the UK, were required. After undertaking research into a number of

possible areas – Dacorum, Three Rivers and Watford – were chosen. They were seen as appropriate cases for the following reasons:

4.6.1 Dacorum

Out of the three case study boroughs, Dacorum covers the largest geographical area (213km^2) with the smallest population density (652 persons per km^2). The total population of Dacorum is approximately 138,600. The ethnic make up is predominantly white (93 per cent), with a small minority of South Asian (3.2 per cent), black (1.4 per cent) and mixed race (1.5 per cent) (Dacorum Council, 2009).

The figures for domestic energy reduction as reported by the Home Energy Conservation Officer in 2005 exceeded the national average of 16.71 per cent by 2.89 per cent (DEFRA, 2006). The national deprivation index places Dacorum below average by 5.24. The index for income levels shows Dacorum also below the national average by 8.5 although the employment figures exceed the national average by 14.5 (CLG, 2008).

Dacorum's private housing represents 70.4 per cent of the total housing stock. The main type of dwelling is terraced (34 per cent), followed by semi-detached (25.5 per cent), detached (23.9 per cent) and flats, maisonettes or apartments (18 per cent). Other housing types include caravans and houseboats. The average Standard Assessment Procedure (SAP) rating of private housing is 56 (The National Statistics, 2001-2008). Dacorum's main settlement, Hemel Hempstead, is a relatively new town with its housing dating to 1950s. Some outer areas, however, have dwellings dating to the 1900s (Dacorum Council, 2009).

Dacorum therefore represented the required housing mix in private ownership with wide-ranging socio-demographic composition. Dacorum Council and the responsible Energy Efficiency Advice Centre could prove that the entire selection of home energy programmes was promoted in the whole district for the required time period using various marketing approaches. They were also enthusiastic about the research and agreed to provide homeowners' details.

4.6.2 Three Rivers

Three Rivers covers an area of approximately 89km^2 and is home to around 86,400 residents, with population density of 973 persons per km^2. The ethnic make up of Three Rivers is largely white (89.4 per cent). South Asian (5.7 per cent), black (2 per cent), mixed (1.7 per cent) and Chinese and others (1.2 per cent) make up the rest of the population (Three Rivers District Council, 2009).

The figures for domestic energy reduction as reported by the Home Energy Conservation Officer in 2005 exceeded the national average of 16.71 per cent by 3.1 per cent (DEFRA, 2006). Three Rivers' deprivation is below the national average of 15.97, scoring 10.74. The trend is repeated by both the income and employment indices, which exceed the national average of 177.50 by 121.5 and 133.5 respectively (CLG, 2008).

Three Rivers' private housing represents 77.1 per cent of the total housing stock. The main type of dwelling is semi-detached (37.1 per cent), followed by detached (28.4 per cent), terraced (19.3 per cent) and flats, maisonettes or apartments (16.3 per cent). The average Standard Assessment Procedure (SAP) rating of housing in private ownership is 56 (The National Statistics, 2001-2008). Three Rivers district was formed by the amalgamation of various settlements previously managed by the Outer London authorities. Due to the amalgamation, there is a broad variance in the housing construction ages. Many houses within Three Rivers were built pre-1900, with another peak in new construction around the 1930s. Many properties were built after the Second World War when a non-traditional building construction (e.g. concrete buildings) was being piloted (Three Rivers District Council, 2009).

Again, Three Rivers offered the desired mix of housing types and socio-demographic composition. Three Rivers District Council and the responsible Energy Efficiency Advice Centre were keen to be involved in the research and agreed to provide homeowners' details, but could also prove the continuous support and promotion of all 19 programmes.

4.6.3 Watford

Watford is the smallest, in terms of area covered (approximately 22km^2), of the three case study areas. However, its 80,000 residents make Watford the most densely populated borough of the three (3,722 residents/km^2). The ethnic makeup of Watford is predominantly white (83 per cent), with the largest representation (9.2 per cent) of South Asian population within the three selected boroughs. Black (3.5 per cent), mixed (2.5 per cent) and Chinese and others (1.6 per cent) make up the rest of the population (Watford Borough Council, 2009).

The figures for domestic energy reduction as reported by the Home Energy Conservation Officer in 2005 exceeded the national average of 16.71 per cent by 6.19 per cent (DEFRA, 2006). Watford's deprivation is close to the national average of 15.97, scoring 15.81. However, both the income and employment indices exceed the national average of 177.50 by 74.5 and 97.5 respectively (CLG, 2008).

Watford's private housing is 73 per cent of the total housing stock. The main type of dwelling is terraced (31.8 per cent), closely followed by semi-detached (31.7 per cent), flats, maisonettes or apartments (27 per cent), and detached (12 per cent). Other housing types include caravans and houseboats. The average Standard Assessment Procedure (SAP) rating of privately owned housing is 61 (The National Statistics, 2001-2008). Watford saw its boom in housing construction around the 1930s. Construction continued apace until approximately 1975, with a large proportion of properties being built after the Second World War (Watford Borough Council, 2009).

Watford Borough Council and the responsible Energy Efficiency Advice Centre agreed to provide homeowners' details representing various socio-demographic composition from various housing types. Watford had a long-standing, active role in promoting all 19 selected energy programmes.

4.7 Selecting Participants

The research population is limited to owner-occupiers because the identified programmes are primarily aimed at those households, and further limited to those who had expressed an interest in energy efficiency through contacting either the relevant local authority or the local Energy Efficiency Advice Centre (EEAC) – this is to exclude those who had not heard about any of the identified programmes and would therefore not have had views on their merits and problems. Furthermore, by limiting the study to those 'interested' homeowners, the research was able to identify the percentage of homeowners who progressed from an interest into an action, but was also able to ascertain in more depth what features are necessary for action to be taken.

The total research population from the three case study areas was 2,122 homeowners. In order to produce reliable results, the entire population was included in the quantitative part of the study and 50 participants were selected for semi-structured interviews. The interviewee selection took into consideration several aspects, including: place of residence; participation/non-participation in a programme; gender; age; employment status; age of property; and type of property. The sampling framework (Appendix E) ensured that the selected sample was representative of the entire research population and enabled the study of individual and contextual factors influencing participation.

4.8 Data Collection

Chapter One highlighted a number of drawbacks in the existing interventions. It suggested there were difficulties in achieving significant participation levels, especially where a number of home energy efficiency programmes offer similar services and/or incentives. Therefore a method of investigation was needed that allowed an exploration and identification of issues leading to participation; a method that was structured yet open to the inclusion of any other factors that may be relevant. Again, the starting point for the selection of a method was a review of existing studies aimed at understanding participation in interventions.

There have been relatively few systematic studies of participation in interventions and even fewer studies of homeowners' perceptions of UK home energy efficiency programmes. However, those that have been undertaken have been very useful in providing insights into methodological issues, which are important to the study of homeowners' perception of the selected programmes. A review of these studies is presented in Chapter Two.

The research methods used in the past have been largely quantitative, but rather limited in subject areas (i.e. studies are typically based in one discipline). The review of previous studies highlighted, again, the need to have a good understanding of barriers and motivators experienced by homeowners in their environment or context, and to identify the means by which participation could be evaluated in a cross-issue and multidisciplinary manner. For the purpose of this study primary data from household survey and semi-structured interviews were collated: a postal questionnaire was used to collect information regarding individual's opinions on hindering and motivating factors to energy programmes participation, experiences with established programmes as well as ideas for the development of new energy programmes and household profile data; interviews were used to collect greater details behind the interviewees' decision of whether or not to participate in a programme and enabled the comparison of responses between programmes' participants and non-participants.

4.8.1. Household Questionnaire

The use of a household survey (Appendix C) enabled a fast and reliable method for gathering and processing a large amount of data (Bryman, 2004). The reviewed literature and the examination of selected energy programmes guided the questionnaire design. As the research was interested in establishing the overriding motivations toward participation in energy programmes, the experiences with participation in a programme(s), ideas for design of new programmes and general questions related to homeowners and their homes, the questionnaire was divided into four sections, each dedicated to collect specific data: section A asked questions related to the theoretical barriers and motivators identified by literature review; section B elicited respondents' opinions and experiences with the selected energy programmes; section C encouraged respondents to 'design' a new programme; and section D collected data related to socio-demographics. Even though questionnaires are typically used to collect a large amount of quantitative data using closed questions, the nature of the subject being studied by this research required open-ended questions to be used as well. It was important that the questions were asked without suggesting or leading the respondent in any way. Attention was therefore given to removing jargon, or ambiguous and technical terms, following an extensive pilot test in the field (Robson, 2002, Pallant, 2007).

Consideration was given to the administration of the questionnaire and a decision was reached to post the questionnaire together with a pre-paid envelope to 100 per cent (n=2,122) of the research population. The time and resources did not allow for second posting or collection by person, although if the response rate fell below 30 per cent a second post would be the preferred option for reaching a large response rate. The population sample was obtained after permission from the relevant authorities, from the local Energy Efficiency Advice Centre (EEAC) in Milton Keynes. The EEAC's database contained addresses of homeowners in the case study area who have participated or enquired about any of the selected programmes and gave permission to be contacted in the future. The sample was relatively smaller than initially anticipated and therefore the entire sample was used.

A response rate of 34 per cent was achieved. A total of 721 completed questionnaires were received and this was considered satisfactory for the proposed statistical analysis as this would provide reliable and valid data representative of the whole sample. Table 4.5 shows the response rates by case study area.

Table 4.5: Household questionnaire response rates by case study area

Case Study Area	Total Number of Questionnaires Sent	Number of Questionnaires Returned	Percentage Returned
Dacorum	1016	428	42%
Watford	564	192	34%
Three Rivers	542	101	19%[1]
Overall	2,022	721	34%

[1] A large number of homeowners from Three Rivers reported change of ownership, which led to the lack of knowledge of programmes in which the previous owners participated.

4.8.2. Interviews

As suggested in Chapter Two, some theoretical individual barriers such as personal beliefs and experiences could be more effectively teased out by conducting semi-structured interviews. However, conducting interviews takes skill and experience, so that the interviewer does not lead the interview in any way by suggesting possible constraints to participation. It was important to be aware of, and avoid, sources of bias during the interviews (Strauss and Corbin, 1998, Oppenheim, 2006). Semi-structured interviews were perceived as the most appropriate form of interview as they allowed for prompts to be used throughout. The interviewees were selected from volunteers responding through the postal questionnaire. The interviewees' selection has taken into consideration the following criteria: energy programme in which an interest has been expressed; gender; age; economic status; age of property; and type of property. It was important to select interviewees that would be representative of the entire research population, but also representative of each selection criteria. The selection sampling frame and the interview transcript is available in Appendix E.

It was equally important to interview people with actual experiences of the selected energy programmes as well as homeowners who did not proceed beyond enquiry, in order to determine the reasons for non-participation and to learn about real experiences of the programmes. Interview schedules were therefore devised for the two groups that consisted of key aspects' thematic questions derived from literature review and questionnaire data analysis, which allowed the interviewees to be probed on issues needing clarification. In this way interviews could be easily compared, but also provided a wealth of detailed information (Oppenheim, 2006, Pallant, 2007). A total of 50 interviews were conducted in the space of two months. Fifty interviews were regarded as sufficient to provide robust and reliable data. Table 4.6 summarizes the selected participants.

Table 4.6: Interview participants by case study area

Case Study Area	Programme Participants	Programme Non-participants	Gender
Dacorum	4	14	Male
	2	9	Female
Watford	1	2	Male
	6	4	Female
Three Rivers	2	4	Male
	1	1	Female

4.9 Data Analyses

The data from questionnaires was entered into the Statistical Package for Social Sciences (SPSS). The analyses investigated the order of importance of perceived barriers that hinder respondents' participation and the motivators that could encourage respondents to participate. It also investigated how, from respondents' viewpoints, those barriers could be overcome and motivators strengthened. Following the research debate on the role of gender, the investigation turned to analysing whether there were significant differences in perceptions between different genders. To further the debate and to establish whether the participation in energy programmes is influenced by the age of participants various age groups and their perceptions of programmes' key aspects were compared. Lastly, given the range of measures offered by individual programmes, it was imperative to ascertain whether respondents' type and age of accommodation had any impact on participation. Before undertaking any statistical tests, the data were prepared for analyses by removing outliers, identifying missing data and checking for validity and reliability (Pallant, 2007, Sapsford, 1996).

Once treated, the data were subjected to preliminary data analyses using descriptive statistics such as frequencies, which provided important information about the participants, their accommodation and the studied programmes. Descriptive statistics provided the answers for the ranking and open-ended questions determining which barriers and motivators were the most significant for respondents, but they also assisted with the interpretation of more complex analyses. Next, attention was turned to examining the strength of relationships between variables. This was achieved using more complex statistical tests such as Kendall's rank (tau_b) correlation coefficient, one-way MANOVA, one-way ANOVA, Spearman's (rho) correlation and the Chi-square test of independence. The chosen technique was dependent on the nature of variables, for example one-way MANOVA was used for ranking questions with ordinal or continuous variables, while one-way ANOVA analyses were used for variables violating various assumptions. Kendall's rank correlation coefficient was used where two multiple-choice questions were analysed to determine a distribution free test of independence and a measure of the strength of dependence between two variables, as was the Chi-square test of independence.

Qualitative data obtained from questionnaires and interviews was coded, using the open coding principle (Pigeon and Henwood, 1996), and analysed.

4.9.1. Kendall's Rank (tau_b) Correlation Coefficient

Kendall's rank, or tau, correlation coefficient is used to analyse ranking data and as such does not require normal distribution of data (Robson, 2002). In the case of this research study, for example, the assumption is tested that financially motivated actions such as energy conservation are performed regardless of the belief about wider environmental issues.

4.9.2. One-way MANOVA Analysis

One-way between-groups multivariate analysis of variance MANOVA was used to investigate the relationships between multiple independent variables to one dependent variable and the effect of the interaction between independent variables (Pallant, 2007). In order to carry out the analyses successfully, various assumptions have to be true: data is normally distributed; the variances between groups are evenly spaced; the predictor variables are independent of one another; and the outcome variable is continuous (Roberts and Russo, 1999). However, the latter condition contains a degree of flexibility where, if the group sizes are of equal size, the outcome variable need not be continuous. As this was the case in this research where the effect of interaction between various socio-demographics (e.g. gender, age, employment) and barriers and motivators was tested, it was possible to use MANOVA analysis.

4.9.3. One-way ANOVA Analysis

One-way between-groups ANOVA was used to investigate the relationships between single independent variable to one dependent variable and the effect of the interaction between independent variables (Pallant, 2007). As in the case of one-way MANOVA, various assumptions have to be true: data is normally distributed; the variances between groups are evenly spaced; the predictor variables are independent of one another; and the outcome variable is continuous (Roberts and Russo, 1999). One-way ANOVA was used for variables that have violated assumptions, particularly the Levene's test assessing the equality of variances.

4.9.4. Spearman's (rho) Correlation

Spearman's (rho) correlation was used for ordinary or continuous variables and single dependent variable. This test evaluates the degree to which individuals or cases with high rankings on one variable were observed to have similar rankings on another variable.

4.9.5. The Chi-square Test of Independence

The Chi-square test of independence tests the association between two categorical variables. An assumption is made that none of the variables must achieve a count less than five. If that occurs a violation is committed and the test cannot be performed.

4.9.6. Qualitative Data Analysis

Qualitative data obtained from questionnaires was recorded in an Excel spread sheet and interviews were transcribed using interview record cards (see summary in Appendix F). The data treatment followed Miles and Huberman's (1994, p.245-6) thirteen steps to qualitative data analyses: noting patterns, themes and trends; seeing plausibility; clustering; making metaphors; counting; making contrasts and comparisons; partitioning variables; subsuming particulars into the general; factoring; noting relations between variables; finding intervening variables; building a logical chain of evidence; and making conceptual/logical coherence. Prior to undertaking the first interview, a provisional list of coding was prepared from literature review, previous research and questionnaire analysis. Following a transcription of all 50 interviews, data were coded and the provisional list of codes developed into a final, open-coded matrix, making it possible to identify patterns and themes among the data. Where obvious, clusters of data were produced before subjecting the results to data analyses using counting of frequencies and log-linear analysis.

4.10 Conclusions

This chapter has presented the methodologies chosen for the use in this PhD study. The rationale for the selection of behaviour determinants, home energy efficiency programmes case study areas and participants was explained. The methods of data collection were described: data related to barriers and motivators, opinions of existing energy programmes and the design of new programmes was collated through the use of a household questionnaire; and data related to deeper personal experiences and influences was gathered by semi-structured interviews. The relationships and interactions between variables were analysed using Kendall's rank correlation coefficient, one-way MANOVA and ANOVA, Spearman's correlation and the Chi-square test of independence. Qualitative data were analysed using Miles and Huberman's (1994) approach. The results must be treated with caution, but could be used as an aid to future energy programmes' design.

The following chapters (Chapter Five and Six) provide information relating to the results of the data analyses including not only the complex analyses but also descriptive statistics. Chapter Five explores the data obtained from postal questionnaire and ascertains any existing relationships between variables. Chapter Six utilizes the data obtained from questionnaire analyses and offers results from qualitative data examination.

Chapter FIVE

Empirical Evidence from Household Questionnaire

Perceptions of Home Energy Efficiency Programmes: Questionnaire Analysis

5.1 Introduction

Chapters Two and Three provided information on theoretical barriers and motivators to participation in energy efficiency programmes, obtained from literature review and details from examination of current programmes, respectively. The overall aim of this research dictated that the investigation was carried out from homeowners' perspectives, thus in order to satisfy the third objective a complete analysis of data derived from questionnaires and interviews was undertaken. This chapter provides results of the statistical analyses of data derived from questionnaires and provides partial measures of how well barriers and motivators are addressed in current programmes. It also offers partial explanation for relationships between variables and a better understanding of the design for future programmes. Interview results presented in Chapter Six complete the understanding of relationships and provide detailed information of homeowners' experiences with current programmes and their expectations from newly developed programmes. The combined results are then used in Chapter Seven to satisfy the third objective:

- **To assess how well barriers and motivators are addressed in current programmes designed to encourage homeowners to reduce energy consumption in the home.**

This chapter commences with background information and general characteristics of the research participants (from section D of the questionnaire) obtained from descriptive statistical tests such as frequencies (section 5.2). A detailed explanation of the methodology for choosing participants was given in Chapter Four, section 4.7. The results of descriptive statistics aided the interpretation of results from the more complex statistical tests such as rank correlation. Prior to analysing the remaining datasets Kendall's rank correlation coefficient was used to test the assumption made in Chapter One, section 1.6.2, that financially motivated actions are independent of wider environmental concerns (section 5.3).

First, preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance–covariance matrices and multicollinearity and any violations were dealt with accordingly. Next, the data within each section of the questionnaire were subjected to statistical analyses using again descriptive statistics before undertaking more complex analyses using Kendall's rank correlation coefficient, one-way MANOVA, one-way ANOVA, Spearman's correlation and the Chi-square test of independence where appropriate. While this chapter provides summary of the statistical results only, the details of all the tests are contained in Appendix D.

5.2 General Characteristics of Participants

In looking at environmental behaviour determinants, it is not uncommon for socio-demographic and socio-economic factors to have impact on homeowners' participation in energy programmes. It was therefore important to establish the degree to which the research sample was representative, in order to determine whether or not meaningful comparisons between groups of different socio-demographics can be made. The results are presented in Tables 5.1 to 5.3, section 5.2.1.

The UK-GBC (2008a) criticizes the current energy programmes for favouring homeowners in receipt of benefits and thus antagonizing those 'able-to-pay'. In the course of this research it was deemed important to ascertain what percentage of people proceeded from an interest to actual participation in a programme(s). It was further important to determine whether the respondents' economic status could be used as a predictor of respondents' actions. The questionnaire was therefore designed to collect data on economic status. The results are presented in Table 5.4, section 5.2.2.

Lastly, the examination of current energy programmes revealed that they are rather limited in terms of measures or range of activity (for details see Chapter Three). The examination showed for example that insulation programmes are offered for cavity walls, rather than other types of walls, concentrating on houses, rather than blocks of flats. It was therefore important to collect data on the type of houses the respondents live in. The results are presented in Tables 5.5 to 5.7, section 5.2.3. Tenure was not included in the analyses because the research was aimed at owner-occupiers.

5.2.1 Socio-demographics

The overall proportion of male respondents was 48 per cent while 52 per cent were female (Table 5.1). There was therefore a good representation of male and female participants and findings could therefore be generalized.

Table 5.1: Gender of participants

Gender	No of Respondents	Percentage of Respondents
Male	340	48%
Female	373	52%

Data on age was collected in terms of date of birth (Table 5.2). Using SPSS respondents were grouped in four equally represented groups: 41 or under; between 42 and 56; between 57 and 69; and over 70.

Table 5.2: Age of participants

Age	No of Respondents	Percentage of Respondents
41 or under	156	23%
Between 42 – 56	188	27%
Between 57 – 69	159	23%
Over 70	185	27%

The data representing ethnic groups was collected using categorical data for six categories: white; black; Asian; mixed; Chinese; and other. The results presented in Table 5.3 are biased toward the white ethnic group which in itself is a significant finding highlighting that the current programmes attract predominantly white participants. However, it must be reiterated that the ethnic makeup of the case study area was predominantly white and the results are therefore not surprising. Any conclusions drawn from this research can therefore be applied to white ethnic group only and no comparisons between ethnic groups could be made here.

Table 5.3: Ethnicity

Ethnicity	No of Respondents	Percentage of Respondents
White	649	93%
Black/Black British	9	1%
Asian/Asian British	29	4%
Mixed	6	1%
Chinese	1	0%
Other	5	1%

5.2.2 Economic Status

The economic status considers the type of income respondents receive. Categorical data were recorded for seven categories: employed or self-employed; unemployed; retired; looking after family; full time student; long term sick; and other. As the results in Table 5.4 show the majority of respondents fell within the employed or retired category. The remaining categories were amalgamated into one 'other' category for further analyses. The categories therefore were: employed; retired; and other.

Table 5.4: Economic status

Economic Status	No of Respondents	Percentage of Respondents
Employed/Self-employed	403	57%
Unemployed/Seeking work	3	0%
Retired	264	37%
Looking after family/Home	28	4%
Full time student	3	0%
Long term sick/Disabled	4	1%
Other	4	1%

5.2.3 Property Details

As mentioned in the introduction to section 5.2, the examination of current energy programmes revealed that their range of activity, or measures that they offer, is rather limited in scope. It was therefore important to determine the type of houses the respondents live in and cross-examine these results with the results related to respondents progressing from an interest to actual participation in a programme(s). The types of accommodation included in this research were: detached house/bungalow; semi-detached house/bungalow; terraced house/bungalow; end of terrace house/bungalow; flat, maisonette or tenement; and other. The 2001 Population Census (Office for National Statistics, Last viewed January 2011) showed that 80 per cent of people in the UK live in houses, 20 per cent in flats and around 0.4 per cent live in other types of accommodation. Out of the 80 per cent of houses almost a third was made up by semi-detached, followed by an even spread between detached and terraced houses. The results presented in Table 5.5 show that a marginally larger proportion (37 per cent) of respondents in this study live in detached houses or bungalows and 32 per cent live in semi-detached houses or bungalows, thus exceeding the national average. The bias in the data could be attributed to the nature of the population sample, which is determined, among other, by the aspects of the studied energy programmes and the source of the population sample (for detail see Chapter Four, section 4.7).

For further analyses, both categories for terraced properties were amalgamated into one category, and flat, maisonette or other tenement were combined with other types of properties. The categories for further analyses therefore were: detached; semi-detached; terraced; and other.

Table 5.5: Type of accommodation

Type of Accommodation	No of Respondents	Percentage of Respondents
Detached house/Bungalow	267	37%
Semi-detached house/Bungalow	228	32%
Terraced house/Bungalow	122	17%
End of terrace house/Bungalow	62	9%
Flat, maisonette or tenement	34	5%
Other	2	0%

The categories determining the age of property were selected to reflect the major changes in building regulations. The decision to do so followed reasoning that, with tightened regulations, the property becomes more energy efficient, which will predetermine which programmes, if any, the occupant might be interested in. The most represented ages of properties were: 1950–1966 with 27 per cent; 1930–1949 with 21 per cent; and 1901–1929 and 1967–1975, both with 12 per cent (Table 5.6). For future analyses the age of properties were amalgamated into five groups, following changes in building construction and building regulations Part L: pre 1900–1929; 1930–1975; 1976–2006; post 2007; and don't know.

Table 5.6: Age of property

Age of Property	No of Respondents	Percentage of Respondents
1901 – 1929	86	12%
1930 – 1949	152	21%
1950 – 1966	194	27%
1967 – 1975	89	12%
1976 – 1982	36	5%
1983 – 1990	33	3%
1991 – 1995	12	2%
1996 – 2002	36	5%
2003 – 2006	9	1%
Post 2007	5	1%
Don't know	16	2%

After determining the age of properties, it was important to establish the type of property construction with particular focus on external walls. The categories chosen for this research were: stone; solid brick; cavity; timber frame; don't know; and other (Table 5.7). Corresponding with the results in Table 5.6, a large proportion (47 per cent) of respondents live in housing constructed with solid walls. The second highest category is houses constructed with cavity walls (43 per cent). For further analyses, stone and solid brick types of construction formed one category, and other types of construction and those that respondents were not sure of (don't know) also created one category. The categories for further analyses therefore are: solid wall; cavity; timber frame; and other.

Table 5.7: Type of external walls

Type of External Walls	No of Respondents	Percentage of Respondents
Stone	12	2%
Solid brick	335	47%
Cavity	310	43%
Timber frame	16	2%
Don't know	35	5%
Other	7	1%

5.3 Determining whether Financially Motivated Actions Happen Independently of the Wider Environmental Concerns

Various researchers (e.g. Stern, 2000, DEFRA, 2002, Bedford et al., 2004) argue that financially motivated actions are carried out independently of wider environmental concerns, and this research is based on that premise (see Chapter One, section 1.5). However, to ensure that this holds true for the research population, statements used by Defra were reproduced derived from their extensive research into identifying the public's attitudes and behaviours toward the environment undertaken in 2007 (DEFRA, 2007) and 2008 (DEFRA, 2008). The opinions of respondents toward set statements about environmental situations (Question A1) were compared against their interest in conserving energy (Question A2) using Kendall's rank correlation coefficient. The results show that there are small correlations between the environmental statements and respondents' interest in improving energy efficiency in their homes (for statistical output see Appendix D, page 199). However, this relationship is not statistically significant and cannot be used to explain the data. Furthermore, Figures 5.1 to 5.3 in section 5.4 show finances as the greatest barrier, most important circumstance and most influential motivator for energy conservation. The assumption was therefore to some degree confirmed.

5.4 Analyses of Theoretical Individual and Contextual Barriers, Circumstances and Motivators

In Chapter Two the most commonly quoted barriers to and motivators for energy conservation were identified from literature review and used as intervening variables for this research (see Table 4.2). Before subjecting the data to more complex statistical analyses using intervening variables identified in section 5.2, descriptive statistics were used. The results are presented in Figures 5.1 to 5.3.

Figure 5.1 shows the results to Question A3, where respondents were asked to identify which of the recognised barriers they found prevent them from energy conservation activities. The most significant barriers to energy conservation were the perception of it being 'too expensive' (52 per cent) and the 'lack of knowledge of the best solutions' (19 per cent).

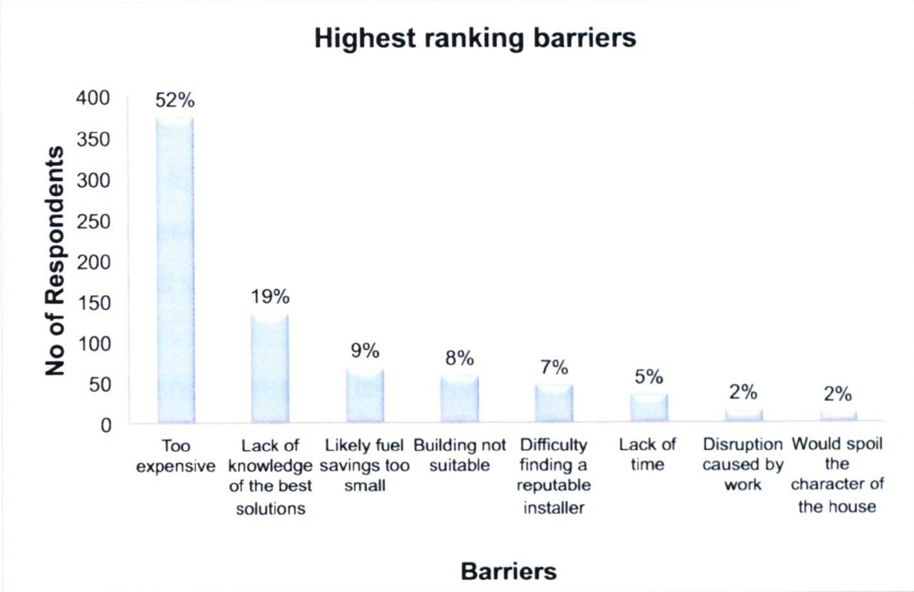


Figure 5.1: Highest ranking theoretical individual and contextual barriers to energy conservation

The results confirm what has been found in previous research: homeowners found energy conservation activities too expensive.

Next, the barriers were subjected to analysis using Kendall's rank correlation coefficient against respondents' gender and age (for statistical output see Appendix D, page 204). The analysis revealed that none of the data sets represent any significant relationships, which contradicts the view (see for example Kollmuss and Agyeman, 2002, do Paço and Varejão, 2010, Hargreaves et al., 2010, Sparks et al., 2010) that barriers to energy conservation significantly differ for various gender and age groups. However insignificant the relationship between barriers and gender and age groups were, it was of further interest to identify whether any differences in perceptions of barriers existed (for statistical output see Appendix D, pages 204-207). MANOVA tests were therefore carried out, which revealed that the only significant difference between males and females, using a Bonferroni adjusted alpha level to 0.006, were that male respondents thought of 'lack of knowledge of the best solutions' as a greater barrier than females. Females, however, saw 'likely fuel savings' as a marginally bigger barrier to undertaking energy efficiency improvements than males.

The examination of differences between age groups identified 'lack of time' as the only barrier with significant differences between groups. While there are slight significant differences between groups, the most important finding is perhaps that the younger the respondents are, the more of an issue time is for them. This suggests that the older generation has more time to invest in energy conservation: however, it is important to repeat here that no statistically significant relationship exists between the variables and that the amount of data that could be explained by the results is very small.

Figure 5.2 shows results to questionnaire Question A4 about circumstances under which respondents would consider engaging in energy conservation activities. The Figure shows that 30 per cent of respondents would react to a 'special offer', 28 per cent of respondents consider 'rising energy costs' as motivating circumstances, 21 per cent and 11 per cent would act only if they were 'replacing an existing heating system' or 'replacing appliances'.

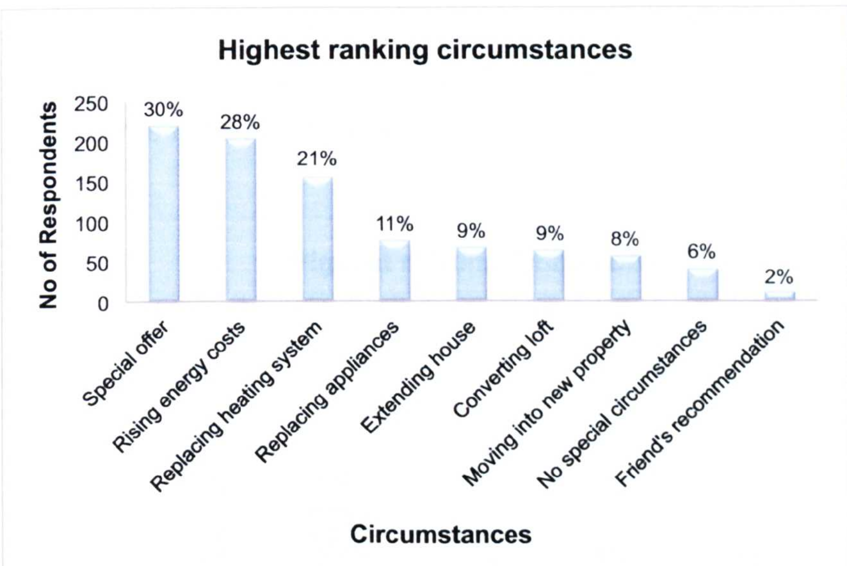


Figure 5.2: Highest ranking theoretical individual and contextual circumstances under which energy conservation activity is undertaken

The results reiterate that cost, either 'special offer' or 'rising energy costs', is the single most important factor when decisions are made by respondents on whether or not to participate in energy conservation activities. Additionally, the results also show that respondents are more likely to invest in energy conservation only when their heating systems or existing appliances require replacement. Any building works including 'moving into new property' were ranked as the highest motivating circumstances by a relatively low percentage of respondents.

The circumstances were then subjected to Kendall's rank correlation coefficient test, revealing no statistically significant relationships between the variables (for statistical output see Appendix D, page 210). Again, in order to gain more understanding for a better design of future programmes, it was imperative to examine the data further using MANOVA (for statistical output see Appendix D, pages 211-214). No statistically significant differences between males and females on the combined dependent variables and between age groups and the variables were found.

Figure 5.3 shows the results to Question A5, where respondents identified which motivators they found encourage them to undertake energy conservation activities. A large proportion (70 per cent) of respondents would conserve energy in order 'to save money on fuel bills'. 27 per cent of respondents are motivated by the need 'to reduce the amount of harmful emissions' and 11 per cent are motivated by the wish 'to preserve finite fuel resources'.

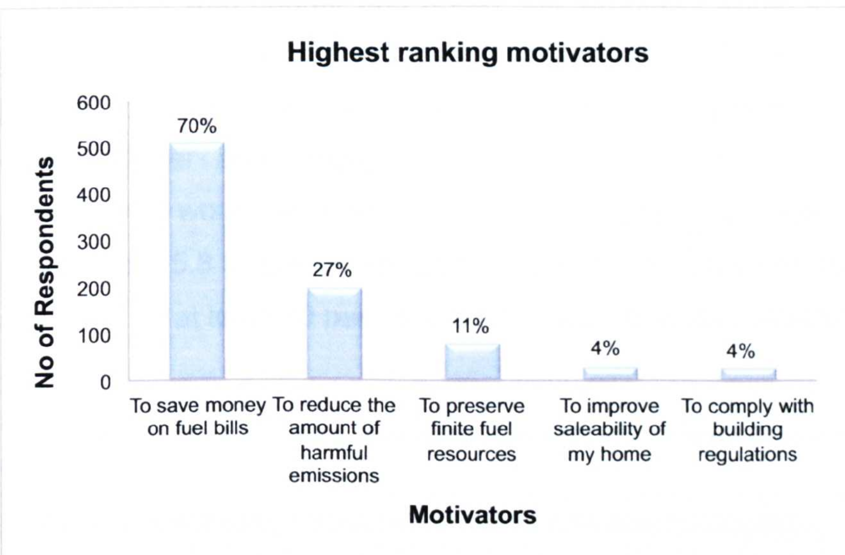


Figure 5.3: Highest ranking theoretical individual and contextual motivators for energy conservation

The results show that saving money on fuel bills is the single biggest motivator for action supporting the findings from literature review. Environmental motivations, such as reducing the amount of harmful emissions and preserving finite fuel resources, are also strong but for a much smaller percentage of respondents. Improving saleability of respondents' homes and complying with building regulations are much weaker motivators, which support the findings from analysis of circumstances (Figure 5.2).

Once again, Kendall's test revealed no significant relationship between variables, supporting the notion that not only barriers but also motivators are similar for any gender and age group (see for example Diduck and Sinclair, 2002, Darnton, 2004, Tonglet et al., 2004, Kalantari et al., 2007, Loughnan et al., 2010, Scannell and Gifford, 2010). Further investigation revealed slight differences between males and females and their perception of 'to improve saleability of my home', where females perceived it as a marginally bigger motivator than males (for statistical output see Appendix D, pages 217-224).

5.4.1 Conclusions

When considering the theoretical individual and contextual barriers to and motivators for energy conservation in isolation (e.g. without carrying tests to identify relationships with gender and ages), the strongest single influence is cost: 52 per cent of respondents believed energy conservation activities to be 'too expensive'; 30 per cent of respondents would participate in a programme if they provided a 'special offer'; 28 per cent would react to 'rising energy costs'; and 70 per cent of respondents would be motivated to conserve energy in order 'to save money on fuel bills'. Table 5.8 presents the summary of the highest ranking and most significant (selected by at least 10 per cent of participants) factors affecting participation.

Table 5.8: The highest ranking theoretical individual and contextual barriers, circumstances and motivators

Factors Identified by Literature Review as Affecting Participation		Percentage of Respondents
Barriers	Too expensive	52%
	Lack of knowledge of the best solutions	19%
Circumstances	Special offer	30%
	Rising energy costs	28%
	Replacing heating system	21%
	Replacing appliances	11%
Motivators	To save money on fuel bills	70%
	To reduce the amount of harmful emissions	27%
	To preserve finite fuel resources	11%

The analysis identifying differences according to gender and ages of respondents revealed only small correlations, indicating that neither barriers nor motivators are driven by gender and age. The results support some researchers' findings (see for example Diduck and Sinclair, 2002, Darnton, 2004, Tonglet et al., 2004, Kalantari et al., 2007, Loughnan et al., 2010, Scannell and Gifford, 2010), that attitudes toward energy conservation are independent of gender and ages. The results thus strengthen the argument made by this research that energy programmes' aspects must be better understood in order to increase participation in the future.

5.5 Examining Participants' Opinions and Experiences with Existing Energy Programmes

Section 5.5 provides information on the statistical analyses of results collected from household questionnaire Section B, which focused on identifying the overall knowledge of, participation in and opinion on all three groups of programmes: insulation and appliances; advice and education; and renewable energy technology. It then reports the percentage of people progressing from knowledge of a programme to actual participation (Figures 5.4 to 5.6). Next, relationships are analysed between participation and gender, age and economic status and participation and property's age, typology and external walls. Finally, it provides information on the analyses of the open-ended questions determining respondents' opinions and experiences with programmes, and in particular aspects, in which they have participated. Any relationships and associations between programmes' aspects and respondents' gender and age are also identified.

5.5.1 Participants' Opinions and Experiences with Insulation and Appliances Energy Programmes

Figure 5.4 provides information on the insulation and appliances category of programmes: Warm Front (WF); Warmer Homes Greener Herts (WHGH); Cocoon; E.on Insulation Scheme (E.on); British Gas Insulation Scheme (BG); Big Green Boiler Scheme (BGBS); Energy Labelling of White Goods (Labels); Councils' Low Energy Light Bulb Giveaway (Council LELBG); and Energy or Fuel Suppliers' Low Energy Light Bulb Giveaway (LELBG). It shows the number of respondents that had knowledge about a programme (Question B3), followed by the number of respondents that participated in that programme (Question B4), together with the percentage of respondents progressing from knowledge to participation.

The three most successful programmes, in terms of knowledge and participation, were Energy or Fuel Suppliers' Low Energy Light Bulb Giveaway, Energy Labelling of White Goods and the Councils' Low Energy Light Bulb Giveaway. However, the three most successful programmes in terms of progression rates from knowledge to participation were: Energy or Fuel Suppliers' Low Energy Light Bulb Giveaway; Councils' Low Energy Light Bulb Giveaway; and Warmer Homes Greener Herts.

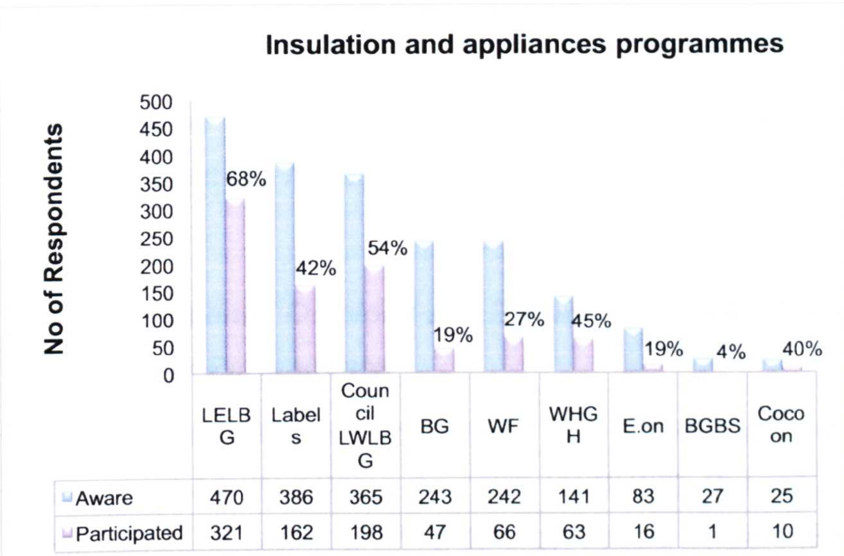


Figure 5.4: Percentage of respondents progressing from knowledge to participation in insulation and appliances programmes

The participation rates in energy programmes were first analysed using Kendall's rank correlation coefficient against respondents' gender, age and economic status (for statistical output see Appendix D, pages 225-227). The results of that analysis revealed no significant relationships between any variables. However small the correlation between respondents' gender and age, it was of further interest to investigate whether one group of independent variables has more influence over participation in particular programmes and, if so, to further determine whether there is any significant association between categories. The data were therefore analysed by the Chi-square test of independence (for statistical output see Appendix D, pages

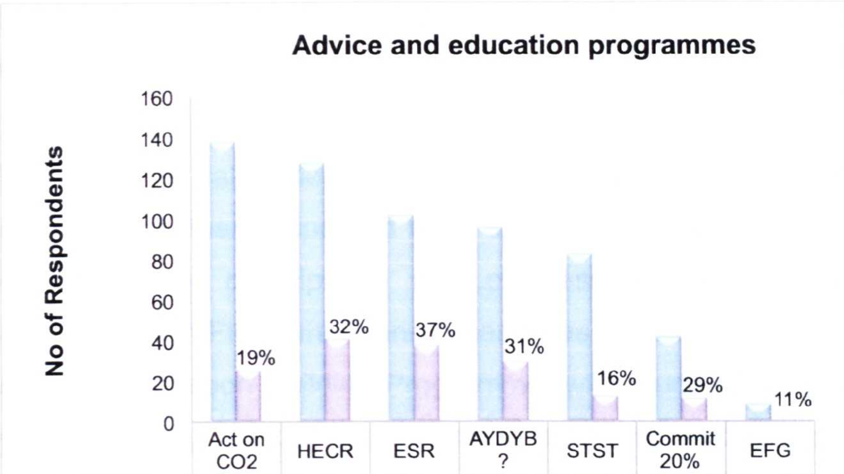
227-241). The results again revealed that only a very small association was found between some of the variables. The level of association is therefore statistically insignificant: some interesting conclusions could however be drawn: the results show that the older generations (between 57 and 69 and the over 70) in the sample tended to proceed from knowledge to participation more readily than the younger respondents. No statistically significant association between gender and participation and economic status and participation were noted.

Next, the analysis process was repeated for the same group of energy programmes, but this time using property's age, typology and type of external wall as the set of independent variables. First, Kendall's rank correlation coefficient was used to determine the strength of relationships, if any, followed by the Chi-square test of independence to determine differences, if any, between categories. Again, the tests did not reveal any statistically significant relationships between variables (for statistical output see Appendix D, pages 225-227 and 258-272).

5.5.2 Participants' Opinions and Experiences with Advice and Education Energy Programmes

Figure 5.5 provides information on the advice and education category of programmes: Are You Doing Your Bit? (AYDYB?); Commit 20%; Act on CO_2; Save Today Save Tomorrow (STST); Energy Savers Report (ESR); Energy for Good (EFG); and Home Energy Conservation Report (HECR). It again shows the number of respondents who had knowledge about a programme, followed by the number of respondents who had participated in that programme and the percentage of respondents who progressed from knowledge to participation.

The three most successful programmes in terms of knowledge were Act on CO_2, the Home Energy Conservation Report programme and Energy Savers Report programme. In terms of participation, the three most successful programmes were: Home Energy Conservation Report; Energy Savers Report; and Are You Doing Your Bit? The three most successful programmes in terms of progression rates from knowledge to participation were: Energy Savers Report; the Home Energy Conservation Report; and Are You Doing Your Bit?



	Act on CO2	HECR	ESR	AYDYB ?	STST	Commit 20%	EFG
Aware	138	128	102	96	83	42	9
Participated	26	41	38	30	13	12	1

Figure 5.5: Percentage of respondents progressing from knowledge to participation in advice and education programmes

Again, the energy programmes in this category were first correlated against gender, age and economic status of participants. As in the case of insulation and appliances programmes, the correlations indicated no statistically significant relationships. The data were subjected to the Chi-square of independence test despite the small correlations (for statistical output see Appendix D, pages 226-227 and pages 241-253). The tests again revealed no significant associations, but one again indicated that it is the older groups of respondents that tend to participate in programmes more readily than the younger respondents.

Similarly, Kendall's rank correlation for energy programmes and property details revealed no significant relationships. The Chi-square test of independence could not be carried out for any of the programmes because none of them reached a response count greater than five (for statistical output see Appendix D, pages 226-227 and pages 272-283).

5.5.3 Participants' Opinions and Experiences with Renewable Energy Technology Programmes

Figure 5.6 provides information on the renewable energy technology category of programmes: Major Photovoltaic Demonstration Programme (PV); Clear Skies; and

Low Carbon Building Programme (LCBP). The data presented in the graph follow the same principles as in Figures 5.4 and 5.5.

Unlike in the categories of insulation and appliances and advice and education programmes, there appeared to be a much more equal spread of numbers in terms of knowledge, participation and progression rates, where Major Photovoltaic Demonstration Programme and Clear Skies reached the same levels. The exception is the Low Carbon Building Programme, with much larger numbers of respondents with knowledge about the programme, but lower participation and thus progression rates.

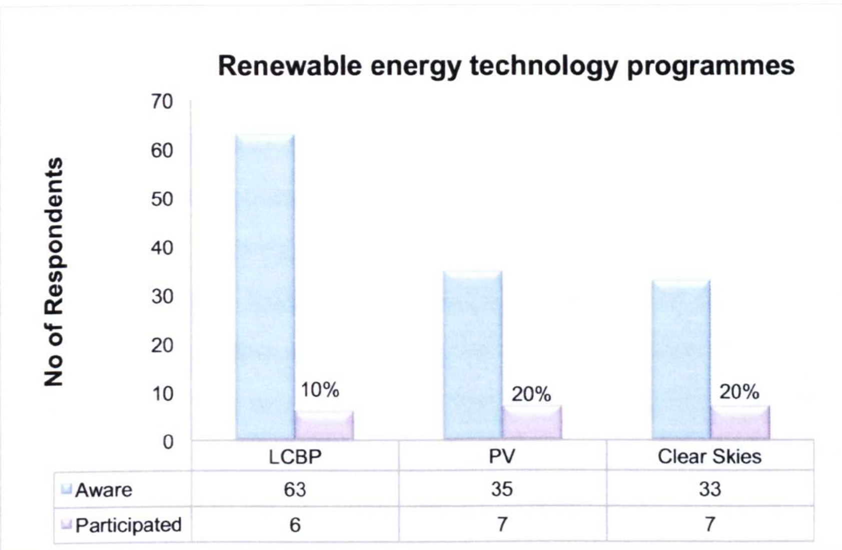


Figure 5.6: Percentage of respondents progressing from knowledge to participation in renewable energy technology programmes

Kendall's rank correlation coefficient analysis for both socio-demographics and property details showed no significant relationships between variables. The Chi-square test of independence could not be carried out in this instance because none of the programmes achieved a response count greater than five (for statistical output see Appendix D, page 227 and pages 253-258 and 283-288).

5.5.4 Participants' Opinions and Experiences with Energy Programmes' Features

As mentioned in section 5.4.1, a greater understanding of programmes' features is needed in order to identify what makes programmes successful in terms of participation. This section discusses programmes from actual participants' viewpoints and focuses on identifying the features that were most liked (Question B3, Figure 5.7), least liked (Question B4, Figure 5.8) and in the opinion of participants in need of improvement (Question B5, Figure 5.9). Lastly, the question was posed whether or not existing participants in energy programmes would be willing to participate in future programmes and, if so, in which type (Questions B6 and B6a, Figures 5.10 and 5.11).

Existing participants listed approximately nine features that they liked about one or more programme(s) in which they have participated: free light bulbs; good value for money or free; educational; easy to take part in; good service; feel-good factor; reduction in money spent on fuel bills; immediately noticeable results; no disruptions. Only features that were quoted by at least 10 per cent of participants were included in the analysis. Figure 5.7 shows that: 29 per cent of participants liked receiving free low energy light bulbs; 22 per cent felt they were receiving good value for money or completely free services; 17 per cent had received information and have learnt something new about energy conservation; 14 per cent stated that taking part in the programme was easy and straight forward; and 12 per cent liked the service they had received and/or were happy with the standard of workmanship.

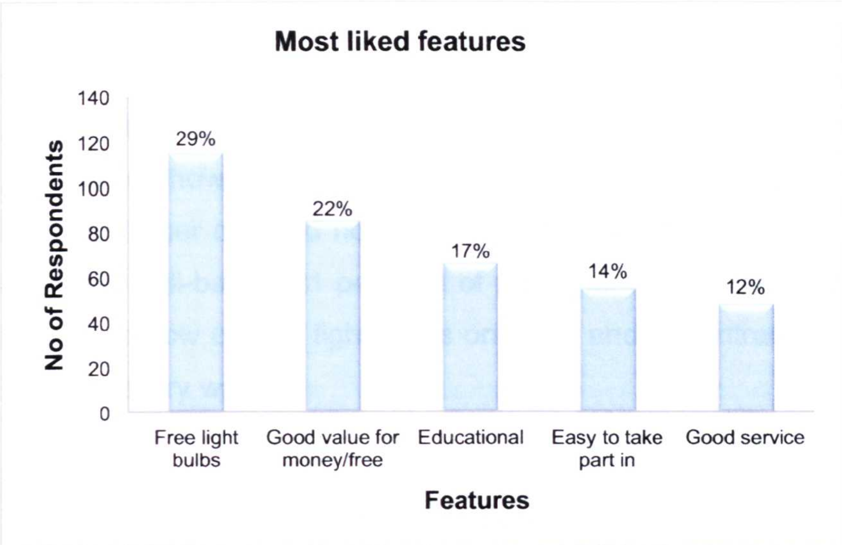


Figure 5.7: Programmes' features that existing participants liked the most

The results reconfirmed that saving money and receiving free services is the most important motivator and therefore the most liked feature of a programme. The relationship between most liked programmes' features and participants' gender and age was investigated using Kendall's rank correlation of coefficient, revealing no statistically significant relationships (for statistical output see Appendix D, page 288). Although the test showed no significant relationships, the Chi-square test of independence was carried out and, while most of the variables showed no association between them, female respondents (62 per cent) liked the existence of the education aspect in programmes more than males (38 per cent) (for statistical output see Appendix D, pages 289-294).

In the case of least liked programmes' features, participants listed 15 features that they disliked: nothing; missed opportunity; wasted time; not enough choice; complicated information; wrong contact information; already having too many low energy light bulbs; not offering beyond-the-typical services; mess caused by workers and associated disruptions; having to pay; eligibility criteria being too tight; no incentives; limited grants not including solid wall insulation, double glazing or boiler replacement; not enough information; and having to clear the loft prior to loft insulation. Only four features were quoted by no less than 10 per cent of participants and were included in further analyses.

Figure 5.8 shows: 26 per cent of participants had positive experiences with participation and could find nothing they disliked; 22 per cent felt that when the participation in one programme is completed, information should have been provided on how/what else they could do to further improve energy efficiency of their homes; 22 per cent did not like the time they wasted on missed appointments and promised call-backs; 21 per cent of participants felt that there is not enough choice in types of low energy light bulbs on offer, and in contractors and firms to carry out the necessary works.

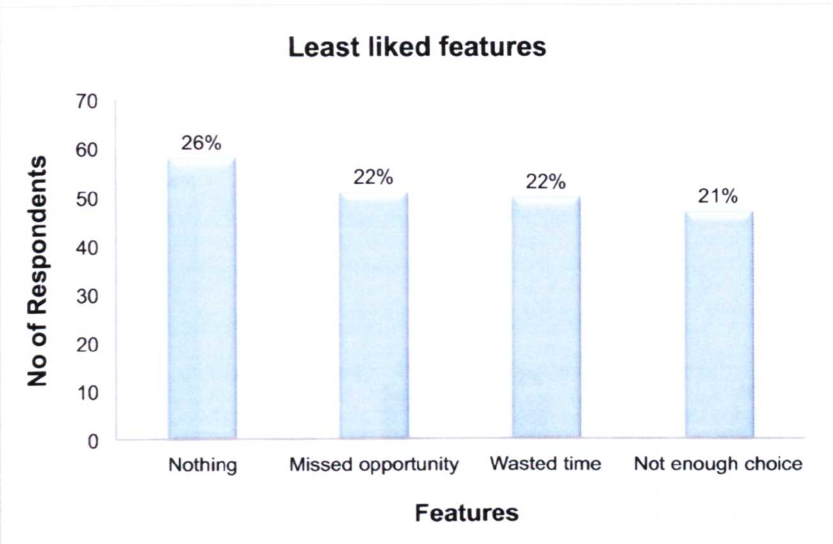


Figure 5.8: Programmes' features that existing participants liked the least

The relationship between least liked programmes' features and participants' gender and age was investigated using first, Kendall's rank correlation of coefficient, followed by the Chi-square test of independence. The tests revealed no statistically significant relationships and associations between variables (for statistical output see Appendix D, page 288 and pages 294-298).

Next, participants were asked which feature(s), if any, in their opinion would benefit from improvement. Ten features were listed: publicity; advice; incentives; choice; eligibility criteria; information on progress; help with clearing out lofts; making good and tidying up after works; extending the range of measures including solid wall insulation, better deals for landlords and blocks of flats, double glazing and boilers; and providing better information on cost, timing and contacts.

Six features were quoted by at least 10 per cent of participants and are presented in Figure 5.9: 44 per cent felt that publicity needs to be better, stripped of jargon, using simple and clear language and that there needs to be more of it; 23 per cent felt that there should be a one-stop-shop offering comprehensive advice on all aspects of energy conservation; 14 per cent would like greater and better discounts and incentives; 12 per cent would increase the choice of products and services on offer; 10 per cent would even and broaden eligibility criteria; and 10 per cent would like to be better informed of progress.

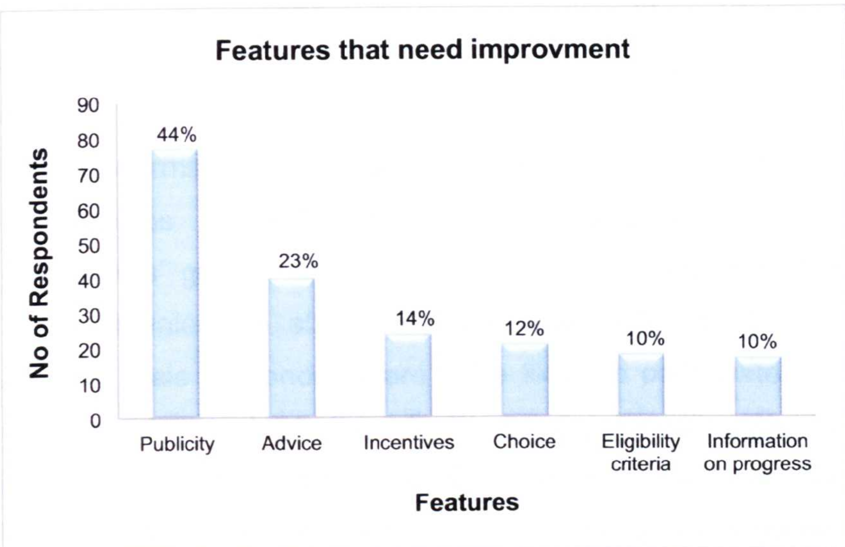


Figure 5.9: Programmes' features that existing participants felt would benefit from an improvement

Further statistical tests revealed no significant relationships between any of the variables (for statistical output see Appendix D, page 288 and pages 299-305).

When asked whether existing participants would be interested in participating in future programmes, 65 per cent said yes, and 38 per cent said no (Figure 5.10).

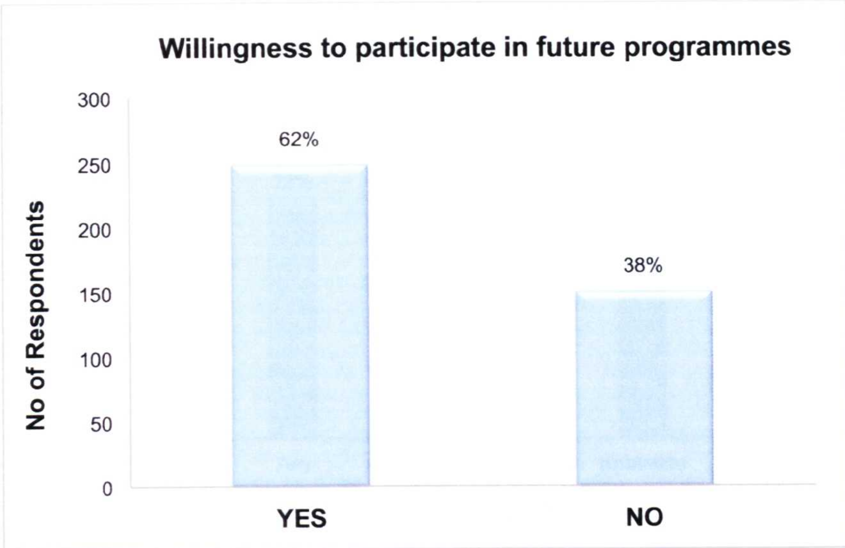


Figure 5.10: Would existing participants be willing to participate in future programmes?

First, Spearman's rho correlations were calculated to determine whether there were relationships between willingness to participate in future programmes and participants' gender and age (for statistical output see Appendix D, page 305). Tests revealed no statistically significant relationships. However, to determine whether male respondents are more likely to participate in a future programme(s) than females and whether decisions change with age, the Chi-square tests of independence were carried out (for statistical output see Appendix D, pages 305-307). The tests' results, using Pearson's Chi-square, show no significant relationship between willingness and gender, but yet again they indicate differences between age groups. This time it is the older generations that are fractionally less willing to participate in future programmes.

When further asked which programmes would interest them, 14 responses were listed: renewable energy; any that would be relevant; boiler replacement; don't know enough about existing programmes to make that decision now; loft, cavity wall or solid wall insulation; double glazing; Warm Front; Energy Labelling of White Goods; home energy conservation check; energy audit; advice and education programmes; low energy light bulbs; smart metering; and draught proofing. Six programmes were suggested by no less then 10 per cent of participants and are included in Figure 5.11.

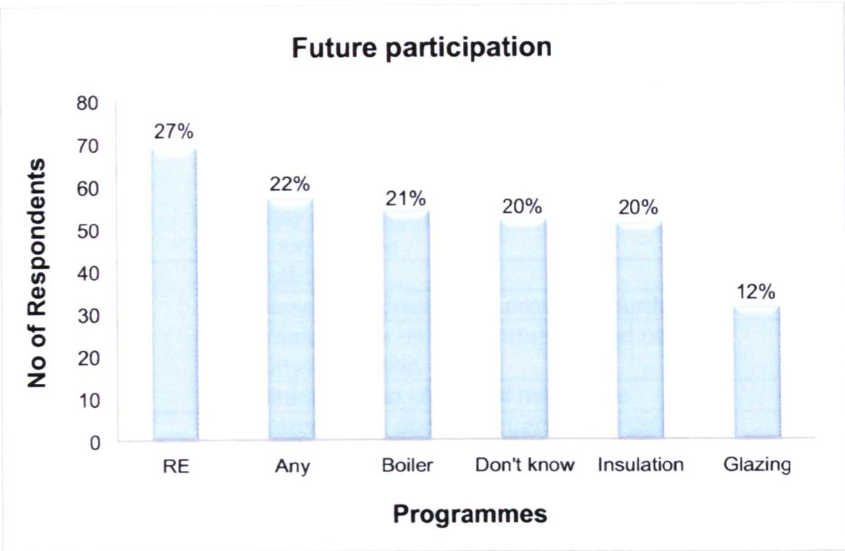


Figure 5.11: Type of programmes existing participants would be willing to participate in in the future

No significant relationships were revealed by the correlation tests, but some small differences were shown by the Chi-square test (for statistical output see Appendix D, page 307 and pages 307-314). It revealed that males (67 per cent) were more interested in the boiler programme than female respondents (33 per cent) and the age group between 57 and 69 showed more interest in that programme than the remaining age groups. The age group of over 70 was the most unsure about programmes in which they might wish to participate in the future.

5.5.5 Conclusions

From the data analyses presented in Figures 5.4 to 5.11, it is apparent that programmes in the insulation and appliances category are the most successful in terms of knowledge, participation and progression rates. The programmes will be subjected to further analysis in Chapters Six and Seven where the programmes' aspects will be examined in order to provide possible answers for the programmes' success or the lack of it. Table 5.9 shows the summary of results of the current programmes' features' analyses.

Table 5.9: The highest ranking features of current energy programmes

Current Energy Programmes' Features		Percentage of Respondents
Most liked features	Free measures	29%
	Good value for money	21%
	Provision of educational aspect	17%
	Easy participation	14%
	Good service	12%
Lest liked features	Nothing	26%
	Missed opportunity on providing further advice	22%
	Wasted time on appointments and other communication	22%
	Minimal or no choice of measures	21%
Features needing an improvement	Fragmented and infrequent advertising	44%
	Inappropriate and incorrect advice	23%
	Lack of incentives	14%
	Minimal or no choice of measures	12%
	Compliance with eligibility criteria	10%
	Lack of information on progress	10%

Promisingly, 62 per cent of existing participants would like to participate in programmes in the future, while 38 per cent would not. The existing participants would like to participate predominantly in renewable energy technology programmes, thus supporting previously established findings that interest in renewable energy is on the rise (do Paço and Varejão, 2010). The results suggest that the older respondents were more knowledgeable and progressed from knowledge to participation more frequently than the younger generation. Equally, however, it was the older generation that was more reluctant to commit to participation in the future and was therefore more unsure about which type of programme, if any, they would participate in. The results indicate that while male respondents prefer the more technically focused programmes, such as the boiler replacement programme, female respondents preferred the softer approaches, for example they liked the educational element of a programme, again supporting previously established findings (Kollmuss and Agyeman, 2002, do Paço and Varejão, 2010, Hargreaves et al., 2010, Sparks et al., 2010). It must be reiterated here, however, that any associations found were very small and not significantly important. The results must therefore be used with a great caution.

Lastly, the encouraging results found that once respondents made their decision to participate in a programme, they were relatively happy and would have changed the programme only marginally or not at all. The greatest challenge how to turn interest into participation and thus increase possible participant numbers, however, remains.

5.6 Homeowners' Design of New Energy Programmes

Section C of the questionnaire was designed to collect information that addressed further some of the identified barriers and motivators from Chapter Two. It sought to collect more information on barriers and motivators using open-ended questions (Figures 5.12 to 5.14), to identify in which, if any, programmes the entire sample of respondents, not just those previously taking part, would like to participate in the future (Figure 5.15), to find out which body should administer future programmes (Figure 5.16) and what size of programmes would be most satisfactory (Figure 5.17), before turning attention to identifying how the programmes should be promoted (Figure 5.18). Lastly, results were analysed against respondents' gender and age.

The first question (Question C1) sought to uncover barriers that respondents perceived as important to them. This was achieved by using an open-ended question rather than ranking barriers identified by literature review (Question A3). As in section 5.5 answers were analysed further only if they were quoted by at least 10 per cent of respondents. Twelve barriers were identified: too expensive; hassle factor; inconvenience; unclear information; unreliability; not knowing where to start; long payback; lack of time; available solutions for traditional houses only; unclear benefits; being preached at; eligibility criteria too tight.

Five of these barriers are included in Figure 5.12: 46 per cent of respondents would not contemplate participating in future programmes if they were too expensive, had no incentives or offered an inadequate grant; 28 per cent would not like to participate in a programme that carries too much hassle, such as too much paperwork, too many criteria to fulfil, or overcomplicated application process; 14 per cent would reject participation in a programme if the information was complicated, biased and difficult to differentiate between from other programmes; 11 per cent would not participate in a programme that would bring too much inconvenience such as disruptions, alterations to the house, and a large amount of preparation work; and

10 per cent of respondents feared that unreliability of installers, technologies, suppliers and programmes themselves would impede them from further participation.

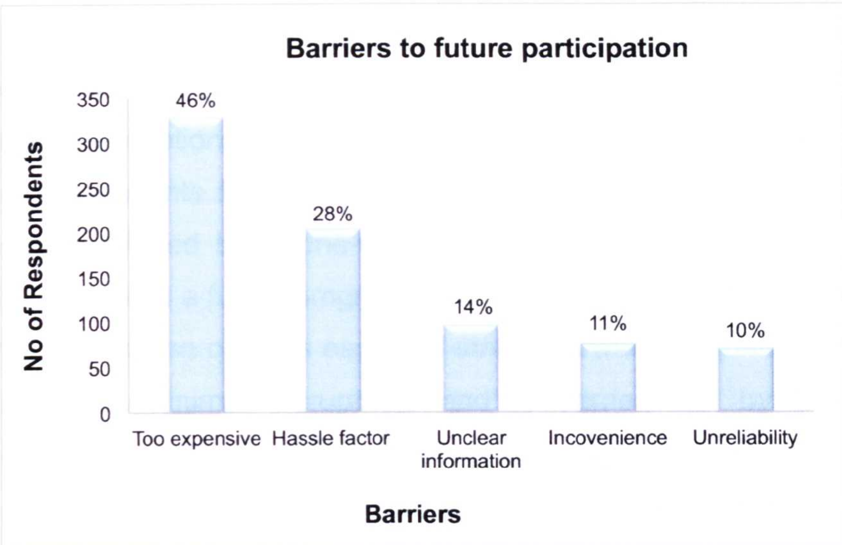


Figure 5.12: Features that would represent the greatest barriers for participation in future programmes

Notwithstanding that previous examination between barriers and respondents' gender and age revealed no significant relationships, the data were again subjected to Kendall's rank correlation coefficient (for statistical output see Appendix D, page 314). Again, and therefore confirming previous results, the test showed no significant relationships between them. However, the results of the Chi-square test revealed that the oldest generation (over 70) considered the expense of participation in a programme as a greater barrier than did the remaining age groups (for statistical output see Appendix D, pages 314-320).

The same open-ended method (Question C2), rather than ranking (Question A5), was used to enlist deeper motivating features. The respondents considered 16 features as motivating: finances; advice; advertising; no hassle; fuel savings; knowing where to start; long term guarantee; better education; broader eligibility criteria; greater choice; improved living standards; aftercare service; world-wide participation; feel-good factor; avoiding 'greenwash'; sympathetic to the house.

Five features are presented in Figure 5.13 and represent the main motivators to future participation: 57 per cent of respondents stated that they would consider future participation if programmes offered greater discounts, incentives, grants or a tax rebate, if they provided better value for money and were more cost effective and could be paid for from savings resulting from energy efficiency measures; 23 per cent believed that advertising has to be local, easy and understandable, offering clear descriptions of process, benefits, outcomes and payment options; 20 per cent of respondents felt that better, impartial, tailor-made, comprehensive, whole-house advice offered by a one-stop-shop is needed; 17 per cent felt that they would participate in a future programme if all hassle factors were removed, such as making the application process easy and straightforward, ensuring that installation is carried out with minimal disruptions and is carried out by trustworthy and reliable contractors using tested technology and products, and without 'hidden strings and small print'; and 10 per cent of respondents would participate in a future programme if they were guaranteed to achieve a reduction in fuel consumption.

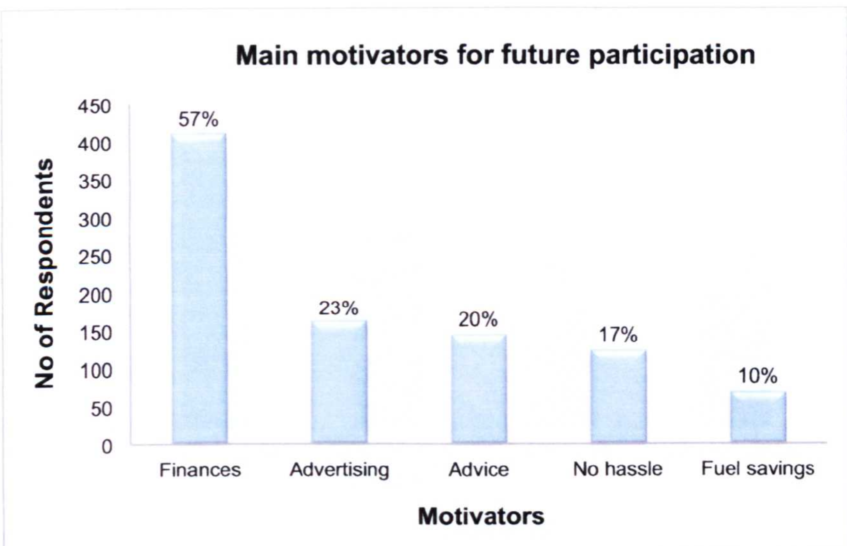


Figure 5.13: Features that would motivate respondents to participate in future programmes

Both subsequent tests revealed no statistically significant relationships and associations between variables (for statistical output see Appendix D, page 320 and pages 320-325).

Respondents were asked once more, at the end of the questionnaire (Question C7), what else would motivate them to participate in the future and they provided another list of 11 features: proven results; description of processes; tailor-made programmes/processes; short payback period; the use of 'show home'; better government policies; information provided on a fuel bill; programme enabling not preaching; programmes specific to landlords, flats and listed properties; prioritized list of actions; and legal requirements, green tax and sanctions for non-compliance.

Figure 5.14 represents the top four features that were listed by at least 10 per cent of respondents: 19 per cent of respondents would participate in programmes that could demonstrate proven results in either fuel or financial savings; 14 per cent would like to see better, clearer and more detailed descriptions of the process, benefits and outcomes of a programme; 12 per cent would prefer a tailor-made, specific and comprehensive programme; and 10 per cent would only participate in a programme with short payback.

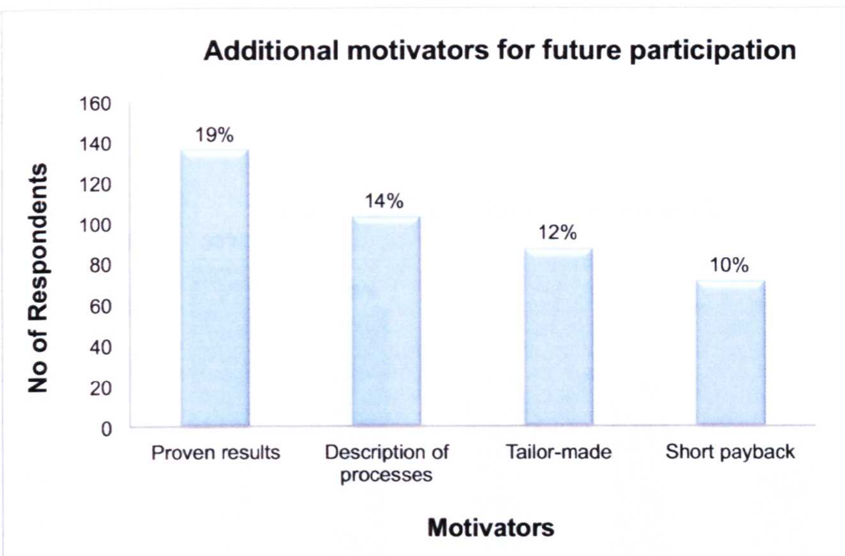


Figure 5.14: Additional motivators for participation in future programmes

The last of the Kendall's rank correlation coefficient tests to examine whether a relationship exists between motivators and respondents' gender and age revealed yet again no significant relationships between the variables (for statistical output see Appendix D, page 325). However, the Chi-square test highlighted that there were some small differences for gender and age group (for statistical output see Appendix

D, pages 326-330). Where 63 per cent female respondents considered 'tailor-made' programmes as motivating, only 37 per cent males thought so. On the contrary, however, it was 61 per cent of males who believed 'short payback' to be motivating, compared with 39 per cent of female respondents. Lastly, differences were revealed between age groups, where the over 70 believed the 'description of processes' to be more motivating than the rest of the groups. Again, it has to be pointed out that all the associations are only small and thus not statistically significant.

Next, attention was turned to defining which programmes respondents would prefer and which organization should take the lead and how they would have to be organised, in order to encourage participation. The following four figures (Figures 5.15 to 5.18) represent results from ranking questions with only the highest-ranking choices presented. It was important to establish what type of programme respondents would be interested in participating in the future (Question C3, Figure 5.15). Five choices were presented, and respondents ranked them in order of importance: advice and education; insulation; appliances; renewable energy technology and none. An option to list 'other' programmes was also given, but did not yield any additional results.

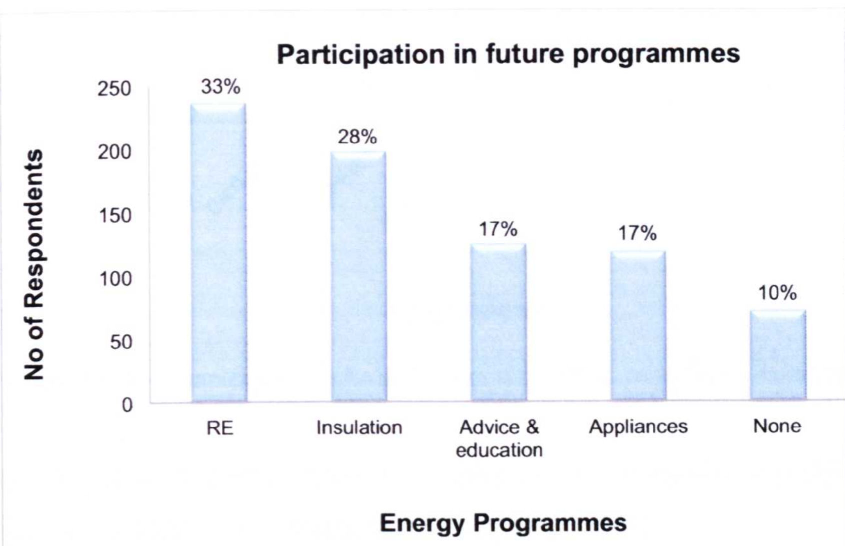


Figure 5.15: Type of programmes respondents would be willing to participate in the future

Kendall's rank correlation coefficient was also used to establish whether any relationships occur between choice of programmes in which respondents might be willing to take part in the future and their gender and age. It showed, once more, no significant relationships between them. Four dependent variables were subjected to a MANOVA test: advice and education; insulation; appliances; and renewable energy technology. Due to the high percentage of missing data, the 'none' option was removed from the equation. The independent variable was first gender, followed by age. There was no statistically significant difference between any of the groups (for statistical output see Appendix D, page 330 and pages 331-334).

When considering which organization (Question C4), if any, should administer future programmes the following choices were provided: central government; local council; voluntary organization; energy or fuel supplier; community group; none; and don't mind. Again, an option to provide other ideas was given, but again, no additional information was provided. The highest-ranking responses are presented in Figure 5.16.

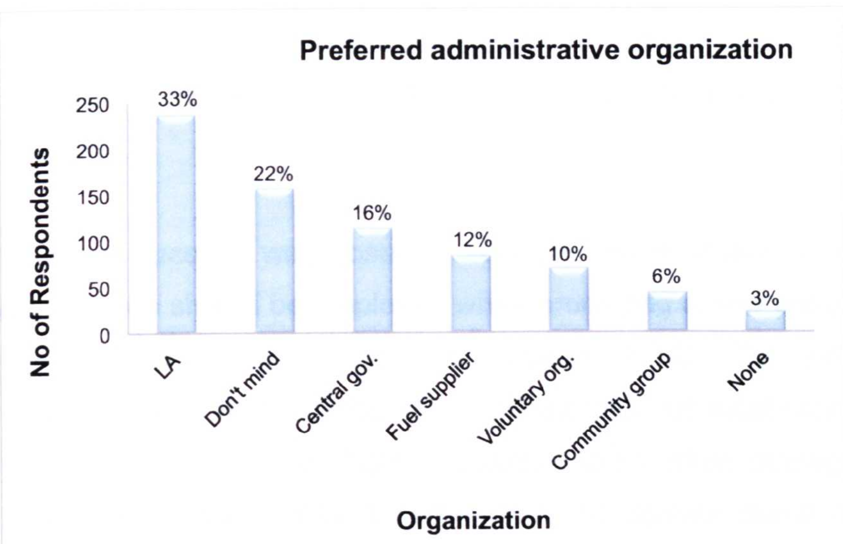


Figure 5.16: Organization respondents would prefer to administer future programmes

No significant relationships and associations between variables were identified (for statistical output see Appendix D, pages 334-340).

When the geographical sizes of programmes (Question C5, Figure 5.17) were considered six options were presented: UK-wide; regional; county-wide; district-wide; community based; don't mind; and other. No responses were listed under the 'other' option and it was therefore not included in the results.

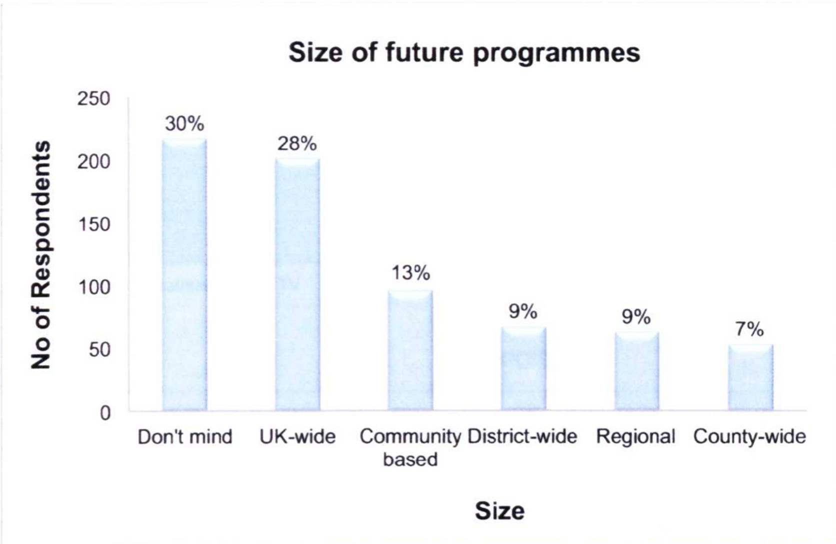


Figure 5.17: Size of future programmes respondents would prefer

No statistically significant relationship or differences were revealed by either Kendalls' rank correlation or MANOVA (for statistical output see Appendix D, pages 340-345).

Lastly, a question was posed to consider which, if any, marketing strategies and approaches should be employed when promoting a new programme (Question C6). Seven options were provided (Figure 5.18): TV advertisement; internet advertisement; radio advertisement; direct mail-out; local council campaign; word of mouth; and don't mind. Again, an option to list other strategies was provided, but remained largely unutilized, although it did contain some additional suggestions such as information on utility bills, information on products, information in local press, information from energy or fuel supplier, and specialized press. The additional responses were represented by less than two per cent of respondents and were therefore not included in further analysis.

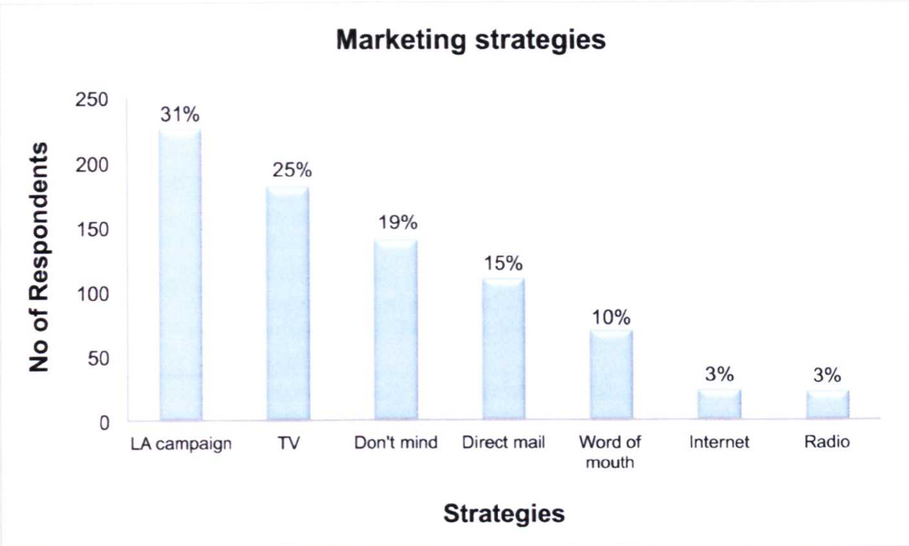


Figure 5.18: Marketing strategies for future programmes respondents would prefer

No statistically significant relationships were revealed by Kendall's rank correlation: however, a statistically significant difference was found between the age groups, where the youngest group (41 or under) preferred the internet and radio advertising to the rest. However, this difference was very small as only three per cent of the data can be explained by the results (for statistical output see Appendix D, pages 345-353). Furthermore, both options ranked the lowest of all listed marketing strategies.

5.6.1 Conclusions

When respondents were presented with the opportunity to list barriers and motivators that they themselves found most influential, they again listed finances as the most significant factor. Table 5.10 presents responses quoted by at least 10 per cent of respondents that should be considered in the design of new programmes. The results of this chapter, and this section in particular, will be considered in the following three chapters.

Table 5.10: Barriers and motivators identified by homeowners as potentially influencing participation

Factors Identified by Homeowners as Potentially Influencing Participation		Percentage of Respondents
Barriers	Too expensive	46%
	Hassle factor - inconvenience in a form of preparation work and the time it took to organize etc.	28%
	Unclear information, inappropriate and incorrect advice	14%
	Hassle factor - inconvenience in a form of preparation work and the time it took to organize etc.	11%
	Unreliability of technology, programme provider and installers	10%
Motivators	Finances (e.g. special offer, grant, free or cost-effective measures)	57%
	Persuasive form of advertising	23%
	Impartial, up-to-date and accurate advice	20%
	No hassle	17%
	Adequate fuel savings	10%
Additional motivators	Proven results	19%
	Description of processes	14%
	Tailor-made interventions	12%
	Short payback period	10%

In terms of the design of future programmes, while the respondents either did not mind, or would prefer a UK-wide programme, they were much more in favour of the local council to administer and promote such a programme, thereby reducing the programme in size and keeping it localized. The more complex statistical test revealed no significant relationships between variables.

5.7 Conclusions

While the results confirmed that some of the recognized barriers and motivators are still relevant and valid, they did not support the notion that attitudes toward energy conservation are governed by gender. They also did not find any connections with age, economic status and type of properties. When more complex analyses were applied, various differences between groups were found. The differences, however, although statistically significant, cannot be taken in isolation because, even though some significant associations and relationships were found, the percentage of data that could be explained by them is very small. Caution must therefore be exercised when interpreting the results.

The questionnaire results showed that the most successful, in terms of awareness and participation numbers, was the insulation and appliances group of programmes, because it offered a whole range of economic incentives. It also showed that the research participants would prefer to participate in a programme that is organized by the government, but administered and promoted by the local council. The results provided some invaluable evidence, in terms of barriers and motivators to participation, summarized in Table 5.11, which to a degree validated the factors identified by literature review, but also provided a variety of other factors identified by homeowners. The outcomes therefore provided rich new information that will be incorporated into the design of a new, evidence-based framework for the design of new programmes in Chapter Eight. The results of this chapter, which informed the design of the interview schedule detailed in Chapter Six, are discussed in Chapter Seven.

Table 5.11: Barriers and motivators identified by empirical research as influencing participation

	Factors Identified by Literature Review	**Factors Identified by Homeowners**
Barriers	Too expensive	Missed opportunity on providing further advice
	Lack of knowledge of the best solutions	Wasted time on appointments and other communication
		Minimal or no choice of measures
		Fragmented and infrequent advertising
		Inappropriate and incorrect advice
		Lack of incentives
		Minimal or no choice of measures
		Compliance with eligibility criteria
		Lack of information on progress
		Too expensive
		Hassle factor - inconvenience in a form of preparation work and the time it took to organize etc.
		Unreliability of technology, programme provider and installers
Motivators	To save money on fuel bills	Free measures
	To reduce the amount of harmful emissions	Good value for money
	To preserve finite fuel resources	Provision of educational aspect
	Special offer	Easy participation
	Rising energy costs	Good service
	Replacing heating system	Finances (e.g. special offer, grant, free or cost-effective measures)

	Factors Identified by Literature Review	Factors Identified by Homeowners
	Replacing appliances	Persuasive form of advertising
		Impartial, up-to-date and accurate advice
		No hassle
		Adequate fuel savings
		Proven results
		Description of processes
		Tailor-made interventions
		Short payback period

Chapter SIX

Empirical Evidence from Interviews

Perceptions of Home Energy Efficiency Programmes: Interview Analysis

6.1 Introduction

In Chapter Five data obtained from postal questionnaires were analysed using various statistical tests. The results provided information on barriers and motivators to participation in a wide range of home energy efficiency programmes, but they did not reveal any significant variances between different socio-demographic groups (e.g. male and female). Not only were the theoretical barriers and motivators validated to a large degree, but a whole host of new factors influencing participation were identified (see Chapter Five, Table 5.11). The questionnaire analysis provided details for the design of the interview schedules. There were two schedules: one designed for homeowners who progressed from knowledge of one or more programmes to participation; the other for homeowners who decided not to participate in the programme(s) about which they had enquired. Chapter Six, together with the questionnaire analysis results, provides empirical evidence needed to fulfil the third objective of the thesis:

- **To assess how well barriers and motivators are addressed in current programmes designed to encourage homeowners to reduce energy consumption in the home.**

Fifty interviews were conducted to gain more in-depth knowledge about the key aspects of each of the energy programmes identified by the research (for programmes' details see Chapter Three). The chapter commences with the identification of differences in opinions between programmes' participants and non-participants (section 6.2). In section 6.3 programmes' key aspects are discussed, and the chapter concludes with a discussion on the ideas proposed by interviewees on the design of future barrier-free and motivator-enhancing programmes (section 6.4).

6.2 Differences in Opinions between Programmes' Participants and Non-participants

Fifty interview participants were selected from volunteers, consisting of 16 participants in an energy programme and 34 non-participants (for details of interview participants' selection see Chapter Four, section 4.7). The aim of the interview was, among others, to identify why some homeowners decided not to participate in a programme whilst others did. The interviews revealed that there were three main differences, summarised in Table 6.1, between the two groups of interviewees: issues related to cost of participation; unsuitability of a programme or a property; and unmet expectations and other disappointments.

Table 6.1: Main differences between programmes' participants and non-participants

Differences	Programme Participants	Programme Non-participants
Cost of participation	Affordable	Too expensive
		Hidden cost
		Minimal financial difference between free and having to pay for participation
Programmes' suitability	Suitable for participants' properties	Unsuitable for non-participants' properties due to building type or construction
Unmet expectation and other disappointments	Limited choice of measures	Broken promises
	Investment of too much time for small reward	Missed appointments

Over a half of non-participants stated that they thought the programmes were too expensive even after a special offer or a grant was offered, while almost all of participants perceived the programmes they had participated in as affordable. The issue of a programme being too expensive was particularly important to those wishing to take part in the renewable energy technology programmes: one respondent remarked, "even after receiving the measly amount [for a photovoltaic array], which they have expected me to jump through so many hoops for, I would still be left with paying thousands of pounds" (Interview Participant No. 41).

In the case of insulation programmes, the non-participants were discouraged by hidden costs and additional charges: for example, one comment was "The cost is based on hypothetical houses. It will cost me more than they are advertised for [because my house is larger than the average]. I could do it cheaper with DIY, but I would rather pay someone if they were truthful about the cost" (Interview Participant No. 22); another commented "I was given a quote that was suddenly and un-proportionately increased because I had awkward access and shallower [roof] pitch" (Interview Participant No.17). Also in the case of insulation programmes, the non-participants, particularly those in receipt of various means-tested benefits and thus possibly eligible for the Warm Front programme, pointed out that a minimal financial difference meant that they had to pay for insulation: "I was told that if only I had £30 less I would qualify [for Warm Front], but as it is I would have to pay to have it [cavity wall insulation] done" (Interview Participant No. 21).

Many of the non-participating interviewees were disappointed that the programmes were so limited in terms of what type of measures they offered and what type of properties they encompassed: "I live in an old block of flats with electric storage heaters and there is absolutely no programme out there that I could benefit from" (Interview Participant No. 43); "I own an old 1929 detached property with solid walls and no one is able to tell me when solid walls will be included in those programmes" (Interview Participant No. 19). The participants who installed either loft or cavity wall insulation through the identified programmes were satisfied with the measures on offer.

Some of the non-participants had experienced some sort of disappointment or stated that they had expected something more from a programme: "I was promised a call back from the call centre and when it finally [three weeks later than promised] came I was spoken to so rudely that I put the phone down and never bothered to try again" (Interview Participant No. 29); "I wanted to sign up to Act on CO_2 campaign, but after going to the website to find out more about it, I thought to myself what is the point? It is just lip service. Anyone can say what they expect him to, but do nothing. I expected something tangible, so I didn't bother" (Interview Participant No. 30). The majority of participants who had pursued insulation programmes received exactly what they had expected, but a quarter stated that they have expected better service: 'they did a good job with the insulation, but I would have liked them to tidy up better after themselves" (Interview Participant No. 4). All of the participants taking part in low energy light bulb giveaways would have liked greater choices in the type of light bulbs. Half of the homeowners participating in renewable energy technology had regrets about "wasting time for such a small reward" (Interview Participant No. 3).

6.3 Understanding Homeowners' Experiences with Existing Home Energy Efficiency Programmes

Understanding of homeowners' perceptions of the available energy programmes is the most important facet of this thesis. It was therefore imperative to gain as much information as possible that is specific to the identified programmes and their key aspects. For this reason semi-structured interviews were conducted, which enabled the researcher to include findings from postal questionnaires, but also allowed the interviewees to enrich and broaden the subjects to include their experiences further. All interviewees were questioned about the first six aspects: awareness raising; measures; funding; eligibility criteria; application methods; and preparation work. The remaining two (work and aftercare) were described only by programmes' participants.

6.3.1. Interview Participants' Experiences with Current Awareness Raising

When evaluating awareness raising avenues it became apparent that, although the wish to save energy is predominantly financially motivated and is therefore not dependent on wider environmental issues (for empirical evidence see Chapter Five, section 5.2), the separate notions of energy conservation and climate change became intertwined and rather confusing for the interviewees. The interview discussions therefore tended to switch from specific types of avenues relevant to the programme in which homeowners expressed an interest (e.g. direct mail, leaflets) to much wider and broader ways of promoting the reduction of carbon dioxide (e.g. TV advertising of effects of climate change using images such as polar bears). Some interesting views were obtained for future utilization and effectiveness of awareness raising and these are therefore included in the analysis.

First, homeowners were asked about how their interest was first sparked. Two avenues appeared particularly successful: direct mail from the council inviting homeowners to apply for the free services of Warm Front; and chance encounters with either council officers or EEAC's representatives. In the case of renewable energy technology, only a small minority of homeowners reacted to an advertisement placed in newspapers or journals. A small fraction of homeowners decided that they would like to improve the energy efficiency of their homes and contacted EEAC without receiving any promotional material to prompt them. A small number of homeowners reacted to a leaflet and some could not remember: "it is absolutely ages ago, I can't remember" (Interview Participant No. 22).

Second, homeowners were asked what they thought of mass media advertising for energy conservation. It was here where the boundary between climate change and energy conservation became blurred. While an overwhelming majority of homeowners proceeded to talk about the lack of effectiveness of adverts related to climate change (e.g. "I can't relate to Alaska and the images, it's always polar bears. I feel sorry for them, I really do, but they mean nothing to me", Interview Participant No. 34), only a very small number could recall an advert, when prompted, that focused on energy conservation. To determine whether any mass media campaign could be effective, participants were asked to think of a governmental campaign that in their opinion was successful in terms of, first, being memorable and, second, causing a behaviour change. The most memorable campaigns were: stop smoking; drink and drive; and health campaigns such as those related to cancer. When pressed further about what made them think of these, the participants pointed out that with these campaigns it was clear to see what the given behaviour could cause and the consequences it could have, creating a certain fear factor. In terms of causing behaviour change, some interviewees felt that the threat of legal actions (e.g. as in the case of drink and drive campaign) was the most important factor in changing actual behaviour. Although some participants could see how this method could be replicated for energy conservation most perceived difficulties – due to energy being invisible, cause and effect unclear and mostly removed by time and space – and felt that the fear factor would be rather weak. The only aspect that participants felt could be effective was using economic incentives as a driver for change.

6.3.2. Interview Participants' Experiences with Current Measures

After establishing what measures homeowners had enquired about, they were asked whether their expectations were met. Almost all participants in programmes felt their expectations had been met. Only one stated that she did not want nor need any more low energy light bulbs, even though she was receiving them through the post from her energy supplier anyway. Half of non-participants were disappointed by the range of measures on offer and decided not to participate because the programme did not offer what they needed. The other half of non-participants was relatively happy with the measures but felt that participation in programmes was expensive even after receiving a grant.

A specific issue was raised when discussing advice and education programmes: homeowners saw very little sense in participating in these unless they were selling their property, when they would have to provide an energy performance certificate. The most common response was the expression of uncertainty as to what gain is to be had simply by subscribing to a website promising to save energy. Another issue with programmes from this category, specifically with the Energy Labelling of White Goods, was the complexity of, and at times hard-to-understand information presented on the labels: "You almost need a degree to decipher what the labels say and mean" (Interview Participant No. 33); and "the writing is so small one needs a magnifying glass to be able to read it" (Interview Participant No. 45).

6.3.3. Interview Participants' Experiences with Current Funding

When the issue of funding of energy efficiency measures was discussed most interviewees agreed that to make the decision to invest depends not only on the finances available to them, but also on their own priorities. Interviewee Participant No. 19 provided a pertinent answer, which reflected many of the aspects raised by others: "I know that the environmental situation is dire and I know we are fast running out of fuel and I also know that if I invest in energy efficiency now I will save money in the long run, but I have children who will soon go to university and I have to run a car to get to and from work and those things take precedence I am afraid".

Interviewees were asked how they intended to pay or would pay for the energy efficiency improvements: a minority received free measures; others received or would have received a grant if they had participated in a programme; others still had or would have had to pay the full price for any measures received because they did not meet the eligibility criteria or more often because no programme existed that would meet their needs; and some of the interviewees expected the measure to be free to them, but found out that they too did not meet the eligibility criteria.

Next, interviewees who were interested in programmes with a grant were asked whether or not they thought the grant level was generous enough to ensure their participation. Half saw the level of grant as sufficient to participate, while a small number also felt the grant was adequate, but did not trust the source of the grant and decided therefore not to participate. The rest of the interviewees felt that the grant was too low for them to proceed any further.

6.3.4. Interview Participants' Experiences with Current Eligibility Criteria

Relevant interviewees were asked about the existence of eligibility criteria and what effects they had on their participation. For five interviewees the eligibility criteria were receiving the correct means-tested benefits and, while three had no objections, two felt that the criteria were too tight: "it was so frustrating, I was 'too rich' for the scheme. It was only a small difference. Something like £20 and it was very annoying" (Interview Participant No. 48).

Interviewees participating in some of the renewable technology programmes or the Big Green Boiler Scheme had to select the relevant technology, find an installer and submit a quote before they received any indication of whether or not they would receive a grant. In one case, the technology had to be installed and the discount was claimed retrospectively. Half of them also had to bring the efficiency of their homes up to a higher standard and perceived it as too much hassle for a very small reward: "I just could not believe the amount of work they expected you to do for such a small grant" (Interview Participant No. 33).

6.3.5. Interview Participants' Experiences with Current Application Methods

The next step in participation for some of the studied programmes is application. The interviewees with experience of this step were asked what method they used or would have had to use in order to take part in the programme, and what they thought about it. The following methods were given: an online application form; postal form; and telephone either the Energy Efficiency Advice Centre or the programme provider.

The responses to the second question were mixed and varied, and included comments not only about the application method, but also general practices including time delays between submission of an application and a response by the programme administrator: "It took an absolute age for someone to get back to me. I had almost forgotten all about it by the time someone called" (Interview Participant No. 43). Other comments included complaints about the way the business was conducted: "I was spoken to like a child, they were so condescending. I did not like that one bit" (Interviewee Participant No. 46); "They have phoned, arranged an appointment and then cancelled. That happened three times. On the fourth they never bothered cancelling, just did not turn up" (Interview Participant No. 36). Additionally, some homeowners felt that the application form was too long and complicated.

6.3.6. Interview Participants' Experiences with Current Preparation Work

There were two questions designed to find out whether interviewees were required to carry out some sort of preparation work, and whether the requirement had any influence over their decision to participate. Just over a half were required to either clear their lofts or find an installer or technology, and some had to improve the overall energy efficiency of their homes. When asked whether the amount and nature of preparation work had any significant impact on their decision-making, homeowners felt that to a certain degree the removal of preparation work would make participating in a programme easier: "How many hoops do you have to jump through, and to be expected to do all that [preparation] work as well?" (Interview Participant No. 36).

Finally, interviewees were asked which of the six key aspects were the most significant for making the decision whether or not to participate. None of the participants assigned any significance to either the awareness raising avenues or the application methods. A small number of participants perceived measures as positively influencing their decision, while just under half of non-participants perceived the existing measures as negative features of the studied programmes. Just under a quarter of participants saw funding as a positive feature, and the same number of non-participants believed it a negative feature. Eligibility criteria did not represent a positive feature for anyone, but a minimal number perceived it as a negative one. Similarly, the requirement of preparation work was not seen as positive by any of the interviewees, but some perceived it as negative.

6.3.7. Interview Participants' Experiences with Current Works

The next questions about the last two aspects were posed only to actual participants in any of the studied programmes. The participants were asked to describe their experiences with the works delivered by the programmes' providers. Half of the participants were happy with the services they received; however, the other half had minor issues with the quality of works: dissatisfaction with the workers, their attitude and the state they left homeowners' properties in after they completed the works; receipt of unwanted goods; and disappointment with educational programmes.

6.3.8. Interview Participants' Experiences with Current Aftercare

Lastly, the question was posed whether or not participants received any form of aftercare. Some homeowners received a telephone call from the programme provider, but stated that the phone call was purely to establish that the homeowner had received the measures and was satisfied with the workmanship. Around three-quarters of participants did not receive any form of aftercare.

6.4 Interview Participants' Proposed Approach to Design of Future Home Energy Efficiency Programmes

Once the actual experiences of the studied programmes were determined, it was important to establish what the existing participants would have changed after participation, and what would persuade the non-participants to take part in a programme in the future. The interview participants were encouraged to design a programme or programmes with what they perceived as minimal barriers and maximum motivators.

6.4.1. Changes to Awareness Raising Proposed by Interview Participants

Even though awareness raising avenues were not perceived by interviewees as significant influencers of their decisions, they were seen by all as the most important first step in providing information to potential participants. Many of the interviewees were of the opinion that the current approach was ineffective and needed improvements: "I always considered myself interested in energy conservation and I thought I knew a lot about what is out there. But I was surprised to learn how many programmes there are. That just shows you how bad the advertising really is" (Interview Participant No. 7).

The interviewees were presented with a single question: how would you improve the existing awareness raising avenues? Again, the discussion here was split between awareness raising of the energy programmes and the wider environmental issue of climate change, and, again, both of these issues were included in the analysis. The homeowners provided a large variety of responses focusing on three areas: quantity; content and context; and avenues. A general consensus was reached that there needs to be constant but holistic awareness raising, not only of issues related to climate change, but more specifically to the existing programmes: "a series of adverts can be created, similar to the old Nescafé ads – almost a mini-series, that would show what is happening but also what can be done about it" (Interview Participant No. 41); "it [advertising] needs to be in your face, everywhere and all the time. A little bit like the Aids adverts used to be" (Interview Participant No. 11); and "The message has to remain the same and cannot be constantly changing" (Interview Participant No. 35). Contrary to the need to have more frequent and visible awareness, the homeowners were of the opinion that there are too many programmes and too many providers to enable an individual to make an informed choice between programmes. It was suggested that local authorities become solely responsible for advising the public and providing information on available programmes through a one-stop-shop.

The issue of quantity led to the introduction of the issue of content and context for the advertising campaigns. Homeowners suggested that the awareness raising should be targeted at specific groups of people using images that might appeal to each. For example, one interviewee commented, "use animals for animal lovers, point out the unnecessary waste to older generation, or try to make energy conservation desirable to young people through better life style" (Interview Participant No. 15). However, interviewees also suggested that, whichever images are used, whether of disasters or engendering empathy with an issue, they should be from a local environment that individuals can relate to: "We all know that the ice is melting and that they suffer bad droughts in Africa, but we cannot relate to that. We need to use what is happening here in the UK, like flooding in York for example" (Interview Participant No. 39). Most importantly, however, interviewees felt that all the campaigns related to energy conservation specifically should have a clear explanation, in easy to understand language, of how energy conservation translates to money savings: "We are all upset by some of the images of struggling animals and people from far away countries, but we are all a little bit selfish. We need to know that there is something in it for us. Using that logic, if you want to make people conserve energy tell them how they will benefit from it. Money is the easiest thing to relate to" (Interview Participant No. 9). Almost all of the interviewees agreed that all advertisement should avoid any 'blame and shame' tactic: "There is no point saying that we [individuals] are responsible for some disaster or another because we use too much energy. That just makes you want to give up trying all together. The task is too big for one person to deal with. Instead they should try to empower us through positive re-enforcement and tell us that we can change the world" (Interview Participant No. 1).

Lastly, content and context support the notion of holistic and constant awareness raising using all available avenues in modem marketing and advertising. The homeowners provided a list of various avenues that they believed could both raise awareness of climate change, but also of the existing programmes. The avenues included: popular TV programmes such as EastEnders; the use of a famous personality, in the way for example Jamie Oliver has drawn attention to healthy eating; the use of a local show-house featuring all available technology; and providing tailor-made advice to individuals; involving manufacturers and utilities; placing more responsibility on employers; and creating programmes that are focused on the whole community rather than individual households.

Furthermore, householders suggested that existing participants in a programme should be made automatically aware of what else they should or could do to improve the energy efficiency of their homes. The interviewees believed that the informational and educational loop could thus be repeated until all the possibilities and opportunities to save energy were exhausted. Lastly, the homeowners felt that the information and education programmes made very little sense and create very little difference when they are promoted on their own, and they should therefore be linked to other more technological programmes: "OK, so you sign up to say I will conserve energy, but then you do not do any of it. Nothing happens to you, nothing changes for you. But if you provide additional information on how to save energy when you are having something done, that might actually work. Like, use your new heating most efficiently and this is how" (Interview Participant No. 22).

6.4.2. Changes to Measures Proposed by Interview Participants

When discussing experiences with measures, it became clear that many homeowners decided not to participate because the measures on offer did not meet their needs or requirements. The interviewees therefore suggested that a wider choice of products and services is necessary to encourage greater participation: "Sooner or later they are going to run out of lofts and cavities to insulate and then what? The technology is out there, so why not make it available under those programmes?" (Interview Participant No. 30). Similarly, the need to offer measures (e.g. heat pump) that go beyond-the-typical was also raised. However, the greatest interest was expressed in tailor-made advice specific to individual homes and needs: "Having someone to come in, assess the house, tell me what I should do, how much it is going to cost me, how much I will save and where I can get everything I need, would be the ideal" (Interview Participant No. 23); "Knowing what you have and can do with or about it and be able to prioritize the jobs, would help me budget and plan" (Interview Participant No. 44).

Additionally, the interviewees felt that installing new technology or other energy efficiency measures without the education that would lead to the most efficient way of running their homes is a waste of opportunity, and programmes should therefore offer all-encompassing approach to energy efficiency: "Don't just install the most efficient boiler and leave me with a 150 odd pages of manual. Tell me how to use it to its maximum potential. You have the opportunity, so educate me" (Interview Participant No. 24).

6.4.3. Changes to Funding Proposed by Interview Participants

Funding was perceived as the greatest barrier to participation. The way to increase participation, according to most interviewees, was by either reducing the cost of participation or allowing participants to pay through savings or instalments. The homeowners would ideally like to see bigger grants and discounts particularly for renewable energy technology, but if this is not possible they suggested alternative ways of payment, and suggested the introduction of more favourable green loans. They also felt important to remove any hidden costs to participation.

6.4.4. Changes to Eligibility Criteria Proposed by Interview Participants

With the exception of broadening of the eligibility criteria for free energy programmes such as Warm Front, and reducing the complexity for programmes offering grants for renewable energy technology, the interviewees did not have any strong suggestions.

6.4.5. Changes to Application Methods Proposed by Interview Participants

The application method, homeowners felt, was not greatly important, but could still be improved in order to reach many more potential participants. Interviewees proposed a more interactive approach to application, where the interested homeowner would be kept informed on the progress of the application on a regular and frequent basis. The speed of responses to an application should be improved, and they should reduce the amount of information required in the first instance and limit the amount of small print.

6.4.6. Changes to Preparation Work Proposed by Interview Participants

The requirement for preparation work was not an important factor in decision-making; however, when designing a new programme, homeowners felt that the local authority should provide a service that would clear the loft for those who needed help, and should also provide help and guidance with the initial decision when selecting new technology.

6.4.7. Changes to Works Proposed by Interview Participants

The debate around work was rather limited and interviewees could not imagine what and how they would have changed or improved it, with the exception of shortening the times between application submission and works being carried out, keeping appointments, and taking better care of homeowners' possessions, and employing companies with tracked and proven record.

6.4.8. Changes to Aftercare Proposed by Interview Participants

Strong opinions were expressed when discussing the availability, practicality and usefulness of aftercare. Many homeowners felt that the lack of interest from the programme providers after interventions are completed is a wasted opportunity. Participants could be encouraged to carry on and explore other avenues to conserve energy: "I got a phone call to ask if I was happy with the workmanship. That was it. What a waste! They could have suggested the next step, what else to do and where to get it" (Interview Participant No. 8). Other suggestions on how to improve the aftercare stage included: "I would have liked practical advice on how to work out that it [cavity wall insulation] actually made a difference" (Interview Participant No. 6); and advice on how to calculate or measure the energy or monetary savings achieved by installing an energy efficiency measure.

6.5 Conclusions

The interviews raised many interesting issues. The experiences of participants revealed that overall, once homeowners decided to participate in a programme, they were generally happy with what they received. However, non-participants had encountered many barriers, which caused them to decide against participation. Lack of money was once again quoted as one of the biggest obstacles, followed by the limitations of a programme's measures. The interviewees were asked to design an ideal programme. Some of the most interesting conclusions can be drawn around the awareness raising avenues aspect, calling out for a consistent, holistic and comprehensive approach using various methods available for modern day marketing, advertising and general awareness raising. A summary of the findings from analysing the interview participants' experiences with current energy programmes and their proposed changes to the individual programmes' key aspects is presented in Table 6.2.

Table 6.2: Summary of findings from interview participants' experiences with current programmes and their proposed changes

Programmes' Key Aspects	**Interview Participants' Experiences**	**Interview Participants' Proposed Changes**
Awareness raising	Avenues experienced: direct mail linked to a free programme; chance encounter with staff; newspapers; journals; leaflets; and no prompts	Use of all available avenues: TV programmes; popular personality; local show-house; tailor-made advice; involve manufacturers, utilities and employers; and focus on community not an individual
	Use of inappropriate images	Provide constant and holistic awareness raising
	Use of inappropriate messages	Have fewer programmes run by local authority
		Produce advertisement that targets different audiences
		Produce localized adverts with local images etc.
		Use clear language, avoiding jargon and provide clear explanations
		Avoid the use of 'blame and shame' tactic
		Provide continuous information on other ways of conserving energy
		Incorporate advice and education into the more technical

Programmes' Key Aspects	Interview Participants' Experiences	Interview Participants' Proposed Changes
		programmes
Measures	Differences in the level of satisfaction with meeting expectations	Provide wider choice of measures
	Measures were still expensive even after receiving a grant	Provide measures that are beyond-the-typical
	Various information was seen as too complicated and difficult to understand	Provide tailor-made programmes
	Seeing no point in participating in advice and education programmes	Support the more technical programmes with advice and education
Funding	Programmes participated in offered: free measures; grant; or no economic incentive	Provide greater level of grant
	Grants offered were too low	Enable alternative payments: through savings; instalments; green loans
	Distrust in the funding organization	Remove hidden costs
Eligibility criteria	Criteria were too tight	Broaden the eligibility criteria
	Presented too much hassle to fulfil	Limit the amount of information required
	Criteria were too complex	Reduce the complexity
Application method	Methods used: online form; postal form; telephone.	Use more interactive approach and provide regular information on applications' progress
	There were too many delays between submitting application and receiving response	Speed up the response time
	Time has been wasted on cancelled appointments etc.	Reduce the amount of information required
	Some staff behaved inappropriately	Limit the amount of small print
Preparation work	Having to clear loft	Provide help with clearing the loft
	Having to increase the overall energy efficiency of the house	Provide initial guidance
		Reduce the complexity of preparation work
Works	Many participants were satisfied with works received	Shorten the time between application submission and works being carried out
	Some received bad workmanship	Keep appointments
	Others received unwanted goods	Take care of homeowners' possessions
	Disappointment with the advice and education programmes	Employ companies with tracked and proven record
Aftercare	None provided	Provide information on additional programmes/ways to save energy
	Limited to quality control	Provide help with calculating energy/money savings

In the next chapter, the empirical evidence is used to assess the studied programmes to determine whether, if at all, they overcome the identified barriers, enhance motivators and thus theoretically encourage participation. The following chapter also provides analysis of how important individual issues, such as motivators, are to homeowners within the established programmes' key aspects. The combined results will enable the final objective, the creation of an evidence-based theoretical framework for the design of future programmes, to be fulfilled in Chapter Eight.

Chapter SEVEN

Assessment of Energy Programmes

Assessing Home Energy Efficiency Programmes from Homeowners' Viewpoints

7.1 Introduction

The empirical evidence from Chapters Five and Six was used in this chapter to assess the identified energy programmes from homeowners' viewpoints, therefore fulfilling the third objective of the research:

- **To assess how well barriers and motivators are addressed in current programmes designed to encourage homeowners to reduce energy consumption in the home.**

Prior to the assessment of the home energy efficiency programmes, the actual barriers and motivators, as identified by homeowners, are summarized and a discussion and comparison with findings from literature review is offered in section 7.2. The effectiveness with which energy programmes address the issues raised is assessed next. In order to do that, two analyses are presented in section 7.3: the first analysis establishes, with the use of a one to five rating scale, how significant are the identified barriers and motivators for homeowners' decision-making; the second analysis ascertains, also with the use of a one to five scale, the level of success with which energy programmes manage to overcome the barriers or enhance the motivators. Lastly, a short discussion of the assessment results is presented.

7.2 Summary of Results from Empirical Evidence

In Chapter Two theoretical barriers and motivators that influence people's willingness to conserve energy through general environmentally friendly behaviour were identified by a review of the literature. These barriers and motivators are reproduced here in Table 7.1. These were investigated empirically in this research through the use of postal questionnaires and semi-structured interviews on opinions and experiences of a wide range of energy programmes.

Table 7.1: Theoretical individual and contextual barriers and motivators identified from literature review

Theoretical Individual Barriers	**Theoretical Contextual Barriers and Motivators**	**Theoretical Individual Motivators**
Lack of knowledge	Inappropriate communication	Money savings
Lack of available funds	Unsuitable infrastructure	Availability of incentives
Lack of time	Raising energy costs	Altruistic values
Lack of trust		Right circumstances

7.2.1 *Summary of Results Concerning Barriers to Participation*

The empirical research to a large extent confirmed that the theoretical barriers and motivators to general energy conservation also apply to participation in energy programmes. The research, however, provided further information that elaborated the categories of barriers (Table 7.2) and motivators (Table 7.3) in terms of issues relevant and specific to participation in energy programmes.

Table 7.2: Barriers to participation in existing home energy efficiency programmes identified from empirical work

Barriers Identified from Literature Review	**Barriers Identified by Empirical Research**
Lack of knowledge	Of the best solutions or the most suitable programme
	Of where to find reputable installer
Inappropriate communication	Use of inappropriate images
	Use of inappropriate messages
	Fragmented and infrequent advertising
	Inappropriate and incorrect advice
	Lack of information on progress
	Missed opportunity on providing further advice
Lack of available funds	Too expensive
	Small grant
	Small fuel and subsequent money savings
	Lack of incentives (economic and non-economic)
	Hidden costs
Lack of time	To compare and contrast the available programmes
	Wasted time on appointments and other communication
	Measures not suitable
	Minimal or no choice of measures
	Compliance with eligibility criteria
	Hassle factor - inconvenience in a form of preparation work and the time it took to organize etc.
Lack of trust	In technology
	In programme provider
	In the organization providing the funding
	In reliability of installers and suppliers

The literature review identified lack of knowledge as one of the main barriers to adopting energy efficient behaviour. In Chapter Two, the two different views regarding knowledge were presented: one group of scientists (e.g. Barr et al., 2001, and Kollmuss and Agyeman, 2002) propagate the view that knowledge of an issue, for example the global environmental situation, must be attained for people to change their behaviour; the other group of scientists (and Stern, 2000, e.g. Steg, 2008) insist that people must know what to do, where and how to do it, in order to change their behaviour: for example, they must know what to recycle. The empirical data analyses support the latter view, and suggest that participants lack the knowledge of the best solutions and the most suitable programme. For some respondents a barrier also existed in not knowing where to find a reputable installer when the programme required it.

Many researchers have criticized approaches to communication, including marketing and advertising, in encouraging behaviour change, an issue that was also raised by participants in this study. The participating homeowners found it difficult to distinguish between communication that tries to raise awareness of general environmental issues, such as climate change, and communication that promotes energy conservation specifically. They also felt that the images, using for example polar bears, and messages stating that homeowners are responsible for the state of the environment are inappropriate. They argued that much more localized images and messages containing much less fear and blame would be more appropriate. The language used in communication campaigns was also criticized by homeowners, and supports the already established censure (see for example Darnton, 2004, Owens and Driffill, 2008) that too much technical jargon is used, with too much emphasis on a technology sale. The interviewed homeowners also suggested that using one campaign for people from all walks of life is ineffective, thus supporting the need for targeted marketing proposed by for example Barr (2006), Nicholson-Cole, (2005) and Thøgersen, (2007). Here is where the commonalities between the barriers identified by literature review and empirical research end and the next four issues are explicitly related to communication relevant to energy programmes.

The homeowners were surprised by the number of available programmes and said that, for the majority of them, they had never seen or heard any promotional material related to them. The minimal frequency and the lack of visibility of the marketing campaigns for energy conservation, particularly energy programmes, were therefore identified as one of the main problems with programmes' promotion. The programmes were also criticized for the provision of inaccurate advice and verbal communication from programme providers. The context of the criticized advice was related predominantly to the existence of hidden costs and inability to provide comprehensive, impartial and one-stop advice. The problem with the style of communication used by some of the energy programmes' staff was that many homeowners felt patronized and were embarrassed to ask questions. Many homeowners also did not like the absence of a two-way conversation between them and the programme provider, and believed that they would benefit from frequent and relevant information exchange on the progress of their participation. Lastly, the homeowners thought that there was a missed opportunity in providing information about additional energy conservation. This, according to participants, should occur immediately after participation in one programme is completed. At this time, they felt, any education and advice should be provided to maximize the benefits of programme participation.

Lack of funding in its various forms, including grants, subsidies and economic incentives, is seen by many scientists (e.g. Jackson, 2005, Lorenzoni et al., 2007, Ockwell et al., 2009) as the most influential barrier to environmentally friendly behaviour. One conclusion supported by this empirical research was that grants offered are, for most programmes, too low, and fuel and money savings achieved by implementing energy efficiency measures are also too small, while incentives are minimal, non-existent or insufficient. Participants in this study also pointed out that the programmes contained many hidden costs, which they found unacceptable and/or unfair.

Much research has investigated whether time poses a considerable barrier to environmentally friendly behaviour. It concludes (e.g. Jackson, 2005, Lorenzoni et al., 2007, Ockwell et al., 2009) that for many people time does certainly present a barrier. Contrary to this, the homeowners questioned for this study did not see time as a significant barrier, although for some it presented an issue when comparing and contrasting the available programmes in order to select the most suitable one. However, the homeowners agreed that the time wasted on appointments and the time it took to receive a reply to their application was a potential barrier to future participation.

Ajzen, (1991), Bedford, (2004), and Darnton (2004), amongst others, argued that correct physical infrastructure that encourages and enables environmentally friendly actions is very important. This research verifies this argument, and points out that the 61 per cent non-progression rate from knowledge to participation was partially due to the unsuitability of measures. Many homeowners therefore believe that the programmes do not offer measures that are required, necessary and relevant to them (e.g. solid wall insulation). Homeowners also disliked the limited choice of measures and in some cases the necessity to comply with eligibility criteria. Additionally, homeowners considered some of the programmes overly demanding with too much hassle connected to, for example, clearing the loft or finding an installer to carry out the works. They did not, however, perceive disruptions and the possibility of works spoiling the character of their houses as important barriers to participation in energy efficiency programmes.

Previous research showed lack of trust in scientific information and organizations providing that information as a considerable barrier to environmentally friendly actions (Bedford et al., 2004, Opotov, 2000 #510, UK-GBC, 2008). The empirical evidence generated by this research challenges, to some degree, the view that trust in scientific information poses a barrier to participation, but revealed that homeowners are distrustful of organizations providing funding for certain measures, and of the reliability of some installers and suppliers. Lack of trust in technology and a programme provider was, to a lesser degree, also an issue for some research participants.

7.2.2 *Summary of Results Concerning Motivators to Participation*

While barriers are generally believed to be far more influential and important determinants of behaviour, motivators are important triggers of initial interest in an issue and act as catalysts for action. It is therefore very important, in order to design successful energy programmes, to understand all the factors motivating participation. Table 7.3 presents motivators identified by the empirical research for this study.

Table 7.3: Motivators to participation in existing home energy efficiency programmes identified by empirical work

Motivators Identified from Literature Review	Motivators Identified by Empirical Research
Money saving	Offer of cost-effective measures
	Short payback period
	Free measures
Availability of economic incentives	Special offer
	Grants available
	Adequate fuel and money savings
	Alternative payment options
	Good value for money
Availability of other incentives	Good quality measures
	Easy participation, no hassle
	Provision of educational aspect
	Tailor-made interventions
	Proven results
Rising energy costs	Rising energy costs
Altruistic values	Reduction of harmful emissions
	Preservation of finite fuels
Right circumstances	Replacing heating system
	Replacing appliances
	Communication
	Persuasive form of advertising
	Impartial, up-to-date and accurate advice
	Accurate description of processes
	Timely feedback and information on progress
	Provision of information on additional ways to save energy

As in the case of barriers, economic factors in all their forms (e.g. grant, incentives) are a great motivator to action (see for example Hargreaves et al., 2010, Stephenson et al., 2010, Whitmarsh and O'Neill, 2010). The participating homeowners were encouraged by money-saving features of the programmes, which included cost-effective measures with a short payback period, but favoured free measures. Next, they were motivated by the availability of incentives, predominantly but not necessarily economic. They again favoured free measures, followed by high grants or subsidies, adequate money and fuel savings, but also alternative payment options such as payment from savings or by instalments and good value for money. Among the non-economic incentives were good quality measures with easy and no-hassle participation, provision of educational aspects with each programme and tailor-made programmes with proven results. The evidence of non-economic motivators supports previously established views that incentives need not be financial (for example Steg, 2008, Darby, 2010). The last economic motivator, the rise in energy costs, is motivating enough in its own right and homeowners tend to respond to energy cost rises by conserving energy through behaviour changes (e.g. turning off lights when not needed).

Altruistic values, such as the desire to protect the environment and preserve finite resources for future generations, are generally believed to be strong motivators for behaviour change (e.g. Kaplan, 2000, Bedford et al., 2004, McMakin et al., 2009), but the empirical evidence shows them to be much weaker motivators. There was some mention of the desire to reduce harmful emissions and preserve finite fuels, but these altruistic motives did not figure very strongly and were overshadowed by economic issues. Bamberg (2007) and Jackson (2005), amongst others, argued that in order for people to change their behaviour they must be presented with the right circumstances. A number of such circumstances (e.g. extending house, converting loft, moving into new property, improving saleability of the home and complying with building regulations) were examined in this research, but they too proved to be rather weak motivators. The exception was that homeowners felt they would consider improving energy efficiency when their heating system or appliances needed replacement due to their age or diminished functionality.

Researchers perceive communication as much more of a barrier (for example Bedford et al., 2004, Owens and Driffill, 2008, do Paço and Varejão, 2010) rather than a motivator to environmental action (for exceptions see Agyeman and Angus, 2003, Jackson, 2005, Nicholson-Cole, 2005, Ockwell et al., 2009). While homeowners also saw incorrect communication as a barrier, they perhaps felt much more strongly about the persuasive form of communication acting as a much more significant motivator to action.

7.3 Assessing How Home Energy Efficiency Programmes Manage Barriers and Motivators

As mentioned in section 7.2 the theoretical barriers and motivators identified in Chapter Two were, to a large extent, supported and expanded by the empirical findings. However, this thesis looks further than simply establishing what factors hinder or motivate homeowners to participate: it seeks to identify, from homeowners' viewpoints, how the current energy programmes address those factors; how successful, in their view, the actions put in place by energy programmes' providers actually were in overcoming the barriers and enhancing motivators.

In order to achieve this, the identified barriers and motivators were assigned values indicating, first, their significance to homeowners and, second, how successful or otherwise the energy programmes were in dealing with them, in the opinion of homeowners. The results of the complete analysis are presented in Tables 7.4 and 7.5.

7.3.1 Development and Assignment of Values of Significance of Barriers and Motivators and the Level of Energy Programmes' Success of Overcoming or Enhancing them

Two sets of rating scales with values from one to five were developed. The first scale, establishing how important individual barriers and motivators are to homeowners, is based on the results of quantitative data analysis with the following rating:

1. **Not significant** – identified by four or less per cent of homeowners as the highest ranking factor
2. **Moderately significant** – identified by five to nine per cent of homeowners as the highest ranking factor
3. **Average** – identified by 10 to 14 per cent of homeowners as the highest ranking factor
4. **Significant** – identified by 15 to 19 per cent of homeowners as the highest ranking factor

5. **Very significant** – identified by 20 or more per cent of homeowners as the highest ranking factor

The second scale, identifying whether energy programmes, in the opinion of homeowners, address the barriers and motivators successfully, is again formed from the results of qualitative data analysis. While the first scale is systematic, the second scale is rather more arbitrary and stems from the interpretation of predominantly qualitative data, again obtained from postal questionnaires and interviews. The criteria for the ranking scale are:

1. **Unsuccessful** – only negative comments, such as "I did not like/was not satisfied with . . ."
2. **Moderately unsuccessful** – predominantly negative comments with the occasional positives, such as "Overall I was not happy with the programme, but I have liked . . ."
3. **Neither successful or unsuccessful** – even spread between positive and negative comments
4. **Moderately successful** – predominantly positive comments with the occasional negatives, for example "I liked it, but it could have been better."
5. **Successful** – only positive comments such as 'I was happy/satisfied . . ."

The empirical data presented in Chapters Five and Six were analysed using the two rating scales described above. The results are given in Tables 7.4 for barriers and 7.6 for motivators.

Table 7.4: Assessment of energy programmes' management of barriers from homeowners' viewpoint

Barrier	Significance	Success
Lack of knowledge of the best solution	4	2
Finding reputable installer	2	2
Inappropriate images	3	3
Inappropriate messages	3	3
Infrequent advertising	5	1
Incorrect advice	4	2
Lack of information on progress	3	1
Missed opportunity for further advice	5	2
Too expensive	5	1
Small grant	4	1
Small fuel or money savings	2	3
Lack of incentives	3	3

Barrier	Significance	Success
Hidden costs	2	3
Lack of time to compare and contrast the available programmes	2	3
Wasted time on missed appointments	5	3
Measures not suitable	5	1
Compliance with eligibility criteria	3	4
Not enough choice of measures	5	3
Hassle factor	5	2
Lack of trust in technology	2	4
Lack of trust in programme provider	2	4
Lack of trust in the organization providing the funding	3	2
Lack of trust in reliability of installers	2	4

Next, the barriers were assigned to the programmes' key aspect(s) that deals or should deal with the identified issues. Through this process it was possible to consider which key aspects represent the most important stages in programme participation and suggest where improvement is necessary in order for the programmes to be successful. It is important to note, however, that one barrier, lack of information on progress, was felt to be outside the scope of the eight key aspects categories and was therefore excluded from the analysis presented in Table 7.5. The implication of this is discussed in section 7.3.2.

Table 7.5: Allocation of barriers to participation in home energy efficiency programmes in programmes' key aspects

Programmes' Key Aspect	Barrier	Significance	Success
Awareness raising	Infrequent advertising	5	1
	Missed opportunity for further advice	5	2
	Lack of knowledge of the best solution	4	2
	Incorrect advice	4	2
	Lack of trust in the organization providing the funding	3	2
	Inappropriate images	3	3
	Inappropriate messages	3	3
	Difficulty finding reputable installer	2	2
	Lack of time to compare and contrast available programmes	2	3
	Lack of trust in technology	2	4
	Lack of trust in programme provider	2	4
	Lack of trust in reliability of installers	2	4
Measures	Measures not suitable	5	1
	Not enough choice of measures	5	3
	Lack of trust in technology	2	4
Funding	Too expensive	5	1
	Small grant	4	1
	Lack of incentives	3	3
	Small fuel or money savings	2	3
	Hidden costs	2	3
Eligibility criteria	Compliance with eligibility criteria	3	4

Programmes' Key Aspect	Barrier	Significance	Success
Application methods	Hassle factor	5	2
Preparation work	Hassle factor	5	2
Works	Wasted time on missed appointments	5	3
	Lack of trust in reliability of installers	2	4
Aftercare	Missed opportunity for further advice	5	2

The process was repeated for the motivators identified through the questionnaire and interview data analysis (see Table 7.6 and Table 7.7).

Table 7.6: Assessment of energy programmes' management of motivators from homeowners' viewpoint

Motivator	Significance	Success
Offer of cost-effective measures	3	2
Short payback period	2	2
Free measures	5	1
Adequate level of grant	5	1
Adequate fuel and money savings	3	2
Offer of good value for money	5	2
Alternative payment options	5	2
Offer of good quality measures	3	3
Easy participation	4	3
Provision of educational aspect	3	4
Tailor-made	5	1
Proven results	4	2
Raising energy costs	5	1
Reduction of harmful emissions	5	3
Preservation of finite fuels	3	4
Replacing heating system	5	1
Replacing appliances	3	2
Persuasive form of advertising	5	1
Good quality advice	5	2
Description of processes	3	1
Information on progress	3	1
Provision of information on additional ways to save energy	4	1

As in the case of barriers, there were a number of motivators that fell outside the remit of the programmes' key aspects. These were: rising energy costs; replacing heating system; replacing appliances; description of processes and information on progress. These motivators and the implications they might have on programmes' design are presented in section 7.3.2.

Table 7.7: Allocation of motivators to participation in home energy efficiency programmes in programmes' key aspects

Programmes' Key Aspect	Motivator	Significance	Success
Awareness raising	Persuasive form of advertising	5	1
	Good quality advice	5	2
	Information on reduction of harmful emissions	5	3
	Provision of information on additional ways to save energy	4	1
	Information on preservation of finite fuels	3	4
Measures	Tailor-made	5	1
	Measures leading to reduction of harmful emissions	5	3
	Proven results	4	2
	Provision of educational aspect	3	4
	Measures leading to preservation of finite fuels	3	4
	Offer of good quality measures	3	3
	Adequate fuel and money savings	3	2
Funding	Free measures	5	1
	Adequate level of grant	5	1
	Offer of good value for money	5	2
	Alternative payment options	5	2
	Offer of cost-effective measures	3	2
	Adequate fuel and money savings	3	2
	Short payback period	2	2
Eligibility criteria	Easy participation	4	3
Application methods	Easy participation	4	3
Preparation work	Easy participation	4	3
Works	***None provided***	-	-
Aftercare	Provision of information on additional ways to save energy	4	1

7.3.2 Discussion of Assessment Results

Despite the proliferation of existing energy programmes, the increased awareness of environmental issues and the recent rise in energy prices, the findings suggest that programmes still do not attract the desirable number of participants to consider them successful in terms of participation. However, it is worth noting again that once homeowners decide to participate, they find very little that causes them dissatisfaction with the programme. In order to increase participation, it is important to recognize homeowners' experiences and opinions of existing programmes, and incorporate them into the design of new ones, while accepting and acknowledging the existence of numerous other factors, outside the scope of this study, that will affect participation (e.g. personal circumstances, level of education). By doing so, some of the barriers to participation might be removed, or at least lessened, and motivators enhanced.

Before analysis of the considered effectiveness of individual programmes' key aspects is presented, a short discussion is offered based on the empirical evidence regarding the three groups of programmes (insulation and appliances, advice and education, and renewable energy technology). The statistical data showed that the programmes in the insulation and appliances group reached the greatest number of people and achieved the largest participation numbers (for details see Chapter Five). The data also showed that homeowners would be willing to participate in insulation programmes that are relevant to their needs and meet their expectations in the future. The programmes in the renewable energy technology group, conversely, achieved the lowest numbers in knowledge and participation, but noted the greatest interest among homeowners for future participation. The programmes in the advice and education group were perhaps the most contradictory, achieving a moderate number of homeowners with knowledge about the programmes, but minimal participation numbers, and while 17 per cent of homeowners would consider participating in any of these programmes in the future, a far larger proportion of homeowners saw very little benefit in doing so. The results suggest that some reconsideration of the artificial division of energy programmes is needed.

Consideration then turned to assessing how efficient, in the views of homeowners, the programmes' key aspects were in addressing barriers and motivators. The data identified three of the key aspects as potentially most influential over homeowners' decisions on whether or not to participate in a programme. The key aspects were: awareness raising; measures; and funding. Awareness raising should fulfil three objectives: to raise initial interest in a programme; to provide enough good quality information to erase any existing doubts (e.g. provide information on the reliability of technology used); and, after participation, provide additional information for any relevant and continuous energy conservation activities. This key aspect, according to homeowners, is one of the most important stages in decision-making, but as Figures 7.1 and 7.2 illustrate, the more important a factor is to homeowners, the less successfully, they feel, the programmes are in managing them. This result could be expected, given the method in which the levels of significance and success were assessed. Nonetheless, the results provide the necessary information for the design of future programmes (e.g. they highlight areas needing the greatest improvement).

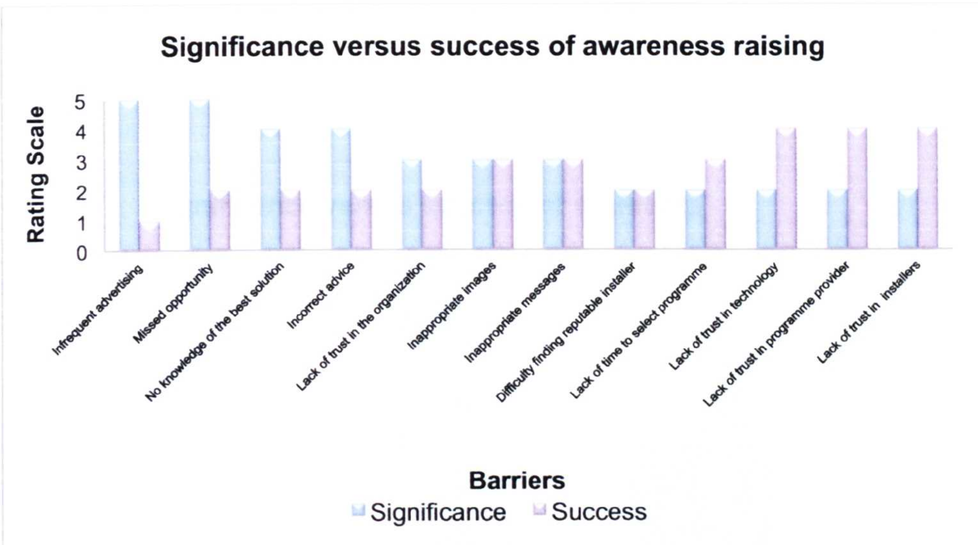


Figure 7.1: The level of barriers' significance to homeowners and their views of how successfully programmes' aspect 'awareness raising' manages them

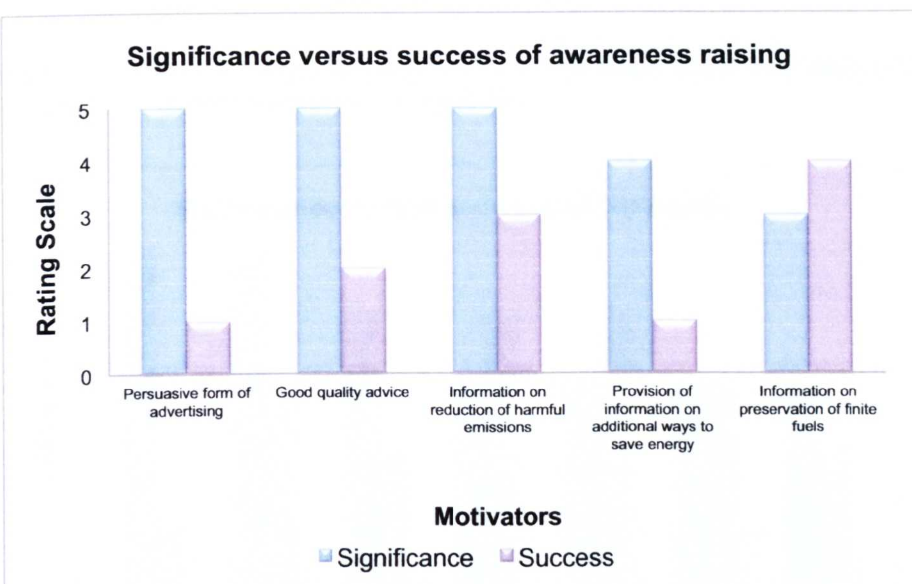


Figure 7.2: The level of motivators' significance to homeowners and their views of how successfully programmes' aspect 'awareness raising' manages them

The second most important aspect, measures, is the core of the programme. At this stage homeowners decide whether the programmes offer something that they need, want and could benefit from. It is therefore very important to them for programmes to contain wide-ranging measures with a number of options for each type of energy conservation activity. Again, however, as Figures 7.3 and 7.4 demonstrate, the most important factors, such as suitability of measures and the availability of tailor-made solutions, scored very high on the significance scale, but very low on the success scale. The reverse is also true where the very unimportant factors scored very high on the success scale.

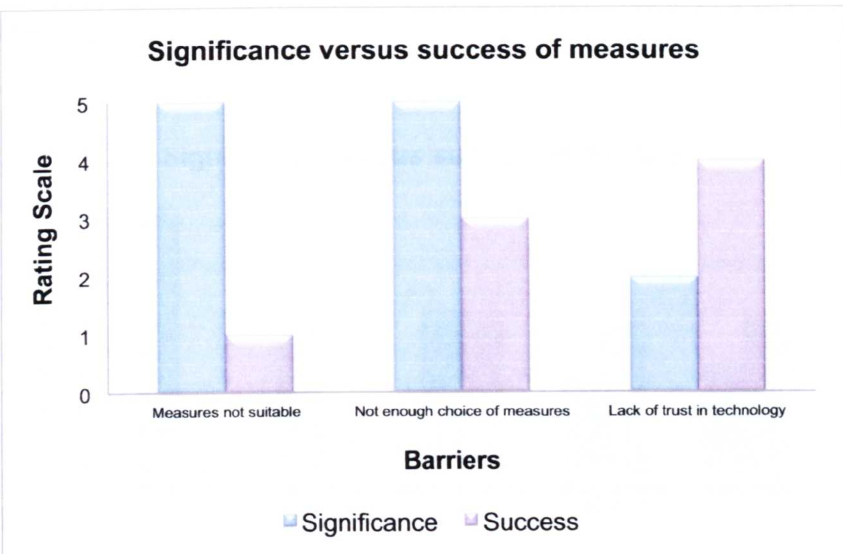


Figure 7.3: The level of barriers' significance to homeowners and their views of how successfully programmes' aspect 'measures' manages them

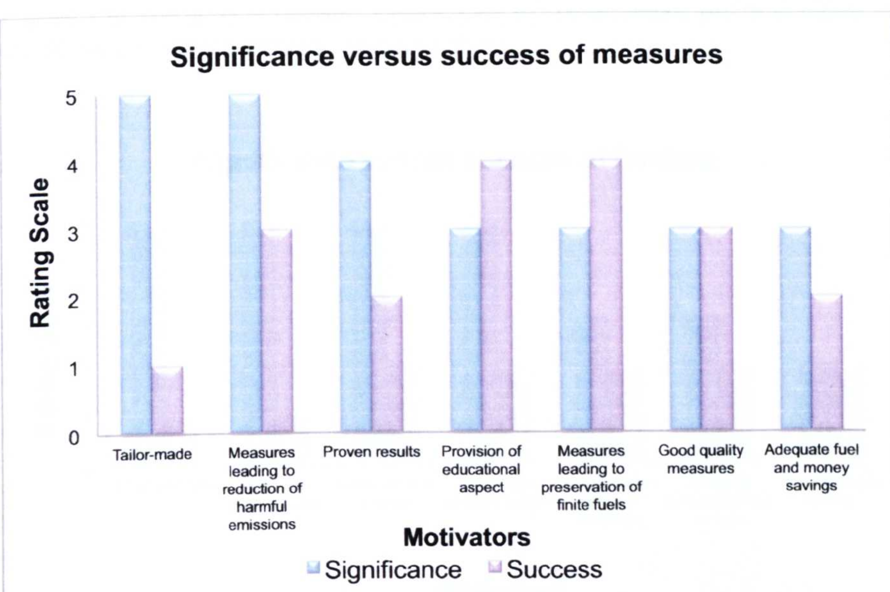


Figure 7.4: The level of motivators' significance to homeowners and their views of how successfully programmes' aspect 'measures' manages them

The last of the most influential aspects is funding, which is very often the single most important deciding factor. Homeowners expressed a view that current programmes are too expensive with inadequate levels of grant, and that free measures, together with a sufficiently high level of grant, would be necessary to encourage them to participate. Once more, Figures 7.5 and 7.6 show that, in the opinion of homeowners, the programme providers deal with the most important factors with the least success.

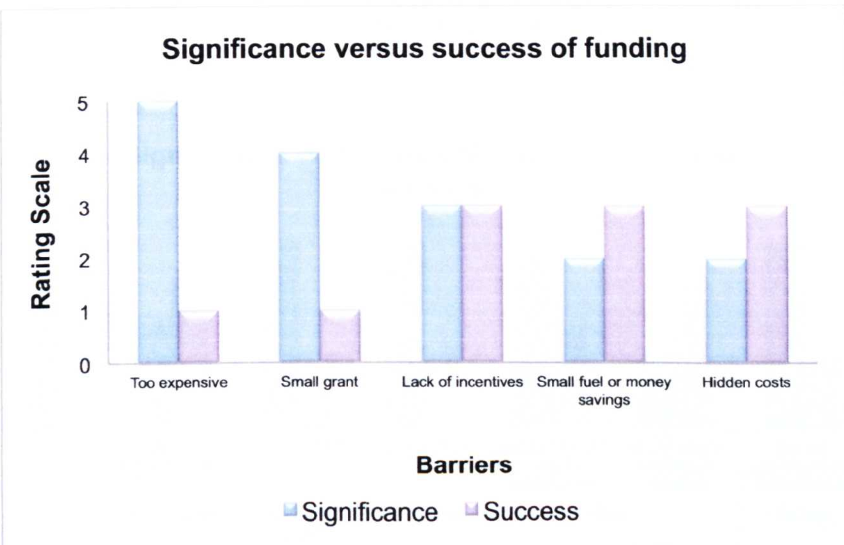


Figure 7.5: The level of barriers' significance to homeowners and their views of how successfully programmes' aspect 'funding' manages them

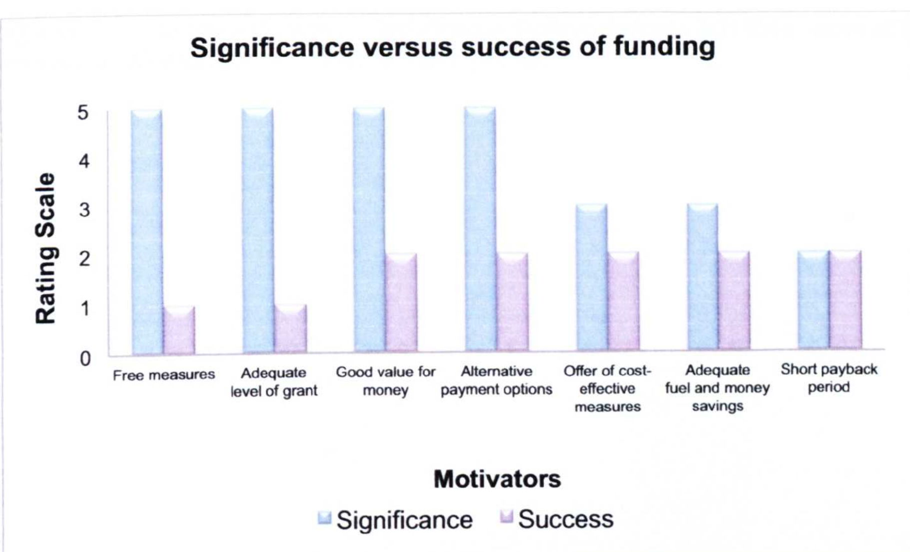


Figure 7.6: The level of motivators' significance to homeowners and their views of how successfully programmes' aspect 'funding' manages them

The remainder of programmes' key aspects were amalgamated into two figures: Figure 7.7 for barriers; and Figure 7.8 for motivators. The most important barrier is the belief that participation in programmes carries with it a certain degree of hassle, which is especially relevant to application methods and preparation work aspect. Another significant barrier to participation is the lack of relevant aftercare that homeowners felt could provide incentives for further energy conservation. As comparatively strong motivator, for the remainder of the key aspects, is the belief that participation is easy and hassle-free. Note the omission of the 'works' key aspect, which does not contain any motivating factors, from Figure 7.8.

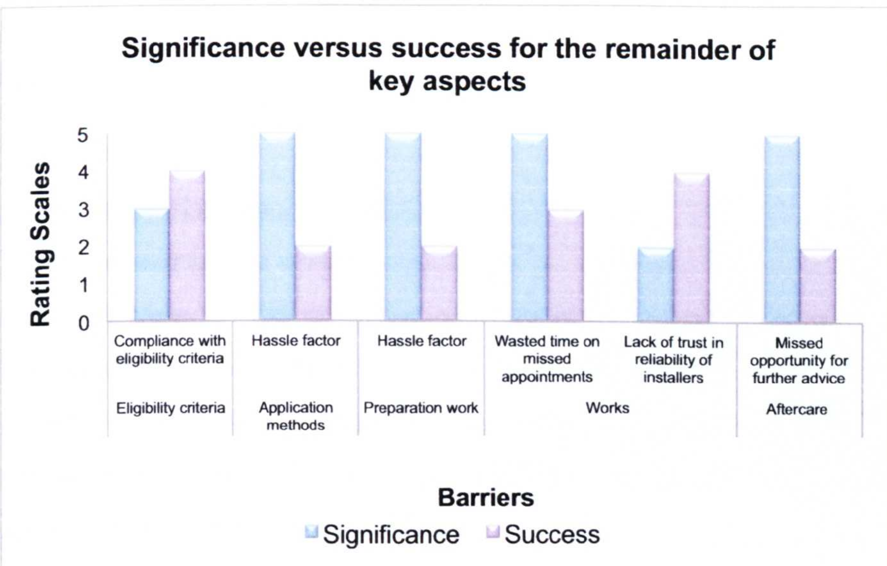


Figure 7.7: The level of barriers' significance to homeowners and their views of how successfully the remainder of programmes' aspects manage them

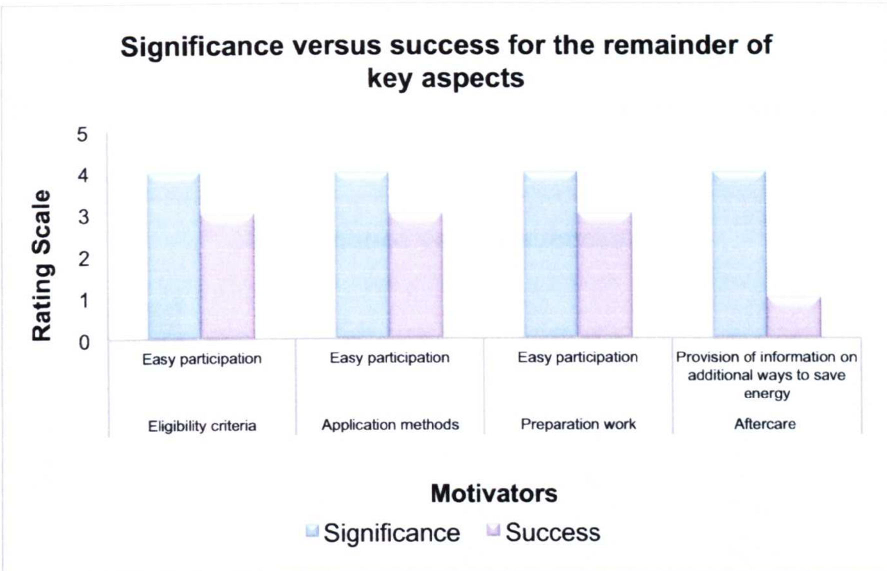


Figure 7.8 The level of motivators' significance to homeowners and their views of how successfully the remainder of programmes' aspects manage them

Lastly, attention was turned to the barrier and motivators that could not be easily analysed within the established aspects of programmes. As Figure 7.9 shows 'lack of information on the progress' scored three on the significance scale and one on the success scale. While not the most significant barrier, it causes distrust and creates unnecessary hassle, connected to for example telephone calls to homeowners who would not, partially based on this experience, consider participation in future programmes.

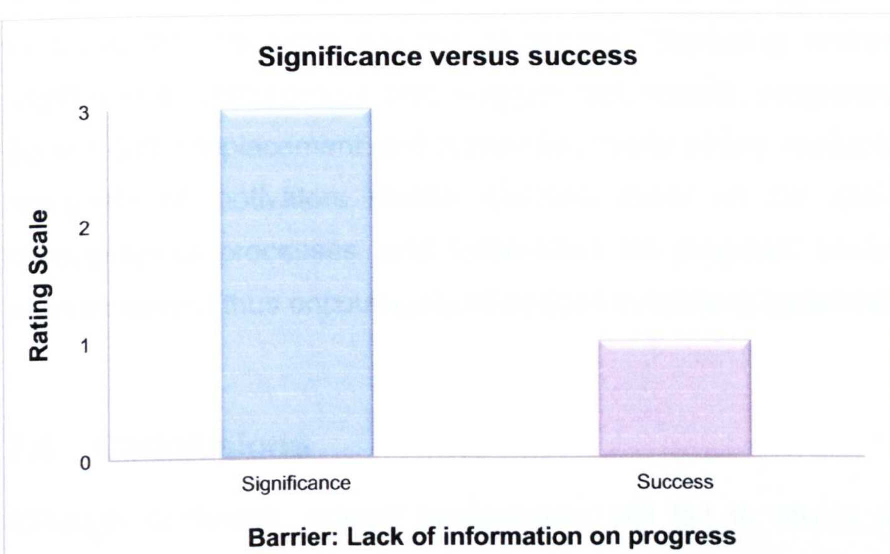


Figure 7.9: The level of barrier's (lack of information on progress) significance to homeowners and their views of how successfully the current energy programmes manage them

Figure 7.10 illustrates the difference between significance and success of the remaining motivators achieved by the programmes as identified by homeowners.

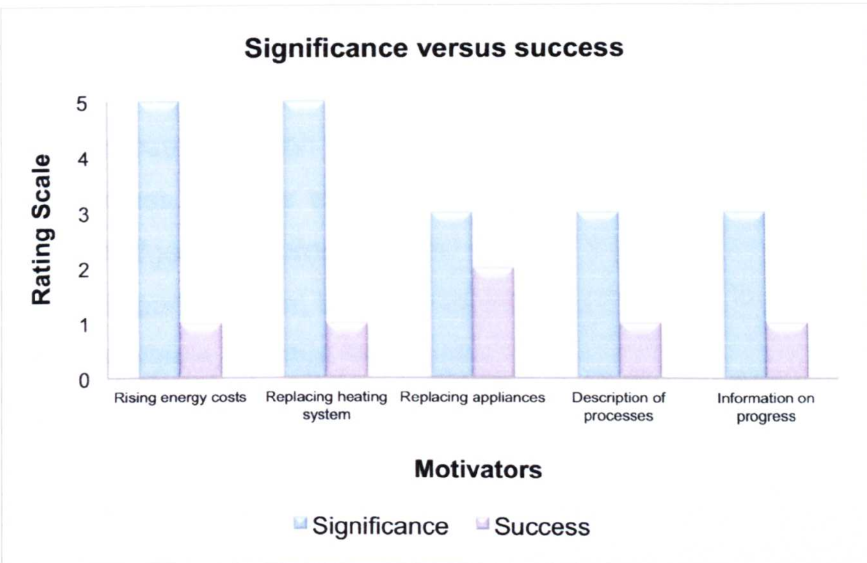


Figure 7.10: The level of additional motivators' significance to homeowners and their views of how successfully the current energy programmes manage them

Significant factors were the issues of 'rising energy costs' and 'replacing heating system'. The rising energy costs are caused by the energy market, and as such could not be directly addressed by energy programmes. However, it is a strong trigger for homeowners to explore all avenues of energy efficiency, and programmes should therefore be in place before the next rise in energy costs to enable them to conserve the maximum amount of energy. 'Replacing heating system' is also significant to homeowners who suggest that specific programmes offering grants toward boiler replacement and installation made widely available are needed. The remainder of motivators scored relatively lower on the scale, but overall the 'description of processes' and 'information on progress' could create a positive experience and thus encourage participation in future programmes.

7.4 Conclusions

Although numerous, energy programmes still fail to attract a large number of participating homeowners. This chapter considered the actual barriers and motivators derived from the combined quantitative and qualitative empirical evidence and analysed how important these factors were to homeowners and, more importantly, how successfully homeowners felt that programmes addressed them. The most significant conclusion is that homeowners feel that the most significant issues to them are addressed by programme providers with the least degree of success. The analysis identified awareness raising, measures and funding as the most important and potentially influential key aspects of programmes. This chapter also proposed a notion that it might be necessary to remove the artificial division of programmes in order to create all-round successful programmes. Lastly, it briefly acknowledged that programmes cannot manage and incorporate all aspects that influence participation, but it calls for comprehensive programmes to be devised and made available, so that homeowners' needs and requirements can be met when they consider participation.

Chapter Seven forms the core of the new theoretical framework presented in Chapter Eight. The new theoretical framework is evidence-based and will therefore draw not only on the empirical evidence presented in Chapters Five and Six, but also on the theoretically established knowledge presented in Chapter Two, in order to provide comprehensive advice for future energy programmes' design.

Chapter EIGHT

Theoretical Framework

Development of an Evidence-based Theoretical Framework for Home Energy Efficiency Programmes' Design

8.1 Introduction

The existence of home energy efficiency programmes dates back to around the 1970s. From the first awareness raising campaign 'Save It', many more programmes followed. While the subject of energy conservation is gaining momentum and the UK government sends out a clear message that domestic energy consumption and its related emissions must be reduced, the programmes designed to achieve just that are still not fulfilling their purpose. Much research has been undertaken to establish why people are reluctant to change their behaviour and save energy, but very little of this knowledge has been translated into the design of energy programmes. It is the aim of this thesis to bridge this gap, and it therefore first identified theoretical barriers and motivators to behaviour change, followed by the examination of various energy programmes and their features, before translating the empirical knowledge into practical ideas for future programmes. The theoretical knowledge together with the results from the empirical research were used to fulfil the fourth and final objective:

- **To develop an evidence-based theoretical framework for devising programmes that are likely to be effective in terms of homeowners' participation.**

This chapter briefly reviews the original approach to energy programmes' design before proposing a new evidence-based theoretical framework (section 8.2). The new framework contains the same number of key aspects, but, as section 8.3 illustrates, these are approached from much wider perspective incorporating the well-established theoretical knowledge together with the new empirical evidence.

8.2 Approaches to Energy Programmes' Design

In Chapter Three, nine key aspects of energy programmes were identified, but only eight were examined further since all programmes employed the positive approach to 'nature of intervention' aspect and therefore no examination, contrast and comparison of this particular aspect could be made. The eight key aspects were: awareness raising; measures; funding; eligibility criteria; application methods; preparation work; works; and aftercare. Before proposing a new evidence-based framework for the design of future energy programmes, it is important to summarize the existing approach and, using the research data, provide a critique of it.

8.2.1. Existing Approach to Energy Programmes' Design

As mentioned in Chapter One, the current energy programmes tend to be introduced following change in an existing policy or introduction of a new policy or legislation. This approach is very reactive and often leads to creation of a programme within a short space of time, and without giving due consideration to the process of design and implementation. More often than not, existing bodies (e.g. Energy Efficiency Advice Centres) are put in charge of promotion and administration of the programmes. Established and 'tried and tested' methods of awareness raising are employed without real knowledge of whether or not they are likely to reach the intended recipient. A set amount of money is allocated to each programme, which is typically assigned to a specific measure that the programme is designed to deliver. The application methods and eligibility criteria depend largely on the funding body. Various requirements of preparation work reflect the measures on offer, and nominated contractors or homeowners themselves carry out the works. Minimal or no attention is paid to aftercare. The programme ends as and when the allocated money is spent or new programme supersedes it. The process, as seen in Figure 8.1, is very linear, inflexible and prone to sudden and frequent changes.

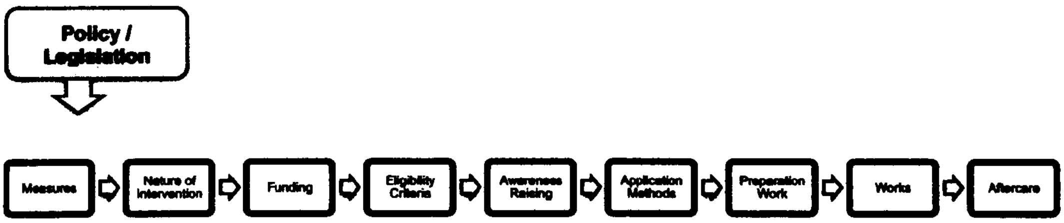


Figure 8.1: Existing approach to the design of home energy efficiency programmes

8.2.2. Proposed Approach to Energy Programmes' Design

The newly proposed theoretical framework (Figure 8.2) is constructed not only from the generally accepted understanding of barriers and motivators for behaviour change towards more pro-environmentally friendly actions, but also, more importantly, from the findings of the empirical research for this study. The empirical evidence suggested five changes to the established approach to programmes' design and implementation. The homeowners' unhappiness with the frequent changes in energy programmes and the limited range of measures suggests that it would be prudent to create programmes based on homeowners' needs rather than driven by policy objectives and changing legislation. The lack of continuous communication between programme provider and homeowners causes many of them to withdraw their interest in a programme, and it is therefore suggested that the awareness raising feature should be changed into a communication feature. The communication, as depicted in Figure 8.2, should happen at every stage of participation and should be of a two-way nature (i.e. from participant to programme provider and vice versa). The application methods aspect, which originally focused on identifying the approach each programme employed to allow homeowners to apply for participation, could be renamed application and focus on much wider issues, such as the type of information required.

The issue of a missed opportunity for further energy conservation was identified as a significant barrier. The idea of continuous participation in programmes, or at least the provision of information on how else energy can be saved at home, led the proposed design to take a closed-loop shape, rather than the linearity originally employed. The separation of programmes, where one organization administers one programme and another body is in charge of a different programme, should be reconsidered. For example, the empirical evidence showed that educational programmes should be connected to more tangible programmes, such as those involving insulation. In this way, homeowners can be educated on how best to use the newly acquired measures and how/what else they can do to conserve energy. The energy conservation ideas can be extended beyond home and energy, and could incorporate for example water conservation or commuting to workplaces.

Lastly, the empirical evidence identified the most important programmes' key aspects: communication; measures; and funding. The framework therefore commences with those three aspects.

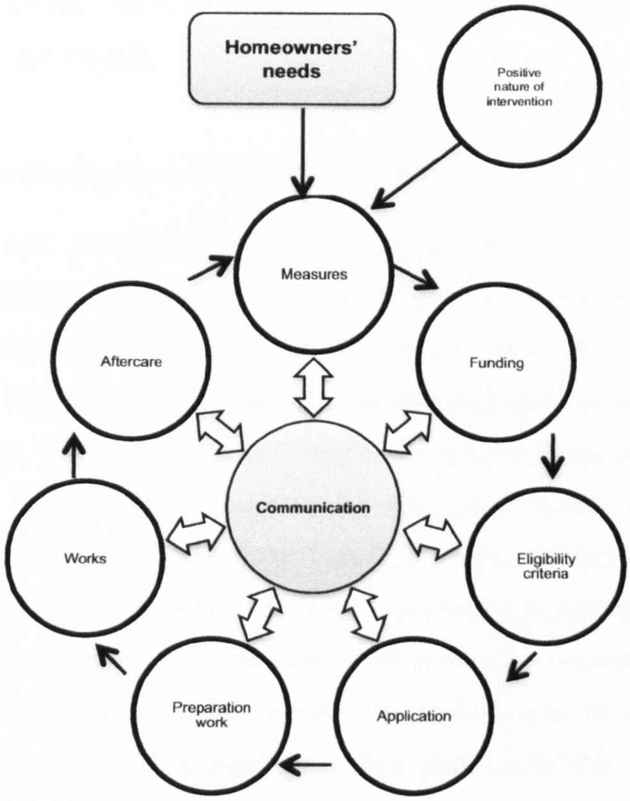


Figure 8.2: Proposed new theoretical framework for the design of home energy efficiency programmes

8.3 Proposed Changes in Energy Programmes' Design

It is suggested that the originally identified key aspects, with the exception of awareness raising (renamed communication) and application methods (renamed application), remain the same, but certain features of their design and content are changed. These changes should give each programme and its relevant key aspects enough flexibility to reflect homeowners' changing needs and requirements. The sections below outline how the substance of programme aspects could be adapted to address the limitations exposed in this and previous empirical research. 'Nature of intervention' was not empirically researched in this study because all programmes employ the same approach: positive intervention. Researchers have long suggested positive intervention to be the most appropriate method when trying to achieve behaviour change. The empirical evidence also suggests that homeowners were inclined to react and accept positive information. The new framework therefore supports the use of positive intervention. Figure 8.2 illustrates the positive nature of intervention as outside the loop because it remains constant and does not change with individual programmes.

8.3.1. Proposed Changes to Communication

Communication was seen by homeowners as the most important aspect of raising awareness of energy programmes, but was also a significant feature throughout participation. It is therefore important to achieve the correct level and form of communication. Figure 8.3 illustrates five areas that every communication strategy ought to consider: the administrative body; geographical spread; methods; timing; and information. Each energy programme should consider which organization is best suited to promote and administer it and how wide, geographically speaking, the awareness raising communication campaign should spread. Next, it is important to employ wide-ranging, but also relevant, methods that provide correct, up-to-date and pertinent information. Lastly, each programme should pay a great deal of attention to when each communication takes place and the type of information it should provide.

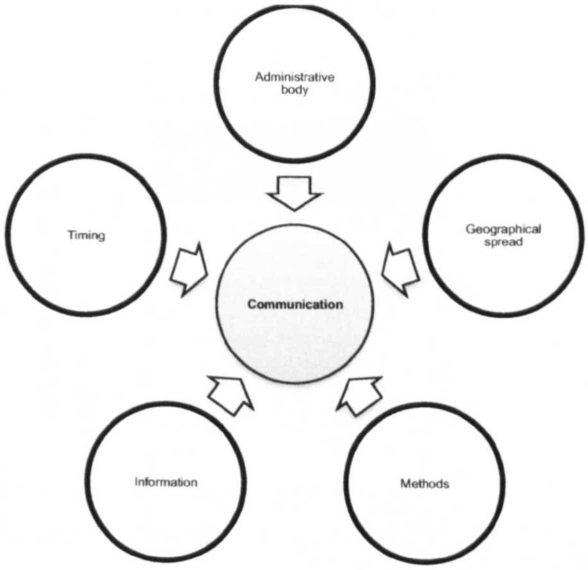


Figure 8.3: Features comprising the key aspect 'communication'

The homeowners were presented with five different organizations (Figure 8.4), out of which they selected the organization they believed would be most suited to administer the existing and any newly designed programmes. While 22 per cent of study participants did not mind which organization was put in charge of these programmes, 33 per cent prefer local councils and 16 per cent central government. The results showed that, as in previous studies (e.g. UK-GBC, 2008a), local councils remain the one type of organization with the greatest potential to encourage larger participation in energy programmes by providing locally relevant advice and knowledge.

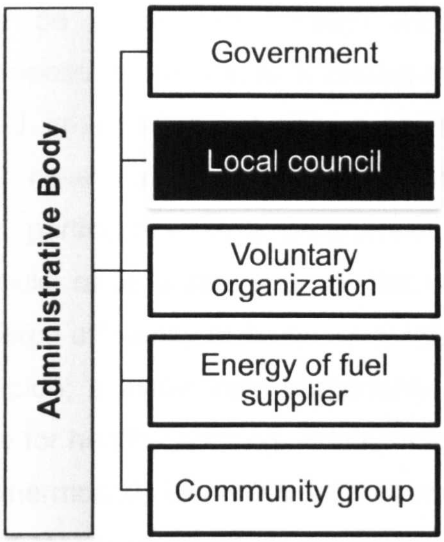


Figure 8.4: Organizations that could act as administrative body

Research also showed that the geographical spread of the programme might have an impact on participation. Thirty per cent of participants did not mind how big the programme should be, but 28 per cent would prefer a programme that is consistent across the entire UK. Furthermore, 31 per cent of respondents felt that they would respond to a local council's advertising campaign. The combined results therefore suggest that while the research participants would prefer to take part in a programme that is organized by the government and would therefore be identical across the country, they would like to see some local aspects given to the programme through the knowledge and influence of the local councils.

As Figure 8.5 illustrates, the geographical spread of a programme should therefore be UK-wide, but localized to reflect local needs and requirements.

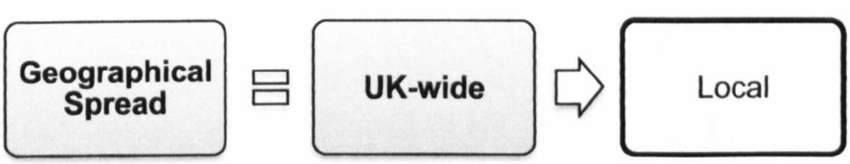


Figure 8.5: Geographical spread of an energy programme

As mentioned at the beginning of section 8.3.1, communication is important not only at the awareness raising stage but also throughout participation. Communication must therefore be considered through the lifetime of the programme. The homeowners propose that methods of raising awareness at UK-wide and local level should be varied, imaginative, but also comprehensive and continuous, and should always include clear messages explaining how the homeowner could benefit financially from participation in a programme (Figure 8.6). Initially, mass media advertising should raise awareness of the wider issue, using for example TV advertising. Energy efficiency at home as a cause could potentially benefit from the use of a champion; a well-known personality replicating for instance what Jamie Oliver has done for healthy cooking. Additionally, subtle energy efficiency behaviour (e.g. lowering thermostat, insulating loft) should be more readily incorporated into TV programmes readily watched by the general public. More importantly, however, the programmes should employ all available local media for advertising, using local images, which should build on the wider mass-media campaigns. The interviewed homeowners expressed a strong support for community learning and therefore suggested that communication should happen on a community-wide scale. The programmes should be promoted through a local one-stop-shops where information on all available programmes could be obtained. Additionally, homeowners felt that the use of a local show-house displaying all working technologies and other energy saving tips in a typical house, could increase awareness levels among residents. The localized awareness raising should be organized and coordinated by the local council, which was seen by 31 per cent of homeowners as the best possible organization for increasing participation numbers.

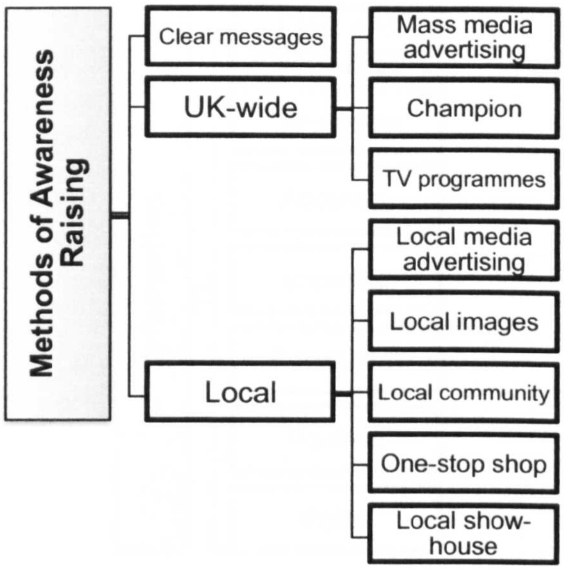


Figure 8.6: Methods of awareness raising

As already stated, communication between programme providers and participants must happen throughout participation, but perhaps more important than methods is the timing of information provided. Homeowners expressed the view that the type and quality of information is very important to them. Figure 8.7 lists many attributes, such as clear information without technical jargon, so that even a layperson could understand it. Up-to-date, accurate and impartial information goes some way to creating trust in the information provided. Consistency in information again is important for creating trust. In the provision of information, communicators should display positivity and politeness. Homeowners believed that information should be stripped of any blame and threats, and should take a positive approach. Some of the homeowners had negative experiences with some of the staff working for energy programmes. They therefore suggest that staff need to be better trained in customer service and must communicate with homeowners in a polite manner.

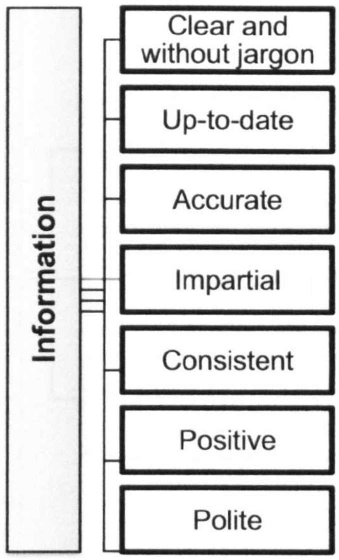


Figure 8.7: Type and quality of information

As Figure 8.8 shows, communication should initially take place at awareness raising stages when homeowners learn about energy programmes. Once participation commences, it is important to keep the homeowner continuously informed on the processes of participation (e.g. on how to apply or comply with eligibility criteria), but also on what is happening after an application is submitted and before any works are carried out (e.g. if there is a delay in processing the application, provide the homeowner with an update and the reason together with the anticipated date of completion). Lastly, homeowners felt that they would benefit from communication after their participation in one programme is completed. This way, they argued, a continuous improvement of energy efficiency in the home could be achieved.

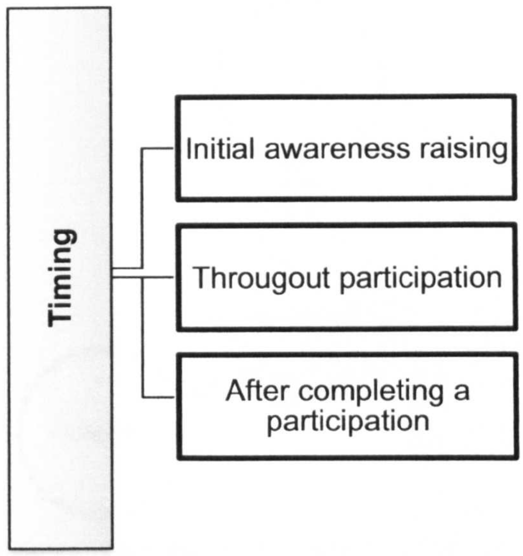


Figure 8.8: Timing of communication

8.3.2. Proposed Changes to Measures

Measures proved to be one of the most important features in a programme and getting them right might well encourage participation, providing that other features, such as funding, meet homeowners' expectations. Figure 8.9 illustrates the issues that, according to homeowners, contribute to whether or not a measure is successful: type; choice; and reliability. The type of measures relates predominantly to the technical aspects of a programme, for instance cavity wall insulation or evacuated tube solar panels. Choice of measures gives homeowners the option to decide between two or three measures delivering the same services, for example low energy light bulbs with bayonet or screw fittings. Reliability acts as a guarantee that products and services can be trusted and will deliver the desired outcome faultlessly.

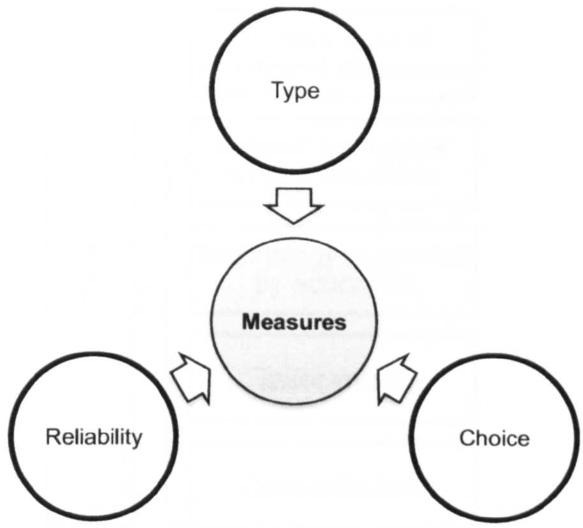


Figure 8.9: Features comprising the key aspect 'measures'

While it is important to ensure that the established or 'typical' measures such as cavity or loft insulation, are continuously supported under the current and newly developed programmes, it is even more important to develop programmes that would encompass new measures, such as solid wall insulation, and beyond the 'typical' type of measures, such as double glazing for old Victorian houses. The empirical evidence suggested that the programmes' artificial division should be reconsidered and that any technological programme should be supported by advice and education. Education should therefore form a type of measure in every programme. Homeowners also recommended tailor-made programmes following a house-specific survey with a prioritized list of actions together with a breakdown of costing and potential energy and money savings. Lastly, homeowners felt that all measures on offer must be cost-effective in order to increase participation. The type of measures is presented in Figure 8.10.

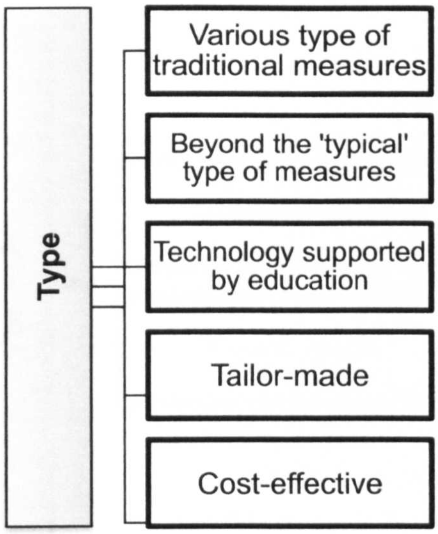


Figure 8.10: Type of measures

Having the option to choose between measures (Figure 8.11) is important to the participant. For example, homeowners should be able to choose which low energy light bulb they most need. The choice should include issues such as shape, type of fixing and wattage in the case of a light bulb, and material, fitting and fixing used in the case of other measures.

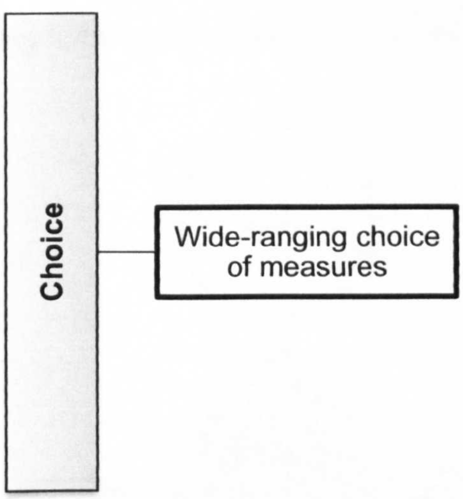


Figure 8.11: Choice of measures

Similarly important is the reliability (Figure 8.12) of the measures supported. The measures should be tried and tested with a long history of proven reliability and proven results in energy conservation.

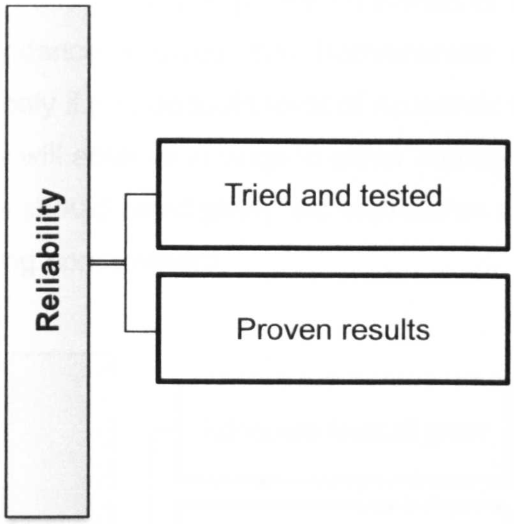


Figure 8.12: Reliability of measures

8.3.3. Proposed Changes to Funding

The last very significant key aspect is funding, and it is at this point that, when price is deemed reasonable, participation is secured. The empirical research showed that, besides financial incentives, the payment options offered and the trustworthiness of the organization offering financial support to the programme are important. The aspects affecting funding are represented in Figure 8.13.

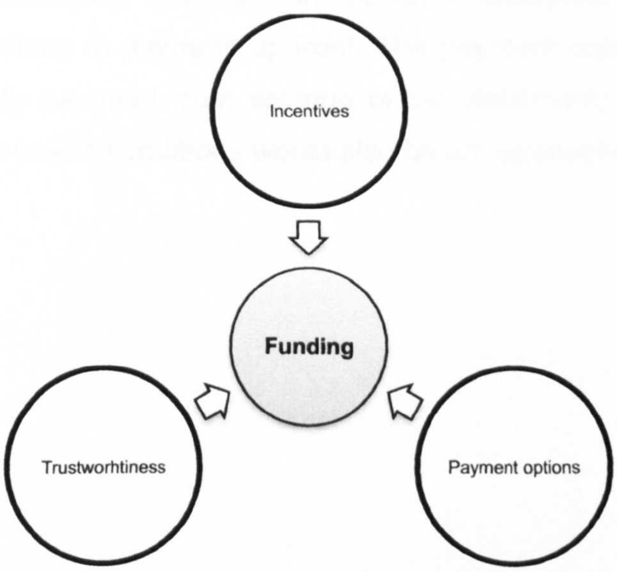


Figure 8.13: Features comprising the key aspect 'funding'

Incentives, in this case, are purely economic or closely related (Figure 8.14). The empirical evidence showed that homeowners are prepared to take part in a programme only if an adequate level of economic incentive is offered. The belief that homeowners will achieve savings in either money or fuel also supports participation. Programmes should avoid giving the impression of hidden costs, which might create distrust among homeowners.

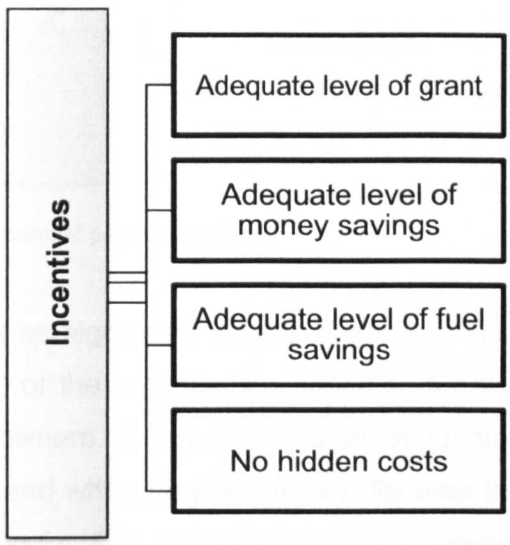


Figure 8.14: Economic incentives

Where homeowners' financial contribution is expected, they would prefer several payment options to payment up-front. The payment options, represented in Figure 8.15, include payment from savings or by instalments. Additionally, green loans offering favourable conditions would also be an agreeable alternative.

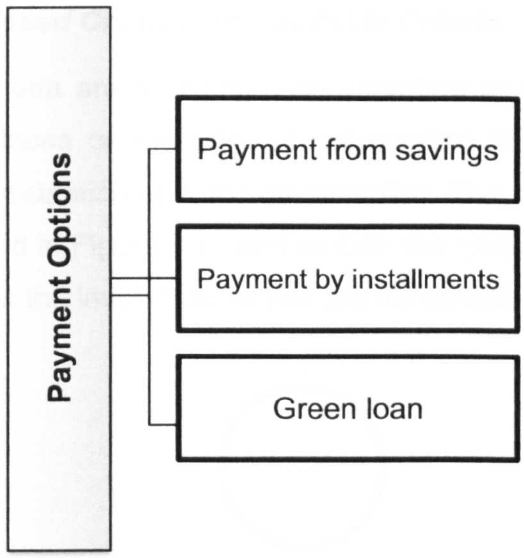


Figure 8.15: Financial payment options

Although not as significant as the above two issues, the matter of trustworthiness (Figure 8.16) of the organization providing funding for programmes is important to some homeowners. Often, the source of funding is not made clear to potential participants, and when they eventually discover that energy or fuel suppliers are the ones providing funding, it creates a certain degree of mistrust among some of them. The origins of funding should therefore be made clear from the outset, and reasons for providing such funding should be made available in order to prevent any doubts and erase any “what is in it for them?” type of questions.

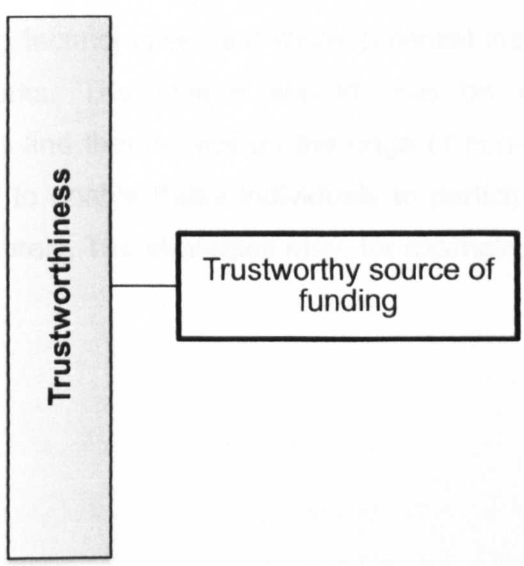


Figure 8.16: Trustworthiness organization providing funding

8.3.4. Proposed Changes to Eligibility Criteria

Eligibility criteria are a slightly less important feature, but for some homeowners, specifically those on the edge of not meeting them, it could mean the difference between participation and non-participation. The aspects affecting eligibility criteria are presented in Figure 8.17 and include the type of eligibility criteria and degree of complexity or the level of detail that are demanded from homeowners.

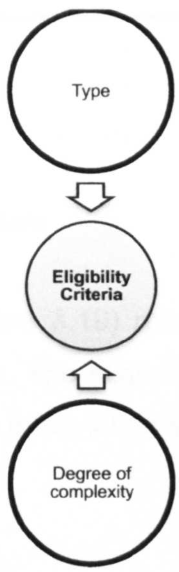


Figure 8.17: Features comprising the key aspect 'eligibility criteria'

The type of eligibility criteria (Figure 8.18) should include wide-ranging possibilities for compliance. For example, there should be many types of qualifying benefits or wide-ranging technologies, and many potential installers who are approved to carry out the works. The criteria should also be lenient. In other words, where homeowners find themselves on the edge of non-compliance, strategies should be put in place to enable these individuals to participate rather than allow them to be excluded entirely. The strategies may, for example, include a part-payment scheme.

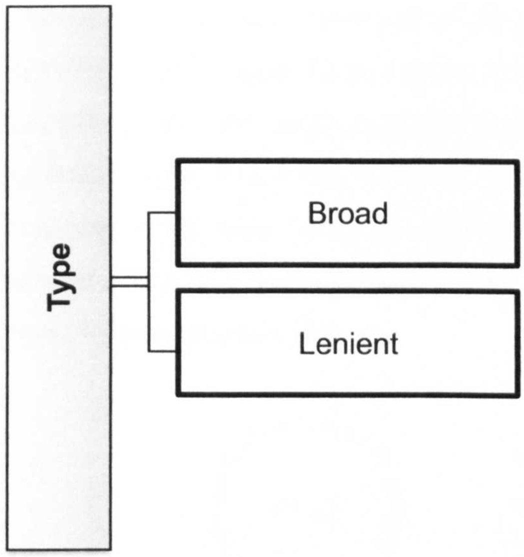


Figure 8.18: Type of eligibility criteria

Degree of complexity (Figure 8.19) refers to the amount and type of information required by eligibility criteria. The eligibility criteria should be easily proved, and any requirements for supporting information should be simple and kept to the minimum.

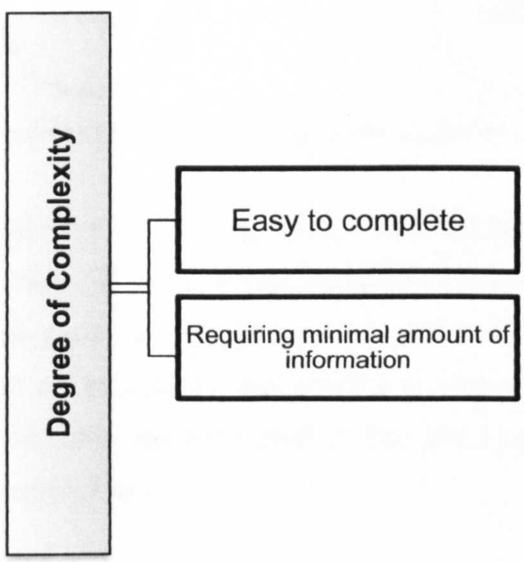


Figure 8.19: Degree of complexity of eligibility criteria

8.3.5. Proposed Changes to Application

When analysing existing energy programmes in Chapter Three, only the methods where application has taken place were examined. However, the research proved that issues beyond methods are important to consider. All the aspects affecting the application key stage are presented in Figure 8.20 and include methods by which application can take place, the amount and complexity of information required, and the continuous information exchange between programme provider and participant. It is important to remember that, although application is not a significant key aspect, any breakdown in efficiency in this stage could trigger possible unwillingness to participate in any future programmes.

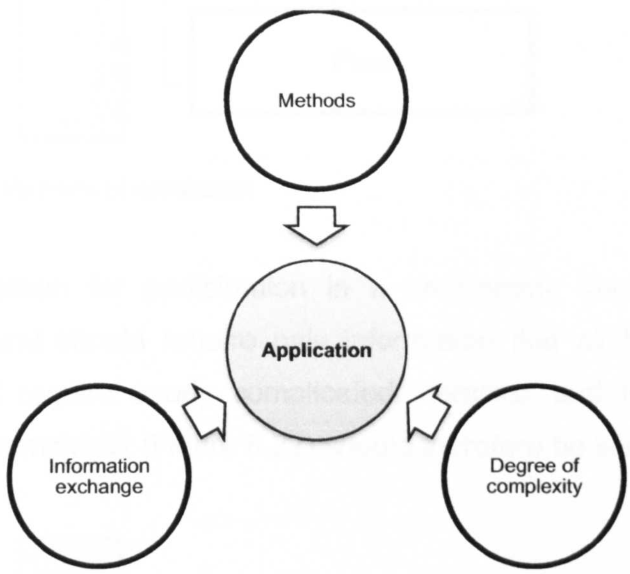


Figure 8.20: Features comprising the key aspect 'application'

Methods (Figure 8.21) for application should be as wide-ranging as possible to encourage and enable as many homeowners as possible to apply. Technological improvements must be employed to enable fast and easy application, but other options, such as in person, via telephone and post, must also be put in place to ensure that persons without access to the latest communication technology can take part in the programme.

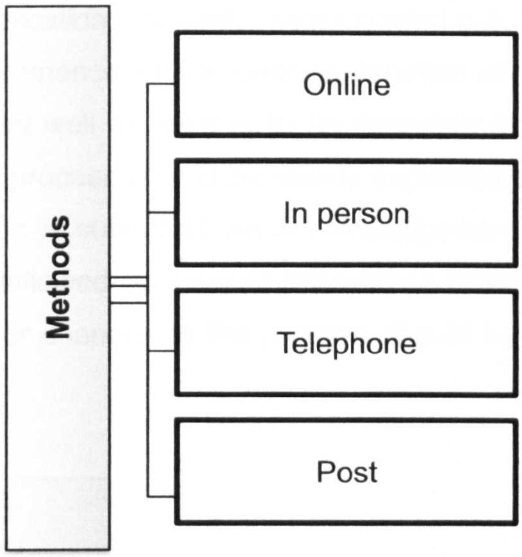


Figure 8.21: Methods of application

Any application for participation in a programme should be easy and fast to complete and should require only information that all homeowners could find. It should not require overly complicated, complex and technical information. The degree of complexity (Figure 8.22) should therefore be kept to a minimum.

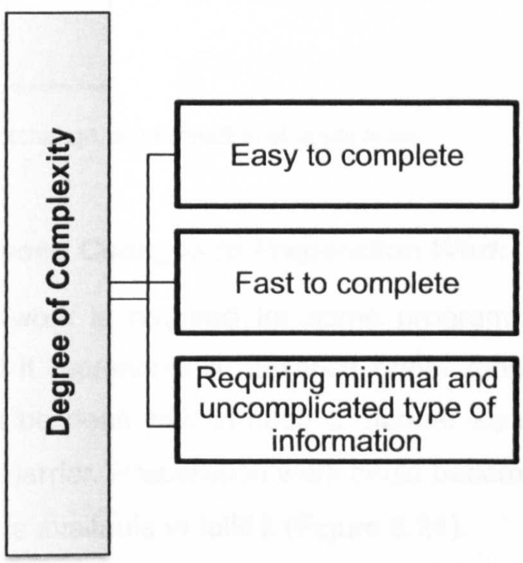


Figure 8.22: Degree of complexity of application

An issue causing participants in existing programmes to be frustrated is the lack of information exchange (Figure 8.23). This means that homeowners are often left uninformed about the progress of their application, and unexplained delays occur between application and works being carried out. The information exchange should therefore commence with a clear explanation of what is required from a potential participant, as well as what is to be expected from the programme provider. The participation process should be clearly explained detailing the entire process. Once an application is submitted, an acknowledgement of receipt should be sent to the participant, followed by detailed information of when the works should commence. Any delays or changes to the process should be communicated to the participant immediately.

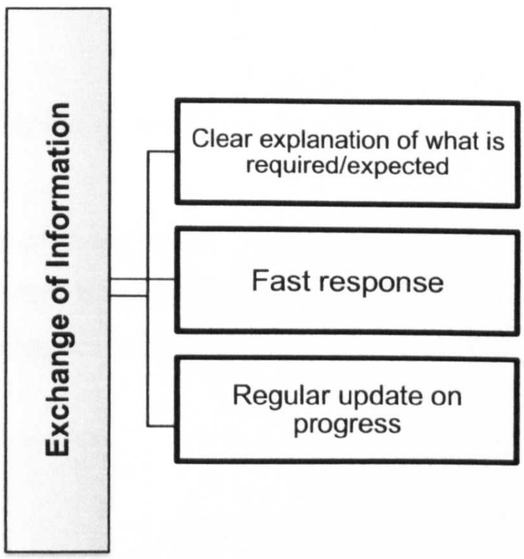


Figure 8.23: Exchange of information at application

8.3.6. Proposed Changes to Preparation Work

Preparation work is required for some programmes, and the empirical evidence showed that it represents a nuisance rather than a barrier for homeowners. This aspect must be dealt with in such a manner as to prevent preparation work from becoming a barrier. Preparation work could become a barrier when it is too complex and no help is available to fulfil it (Figure 8.24).

Figure 8.24: Features comprising the key aspect 'preparation work'

The degree of complexity (Figure 8.25) should be kept simple: any expected preparation work should be easy and fast to carry out and should not require any in-depth technological knowledge.

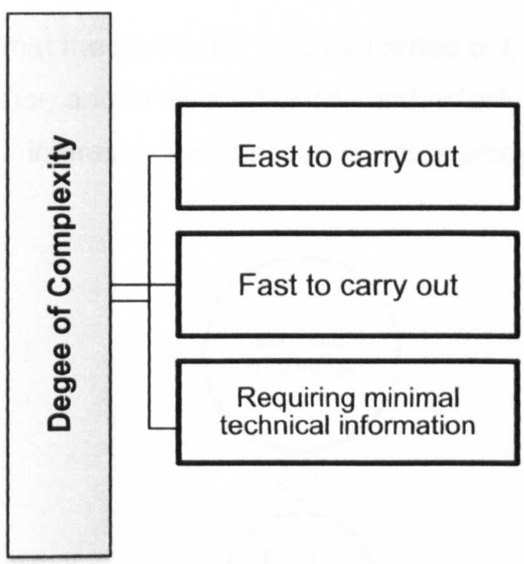


Figure 8.25: Degree of complexity of preparation work

The empirical evidence suggested that some homeowners were discouraged from participation by the fear of demanding preparation work, particularly in the form of hard physical labour connected with clearing of lofts and complicated tasks requiring overly technical information. Homeowners therefore suggested that energy programme providers should offer help with both tasks by working with local organizations offering help with clearing lofts and surveyors helping to source the necessary information (Figure 8.26).

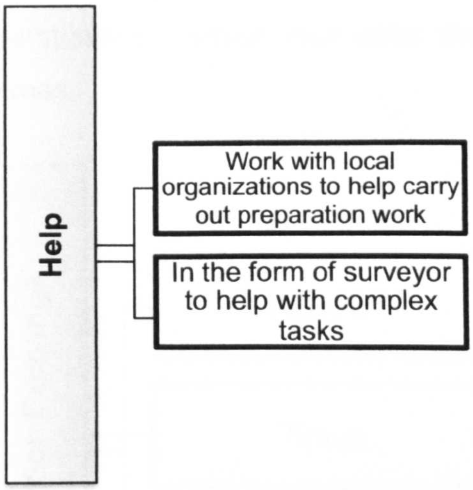


Figure 8.26: Help with preparation work

8.3.7. Proposed Changes to Works

At the point that the works are actually carried out, it is vital to provide information to the homeowner, and to work efficiently and reliably (Figure 8.27) in order to maintain homeowners' interest in participation in future programmes.

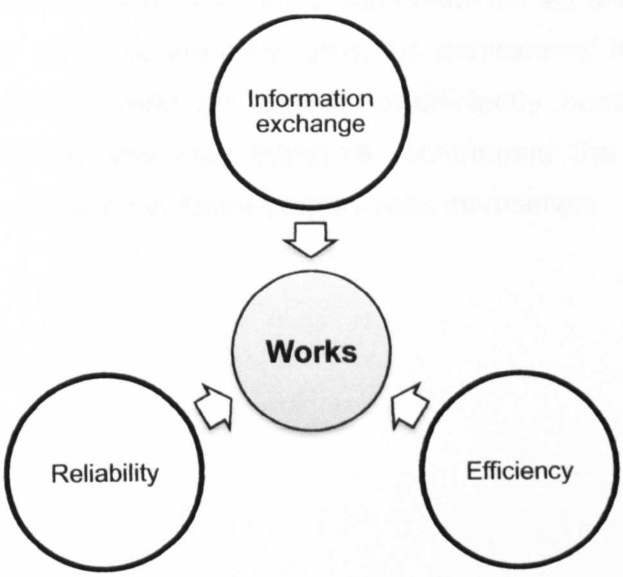


Figure 8.27: Features comprising the key aspect 'works'

The empirical evidence pointed to the importance of information exchange (Figure 8.28) throughout all key aspects including ‘works’. It is important to the homeowner to be regularly informed of any changes to the agreed work schedule. This exchange must happen before any changes occur causing delays in works. It is very important for the exchange to happen in a polite manner, therefore not causing any undue misunderstandings, which may deter the homeowner from participating in future programmes.

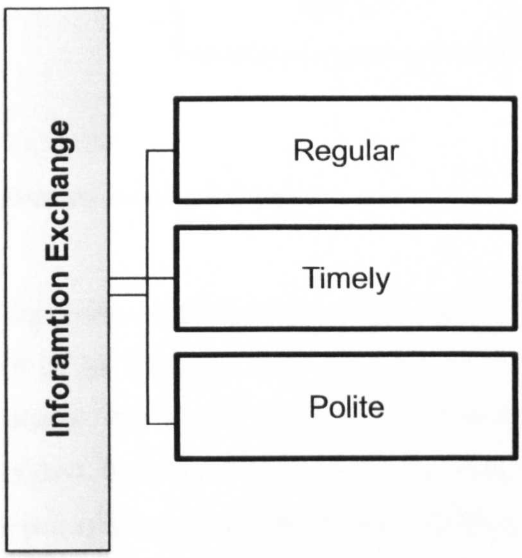


Figure 8.28: Information exchange at works key aspect

Any works carried out must happen efficiently (Figure 8.29), which means in a timely fashion, meeting any appointments and deadlines set and without any unnecessary delays. After all works are completed, the participants’ homes should be left clean and tidy. Again, if works are carried out efficiently, homeowners will be left with a good experience and may therefore recommend the programme to others or consider participation in future programmes themselves.

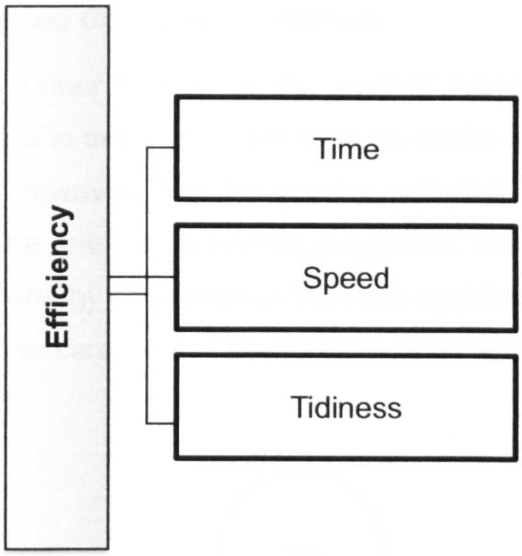


Figure 8.29: Efficiency of works key aspect

Lastly, any company employed to carry out the works must have a tracked and proven record of its reliability and experience in the selected field of work (Figure 8.30). Additionally, the workforce that is employed to carry out the tasks must be skilled and trained. By ensuring that works are carried out efficiently and reliably, the programmes will gain a good reputation, which may be passed on to neighbours, friends and family, and participation might be increased by word of mouth.

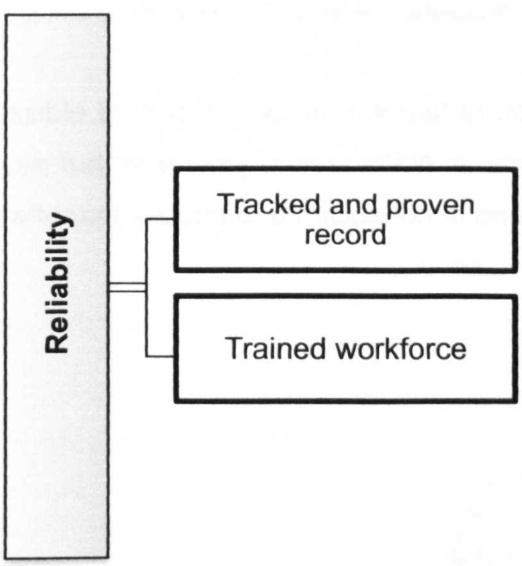


Figure 8.30: Reliability of organization used to carry out works

8.3.8. Proposed Changes to Aftercare

Aftercare is rather limited in the current programmes and consists of simple telephone calls to establish whether or not works were carried out satisfactorily. This key aspect, however, has far greater potential and should be exploited to the maximum. The empirical evidence suggested that at the point of aftercare, interest in additional energy conservation activities could be created. It is therefore beneficial to provide aftercare at the appropriate time with the correct type of information (Figure 8.31).

Figure 8.31: Features comprising the key aspect 'aftercare'

The best possible time to trigger an interest in additional programmes or activities leading to even further energy conservation is, according to the empirical evidence, immediately after completion of participation in one programme (Figure 8.32).

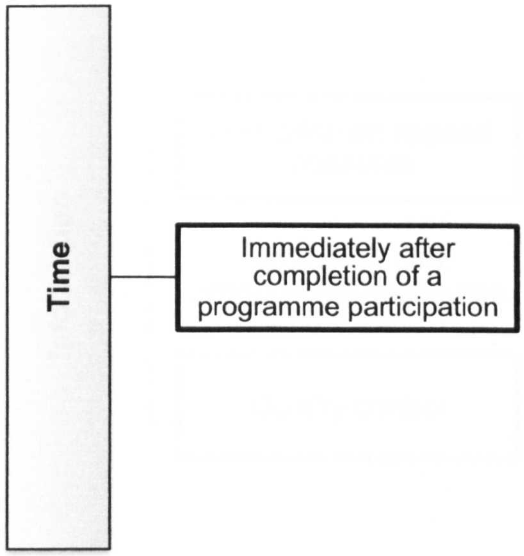


Figure 8.32: Time of provision of aftercare

The information (Figure 8.33) that aftercare provides should include education, explaining how to use the measures to their maximum effect – for example, teaching how to set the newly installed timer controlling central heating cycle so the maximum possible energy is conserved. Aftercare should also provide information on any new programmes or measures that the existing participant could benefit from. Lastly, aftercare should remain to collect information on the satisfaction of participants, but should extend the quality control not just to the workforce but also to the entire programme. In this way, continuous improvements can be made to improve the existing programmes and collate information that proves the reliability of the programme and the employed workforce, while providing 'lessons learned' for any design of future programmes.

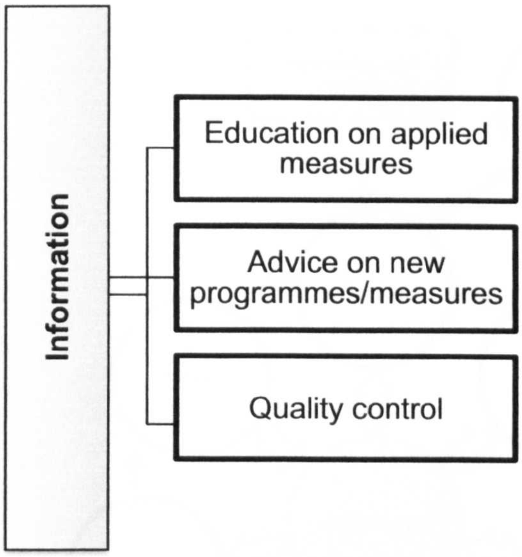


Figure 8.33: Type of information provided by the aftercare

8.4 Conclusions

Creating a programme that is successful in terms of participation must be, as the empirical evidence proved, much more considerate of homeowners' needs, requirements and opinions. The main emphasis in programmes' design should be placed on communication, measures and funding, but the other features should not, by any means, remain underdeveloped. The new framework is based on UK-wide promotion of energy conservation and wider environmental issues (e.g. climate change), but argues that programmes must be promoted much more locally, so that they are able to reflect local needs. It places, once again, local councils in the centre of the promotion of domestic energy conservation and suggests a number of aspects that should be considered when designing a programme.

The framework (introduced by Figure 8.2 and reproduced in Figure 8.34) offers flexibility to programmes' design, but acknowledges that not all suggestions are feasible and applicable to all studied programmes (for exceptions please see Chapter Nine, section 9.2). However, the main conclusion is that programmes must be treated much more as a project and would therefore benefit from a project management team with a dedicated customer relations manager who would ensure accurate and regular communication with potential and actual participants.

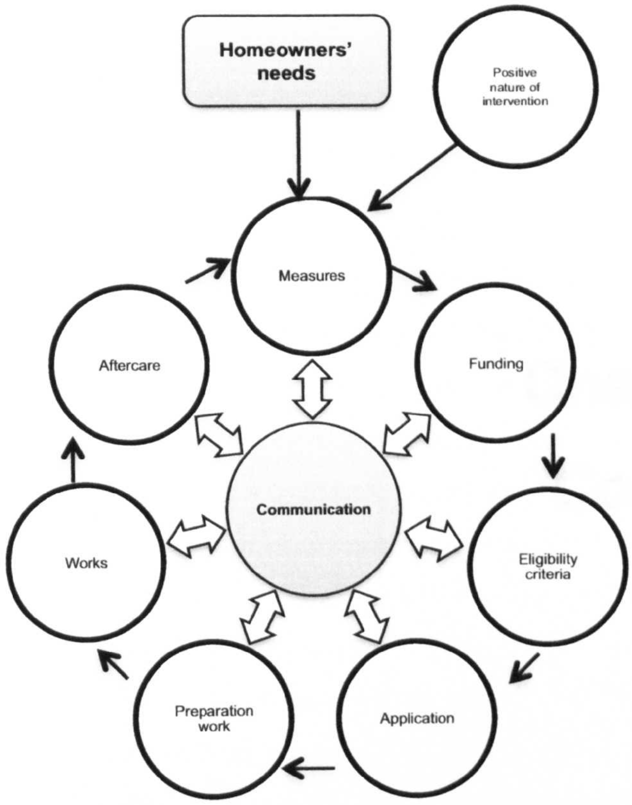


Figure 8.34: Proposed new theoretical framework for the design of home energy efficiency programmes

Chapter NINE

Conclusions

Conclusions

9.1 Introduction

The purpose of this research was to investigate, from the homeowners' perspective, the efficacy of programmes intended to improve energy efficiency in homes and to develop an evidence-based theoretical framework for devising programmes that are likely to be effective in terms of homeowners' participation based on data derived from the theoretical and empirical part of the study. Satisfying this aim is important because energy programmes form part of the UK's key strategy for carbon emission reduction and as yet very little is known about what the intended recipients, the homeowners, think about the existing programmes. This thesis argues, based on the empirical findings from questionnaires and interviews about 19 existing energy programmes, that the current approach to programmes' design does not encourage participation and thus supports the already established findings (e.g. UK-GBC, 2008a). It points out that whilst those homeowners that actually participated in a programme are generally satisfied, the majority of homeowners opted not to proceed from interest in a programme to participation. It further revealed that the cost of participation and the amount of financial savings that could be achieved by participation are still the greatest barrier and the most influential motivator for taking action, again supporting previously established conclusions (e.g. Stern, 2000, Kollmuss and Agyeman, 2002, Tonglet et al., 2004, Jackson, 2005, Lorenzoni et al., 2007, UK-GBC, 2008a, Ockwell et al., 2009). It also indicated that hindering and motivating factors are, with very small deviation, the same for all groups (e.g. male and female) of homeowners. Lastly, this research uncovered barriers and motivators specific for participation in energy programmes and used this newly gained knowledge to propose a much more flexible approach to programmes' design; an approach that stems from homeowners' needs rather than political objectives.

In this chapter the broad outcomes of the research are summarized, beginning with an overview of the limitations of this research that must be considered when interpreting the results of this study. The limitations led to the proposal of further research in section 9.2. Next, section 9.3, summarizes the main findings and their implications for the design of future energy programmes is presented. The chapter concludes with reflection on the overall conclusions that can be made from this research (section 9.4).

9.2 Limitations of the Research

The degree of generalization, which can be based on this research, is constrained by the fact that only three case study areas, all located in Hertfordshire, were studied. Nonetheless, as the results showed no significant variations between socio-demographic groups, the results should be applicable to other areas of the UK. However, further research to determine whether the findings are, in fact, applicable to the rest of the UK is necessary. Furthermore, 93 per cent of the population sample was from a white ethnic group. In order to determine whether the findings have relevance to other ethnic groups research could be carried out with specific ethnic groups in mind. The character of the population sample may mean that the selected homeowners are much more proactive and energy aware than the rest of UK homeowners and are therefore more willing to participate in programmes. Future research could focus on homeowners that have never expressed an interest in participation in energy programmes in order to identify whether this research's findings apply to both groups of homeowners.

As outlined in Chapter Four, section 4.7, gaining access to a sufficiently large number of homeowners interested in programmes that would provide a satisfactory amount of data for statistical analyses was difficult. For that reason the entire database (n=2,122) provided by the local Energy Efficiency Advice Centre was used. This however meant that the time lapsed between participation in a programme and taking part in the study exceed numbers of years (maximum of four years) for some homeowners. This in turn influenced the accuracy with which the homeowners recalled their experiences and likes and dislikes for individual programmes. Any subsequent research would benefit from keeping the time between participation and survey to the minimum.

A careful decision was made when selecting theories explaining behaviour determinants (for details see Chapter Two), which led to the exclusion of some factors that may be significant to behaviour change (e.g. the role of education, habits). Any subsequent research may want to expand on the behaviour determinants so as to identify whether any relationships between them and energy conservation exist. Furthermore, as this thesis focused on acquiring an understanding of homeowners' perceptions of the existing programmes and ideas for the design of future programmes, it did not evaluate the actual impacts (e.g. energy reduction through behaviour change) that participation in energy programmes might have had. Any future research may want to focus on this area in order to determine whether actual energy conservation behaviour occurred or whether a more energy efficient home can lead to even greater energy consumption through for example, the rebound effect (e.g. Greening, 2000, Brännland et al., 2007, Herring and Roy, 2007).

A distinction and debate of the difference between perceived and actual barriers is presented throughout this thesis. While the importance of perceived barriers is acknowledged, the barriers identified by homeowners are treated here as actual. There is, however, a significant difference between actual barriers, such as, the house cannot have cavity wall insulation because it has solid walls, and issues that homeowners think create a barrier. For example, where homeowners do not intend to get involved in a programme because they think, however incorrectly, that there is no solution suitable to their situation. Empirical research is needed to identify what needs to be put in place to diminish, or remove altogether, the perception of a barrier.

While the intended purpose of this thesis was to analyse a wide variety of programmes in order to achieve the broadest possible knowledge about what makes homeowners interested or disinterested in a programme, some programmes studied would perhaps benefit from their own research. For example, homeowners' perceptions of the energy labels on domestic appliances, as identified by this study, indicated that they are too complicated and homeowners therefore pay very little attention to them when purchasing a new appliance. The knowledge gained from the suggested research could lead to a better design of those labels, which in turn may lead to a greater use.

9.3 Implications of the Findings of Research for the Design of Future Home Energy Efficiency Programmes

In Chapter One the case that the current programmes forming the UK's strategy to reduce carbon dioxide are not reaching enough homeowners is presented. Throughout the research this finding is repeatedly strengthened; not only was it difficult to locate a sufficient number of homeowners that expressed an interest in programmes (Chapter Four, section 4.7), but the overall progression rate from an interest to participation in a programme was found by the empirical data to be low (39 per cent). Chapter Two presented a whole host of barriers and motivators to pro-environmentally friendly behaviour and the empirical part of this study identified those with the greatest significance to homeowners (see Table 9.1). Next, the theoretical argument that there are differences between various socio-demographic and socio-economic groups and the hindering and motivating factors affecting them was, to a large extent, disputed by the results of the empirical data analyses. The findings suggested that homeowners, regardless of their gender or age, are discouraged or encouraged to participate by the same factors, predominantly those related to finances. However, ethnicity could not be used as an intervening variable for this research because 93 per cent of homeowners declared themselves to be from a white ethnic group and the results could therefore not be generalized.

Table 9.1: The most significant barriers and motivators to participating in energy programmes

Barriers	**Motivators**
Lack of knowledge of the best solution	Offer of cost-effective measures
Finding reputable installer	Short payback period
Inappropriate images	Free measures
Inappropriate messages	Adequate level of grant
Infrequent advertising	Adequate fuel and money savings
Incorrect advice	Offer of good value for money
Lack of information on progress	Alternative payment options
Missed opportunity for further advice	Offer of good quality measures
Too expensive	Easy participation
Small grant	Provision of educational aspect
Small fuel or money savings	Tailor-made
Lack of incentives	Proven results
Hidden costs	Raising energy costs
Lack of time to compare and contrast the available programmes	Reduction of harmful emissions
Wasted time on missed appointments	Preservation of finite fuels
Measures not suitable	Preservation of environment for future generation
Compliance with eligibility criteria	Contributing to greater good
Not enough choice of measures	Replacing heating system
Hassle factor	Replacing appliances
Lack of trust in technology	Persuasive form of advertising
Lack of trust in programme provider	Good quality advice
Lack of trust in the organization providing the funding	Description of processes
Lack of trust in reliability of installers	Information on progress
	Provision of information on additional ways to save energy

The research has taken an innovative and comprehensive approach to comparing and contrasting the selected energy programmes through the use of programmes' key aspects (Chapter Three). Nine aspects shared by all programmes were identified: nature of intervention; awareness raising; measures; funding; eligibility criteria; application methods; preparation work; works; and aftercare. The examination of the selected programmes showed minimal differences between them, which added further difficulty for homeowners deciding in which programme they should take part. The empirical part of the research (Chapters Five, Six and Seven) identified three energy programmes' key aspects as the most significant to homeowners and the most in need of attention in future programmes' design: awareness raising renamed in Chapter Eight to communication; measures; and funding.

As can be seen from Figure 9.1 a two-way communication must happen at all stages of participation. Homeowners should be able to ask questions throughout their participation and should also be provided with regular, relevant and timely update on the participation's progress. The initial raising of awareness a programme ought to take advantage of all available marketing and advertising avenues promoting a clear idea of the possible financial, but also fuel savings that could be achieved by participation. Any environmental images and messages should be as local as possible in order for homeowners to be able to relate to them and to see how their individual actions could improve the environmental situation.

Any programme should offer various types (e.g. cavity wall insulation, but also solid wall insulation) and choices (e.g. various low energy light bulbs' fixings) of reliable measures. Programmes should offer not only economic incentives, such as, grants and subsidies that are considered by homeowners as adequate and from a trustworthy source (e.g. government), but also non-economic incentives. These may include for example, hassle-free and easy participation. Additionally, programmes could offer various methods of payment including instalments and payments from savings in order to overcome the initial up-front payment.

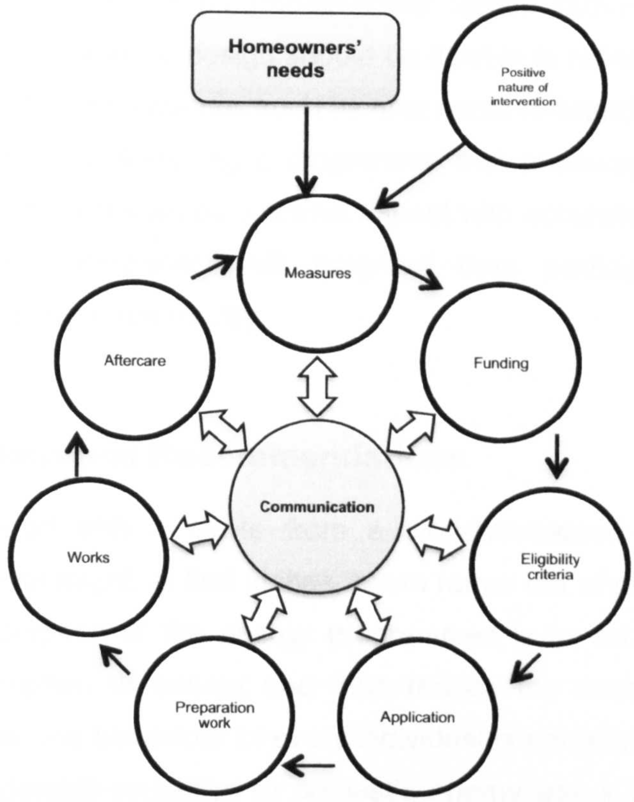


Figure 9.1: Proposed new theoretical framework for the design of home energy efficiency programmes

The empirical part of the study showed that homeowners, once they have made their decision to participate, were generally happy with the chosen programme. However, the sheer number of available but similar programmes was overwhelming for many of the study's participants. They suggested that it should be local councils who should be in charge of promotion of a reduced number of programmes that are initially UK-wide, organized by the government, but adjusted to local needs by the local authority. They further suggested that any educational campaign should be attached to the more technical programme. For example, after an installation of a new boiler the homeowner should be taught how to use the new equipment to maximise its potential. Homeowners also felt strongly about the wasted opportunities where programmes fail to utilize the existing interest in energy conservation. They suggest that programmes should offer information on other programmes/ways to conserve energy immediately after participation in one programme is completed. Lastly, the research data highlights the necessity for a programme to be based on homeowners' needs rather than political objectives. The programmes' design should be flexible to reflect those needs, but should avoid frequent changes such as new name re-branding or changes in eligibility criteria. By designing a programme that encourages a two-way conversation and provides an educational aspect with accurate information, it is possible that homeowners will progress from participation in one programme to another more readily.

9.4 Conclusions and Recommendations

The thesis opened with a quote from a world-renowned anthropologist Margaret Mead that might, at first glance, seem rather out of place. However, as the original purpose of the energy programmes is to cut down the UK domestic consumption of energy and thus reduce the associated carbon dioxide emissions, the behaviour of every individual is paramount. In order to achieve a considerable reduction in domestic energy use it is important to increase the number of homeowners willing to participate in energy programmes. The aim of this thesis was therefore to identify what homeowners think, to elicit their opinions and experiences with the existing programmes and to use this knowledge to implement the proposal of a new approach to programmes' design. The homeowners' reactions and responses to this research suggest that conserving energy is very important to them and that they see energy efficiency programmes as beneficial and perhaps central to their effort to reduce energy consumption at home. Another positive outcome of this research was the realization that the overwhelming majority of homeowners who actually participated in any of the studied programmes were very satisfied and had only minor issues with their chosen programmes. This would suggest that it is even more important to design programmes that give more consideration to homeowners' needs and thus encourage greater numbers of homeowners to participate. This research has undertaken the initial step in providing the evidence for programmes' design from homeowners' viewpoints.

The vast amount of new information obtained through quantitative and qualitative methods of research enabled the design of a flexible, closed-loop, empirically driven theoretical framework that could achieve greater efficacy of programmes in terms of participation numbers. Furthermore, not only does the framework encourage continuous improvements to energy efficiency of homes, it also lends itself to be used for the design of other types of interventions, for example, water conservation or switching from private car use to public transport. The intention of this research was to develop an approach that would encourage a much larger number of homeowners to participate and regardless of their motivations, attitudes and beliefs, to reduce the energy they use at home. Potentially this would play a vital role in the pursuit of a more sustainable future.

However, in order to achieve the desired shift toward a sustainable future policy, makers must become more aware of homeowners' needs and requirements and must learn to overcome any actual or perceived barriers. As mentioned earlier in the thesis, the newly developed 'Green Deal' and 'Feed-in Tariff' were not included in this study, but the findings presented here have a real relevance to both programmes. A number of recommendations for policy makers can be drawn: programmes must address homeowners' needs not policy objectives; making changes to programmes should be avoided and the number of available programmes reduced; programmes should be designed by the government, but administered locally, preferably by local authorities; two-way communication strategies should form the core of any programme; and strategies, such as using local suppliers, accurate and timely communication and transparency about funding organizations and available technology, should be put in place to overcome homeowners' barriers, perceived or actual.

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Appendices

Appendix A: Details of Home Energy Efficiency Programmes

Name	Purpose	Administered by
Warm Front	To provide free cavity and loft insulation and heating upgrade and installation to homeowners on qualifying means tested benefits.	Government funded, at the time of the research managed by Eaga.
Warmer Homes Greener Herts	To provide subsidised cavity and loft insulation to homeowners within Hertfordshire.	The local Energy Efficiency Advice Centre on the behalf of a number of Hertfordshire councils.
Cocoon	To provide subsidised cavity and loft insulation to homeowners and free insulation to the over 70s within UK.	The local Energy Efficiency Advice Centre on the behalf of a number of councils.
E.on Insulation Scheme	Discounted loft and cavity insulations offered to E.on customers.	E.on utility company
British Gas Insulation Scheme	Discounted loft and cavity insulations offered to predominantly British Gas customers.	British Gas utility company
Big Green Boiler Scheme	Retrospective discounts on A rated boilers to homeowners that already had their boiler installed by approved installer.	Themes Valley Energy Centre
Energy Labelling of White Goods	Following EU directive some domestic appliances display an efficiency certificate.	Manufacturers after rigorous testing
Councils' Low Energy Light Bulb Giveaway	Local councils are given free low energy light bulbs from utility companies participating in the EEC scheme – the conditions under which councils can distribute the light bulbs differ with each utility.	Local councils
Energy or Fuel Suppliers' Low Energy Light Bulb Giveaway	Utility companies participating in the EEC scheme send their customers free low energy light bulbs.	Utility companies
Are You Doing Your Bit?	UK's campaign to stimulate public action to protect the environment.	Government
Commit 20%	Commitment campaign encouraged people to save 20% of the energy they use every day, to help fight climate change.	Energy Saving Trust
Act on CO_2	Information campaign on how to reduce the use of fossil fuels, help manage the risks of climate change and ensure the energy needed to live is more secure.	On behalf of the government managed by the Energy Saving Trust.
Save Today Save Tomorrow	Information campaign on how to save the amount of gas and electricity in the home.	EDF Energy
Energy Savers Report	Originally part of the Home Information Pack. After changes the only element remaining. The report assessed the energy efficiency of a home awarding it a rating with suggestions for improvement.	Specially trained energy assessors

Name	Purpose	Administered by
Energy for Good	A programme ran in partnership with a number of Local Authorities. Each scheme was tailored to the area, the requirements of the local authority and the funding available.	National Energy Foundation
Home Energy Conservation Report	A self-administered home energy questionnaire, which was used to generate a report with improvements.	Local Energy Efficiency Advice Centre
Major Photovoltaic Demonstration Programme	Provision of grants for domestic photovoltaic installation.	On behalf of the government managed by the Building Research Establishment.
Clear Skies	Provision of grants for domestic renewable energy technology, other than photovoltaic, installation.	On behalf of the government managed by the Building Research Establishment.
Low Carbon Building Programme	Provision of grants for domestic renewable energy technology installation.	On behalf of the government managed first, by the Energy Saving Trust and second, by the Building Research Establishment.

Appendix B: Transcribes of Interviews with Programmes' Practitioners

Q1. How do you typically create a programme?

Councils:

Councils do not usually create their own programmes but rather are approached by other organizations such as Eaga promoting Warm Front to help and promote already existing programme.

Councils are also often approached by either EEAC or utility company to support and invest in a programme.

Utility companies:

We often react to new legislation or policy. Our programmes are really dictated by the government's objectives and we are often very restricted in what we can and cannot offer. Equally we are very strictly controlled in who we offer are programmes to. The most important socio-demographic strata is the elderly and disadvantaged due to the whole Fuel Poverty issue. Some objectives are contradictory and rather confusing for us to comply with.

Local Energy Efficiency Centre:

Typically, we would be approached by an organization (e.g. insulation company that has existing contracts with utility companies) that has some funding available and would like to use our local expertise and the ability to tap into local councils' funding.

We would concentrate on physical improvements of homes rather than advice, but we do provide advice on how to save energy at home. We provide Home Energy Conservation Report, which targets the areas of house that could be improved.

Q2. How do you decide what the programme should offer?

Councils:

We just promote an already existing programme, but use our own initiative when we are trying to raise awareness of climate change and other issues.

Utility companies:

It is governed, once again, by the government policy objectives. We have set calculations for measures that will achieve the greatest savings and we focus on them first. That is why cavity wall insulation is supported and solid wall insulation is not yet.

Energy Efficiency Advice Centre:

We work with organizations that already have a programme in mind.

Q3. How do you decide the funding/payments for a programme?

Councils:

We would not get normally involved in this part of the negotiations, but sometimes when we are able to add some funding to it ourselves the prices can be reduced substantially.

Utility companies:

For us it would be the policy objectives that we are working towards. Usually there are two sets of pricing: one for the disadvantaged and the other for the able-to-pay.

Local Energy Efficiency Centre:

We work with organizations that already have a programme in mind, but we can bring additional funding from the local authorities and can therefore to some degree dictate or at least alter the amount of funding.

Q3. How do you promote a programme?

Councils:

We use all means available to us: leaflets; community events; talks; press; direct mail; websites; co-operation with other organizations.

Utility companies:

We work through our installers and co-operate with local authorities. They are usually in charge of the promotion and management of the programme. If we have a programme that we administer we would use our website and direct mail to our customers, but we also use mass media.

Local Energy Efficiency Centre:

Usually we work with local councils and they would help us promote the programmes. Sometimes we would use local press and direct mail.

Q4. How do you typically judge whether or not a programme is successful?

Councils:

We do not collect information on how or if the programme was successful. We do not have the time or the expertise to analyse the data, if any data were made available to us.

Utility companies:

The programme is judged successful once the assigned quota of people is reached or once the available funding is spent. We do not contact homeowners to ask what they thought about the programme as we do not have the time to do so.

Local Energy Efficiency Centre:

We think of a programme to be a success when we spend the allocated money and reach a good number of people. We then calculate the amount of CO_2 saved and that is as much as we can do.

Appendix C: Questionnaire

A. QUESTIONS ABOUT YOUR BELIEFS, BARRIERS AND MOTIVATIONS TO PRESERVE THE ENVIRONMENT

A1. **Do you agree or disagree with the following statements about the environment?** (please circle one answer for each statement where 1 = strongly disagree and 5 = strongly agree)

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
Scientists will find a solution to climate change without people having to change their behaviour.	1	2	3	4	5
Climate change is beyond control – it's too late to do anything.	1	2	3	4	5
Humans are capable of finding ways to overcome the world's environmental problems.	1	2	3	4	5
It takes too much effort to do things that are environmentally friendly.	1	2	3	4	5
The effects of climate change are too far in the future to really worry me.	1	2	3	4	5
The environment is a low priority for me compared with a lot of other things in my life.	1	2	3	4	5
I don't believe my behaviour and everyday lifestyle contribute to climate change.	1	2	3	4	5
I find it hard to change my habits to be more environmentally friendly.	1	2	3	4	5

A2. How interested are you in improving the energy efficiency of your home? (please tick the appropriate answer)

- ☐ Very interested
- ☐ Quite interested
- ☐ Neither interested or disinterested
- ☐ Quite disinterested
- ☐ Very disinterested

A3. What are or would be the potential barriers to improving energy efficiency in your home? (please rank all in order where **1** = most important and **8** = least important)

	Rank
Too expensive	
Lack of knowledge of the best solutions	
Lack of time	
Difficulty finding a reputable installer	
Likely fuel savings too small	
Building not suitable	
Would spoil the character of the house	
Disruption caused by work	
Other (please specify) ________________	

A4. Under what circumstances have you or would you consider improving the energy efficiency of your home? (please rank all in order where **1** = most important and **9** = least important)

	Rank
Extending house	
Converting loft	
Moving into new property	
Replacing heating system	
Replacing appliances	
Rising energy costs	
Special offer / grant availability	
Friend's recommendation	
No special circumstances	
Other (please specify) ________________	

A5. Why are you interested in improving the energy efficiency of your home? (please rank all in order where **1** = most important and **5** = least important)

	Rank
To reduce the amount of harmful emissions	
To save money on fuel bills	
To preserve finite fuel resources	
To improve saleability of my home	
To comply with building regulations	
Other (please specify) ________________	

A6. Have you taken any measures to improve the energy efficiency of your home in the last two years? (please tick the appropriate answer)

- ☐ Yes
- ☐ No

A7. Which energy saving features does your home already have? (please tick all that apply)

- ☐ Loft insulation
- ☐ Cavity wall insulation
- ☐ Draught proofing
- ☐ Hot water tank insulation
- ☐ Double-glazing
- ☐ Energy saving lighting
- ☐ Energy saving boiler
- ☐ Renewable energy technology
  Please specify: ....
- ☐ Don't know
- ☐ Other (please specify)
  ....

A8. From the features that you do NOT yet have which would you consider installing? (please tick all that apply)

- ☐ Loft insulation
- ☐ Cavity wall insulation
- ☐ Draught proofing
- ☐ Hot water tank insulation
- ☐ Double-glazing
- ☐ Energy saving lighting
- ☐ Energy saving boiler
- ☐ Renewable energy technology
  Please specify: ....
- ☐ Other (please specify)
  ....
- ☐ Not applicable

B. QUESTIONS ABOUT EXISTING ENERGY-SAVING PROGRAMMES

B1. Which programme(s), if any, have you heard of? (please tick all that apply)

Insulation & Appliances
- ☐ Warm Front
- ☐ Warmer Homes Greener Herts
- ☐ Cocoon
- ☐ E.on Insulation Scheme
- ☐ British Gas Insulation Scheme
- ☐ Big Green Boiler scheme
- ☐ Energy Labelling of White Goods
- ☐ Council's low energy light bulb giveaway
- ☐ Energy or fuel suppliers' low energy light bulb giveaway
- ☐ None
- Other (please specify) ....

Advice & Education
- ☐ Are You Doing Your Bit?
- ☐ Commit 20%
- ☐ Act on CO_2
- ☐ Save Today Save Tomorrow
- ☐ Energy Savers Report
- ☐ Energy for Good
- ☐ Home Energy Conservation Report
- ☐ None
- Other (please specify) ....

Renewable Technology Grants
- ☐ Photovoltaic (PV) grant
- ☐ Clear Skies
- ☐ Low Carbon Building Programme
- ☐ None
- Other (please specify) ....

B2. Which programme(s), if any, have you participated in? (please tick all that apply)

Insulation & Appliances
- ☐ Warm Front
- ☐ Warmer Homes Greener Herts
- ☐ Cocoon
- ☐ E.on Insulation Scheme
- ☐ British Gas Insulation Scheme
- ☐ Big Green Boiler scheme
- ☐ Energy Labelling of White Goods
- ☐ Council's low energy light bulb giveaway
- ☐ Energy or fuel suppliers' low energy light bulb giveaway
- Other (please specify) ....

Advice & Education
- ☐ Are You Doing Your Bit?
- ☐ Commit 20%
- ☐ Act on CO_2
- ☐ Save Today Save Tomorrow
- ☐ Energy Savers Report
- ☐ Energy for Good
- ☐ Home Energy Conservation Report
- Other (please specify) ....

Renewable Technology Grants
- ☐ Photovoltaic (PV) grant
- ☐ Clear Skies
- ☐ Low Carbon Building Programme
- Other (please specify) ....

☐ None (please go to Q C1)

B3. What did you like most about the programme(s) you have taken part in? (please give as many examples as you like)

....
....
....

B4. What did you like least about the programme(s) you have taken part in? (please give as many examples as you like)

....
....
....

B5. How would you improve the programme(s)? (please give as many examples as you like)

....
....
....

B6. Would you be interested in taking part in another programme(s)?

☐ Yes ☐ No (please go to Q C1)

B6a. If YES which programme(s) would you be interested in? (please list as many as you like)

....
....
....

C. QUESTIONS ABOUT NEW ENERGY-SAVING PROGRAMMES

C1. What would discourage you from taking part in a programme? (please list as many as you like)

....
....
....

C2. What would motivate you to take part in a programme? (please list as many as you like)

....
....
....

C3. Which types of programme(s) would you most likely take part in? (please rank all in order, where **1** = most likely and **5** = least likely)

	Rank
Advice and education	
Insulation	
Appliances	
Renewable energy grant	
None	
Other (please specify) ________	

C4. What organization would you prefer to run the programme? (please rank all in order, where **1** = preferred option and **7** = least preferred)

	Rank
Central government	
Local council	
Voluntary organization	
Energy or fuel supplier	
Community group	
None	
Don't mind	
Other (please specify) ________	

C5. What size of programme would you prefer? (please rank all in order, where **1** = preferred option and **6** = least preferred)

	Rank
UK-wide	
Regional	
County-wide	
District-wide	
Community based	
Don't mind	
Other (please specify) ________	

C6. Which marketing strategies would encourage you to take part in a programme? (please rank all in order, where **1** = most likely and **7** = least likely)

	Rank
TV advertisement	
Internet advertisement	
Radio advertisement	
Direct mail-out	
Local council campaign	
Word of mouth	
Don't mind	
Other (please specify) ________	

C7. What would a programme need to offer / include to persuade you to take part? (please list as many as you like)

....
....
....
....
....
....

D. PERSONAL AND HOUSEHOLD INFORMATION

D1. Do you (or another household member) own or rent your home?

- ☐ Own outright or with a mortgage/loan
- ☐ Pay part rent/part mortgage
- ☐ Rent from housing assoc. or council
- ☐ Rent from a private landlord
- ☐ Other (please specify)

....

D2. What type of accommodation do you live in?

- ☐ Detached house/bungalow
- ☐ Semi-detached house/bungalow
- ☐ Terraced house/bungalow
- ☐ End of terrace house/bungalow
- ☐ Flat, maisonette or tenement
- ☐ Other (please specify) ....

D3. What age is your property?

☐ Pre 1900	☐ 1983 - 1990
☐ 1901 – 1929	☐ 1991 - 1995
☐ 1930 – 1949	☐ 1996 - 2002
☐ 1950 – 1966	☐ 2003 - 2006
☐ 1967 – 1975	☐ post 2007
☐ 1976 – 1982	☐ Don't know

D4. What is the main external wall type of your property?

- ☐ Stone
- ☐ Solid brick
- ☐ Cavity
- ☐ Timber frame
- ☐ Don't know
- ☐ Other (please specify) ....

D5. Is the loft / floor insulated?

Loft	Floor	
☐	☐	Yes
☐	☐	No
☐	☐	Partly
☐	☐	Not applicable
☐	☐	Don't know

D6. Are the walls insulated?

- ☐ Yes
- ☐ No
- ☐ Partly
- ☐ Not applicable
- ☐ Don't know

D7. What type of glazed windows do you have?

- ☐ Single
- ☐ Double
- ☐ Secondary
- ☐ Triple
- ☐ Other (please specify) ....

D8. What is the main heating system?

- ☐ Gas central heating
- ☐ Electric storage heaters
- ☐ Oil fired heating
- ☐ Other (please specify) ....

D9. What type of fuel is available in your area? (tick all that apply)

☐ Gas	☐ Oil
☐ Electric	Other ....

D10. Are you:

☐ Male ☐ Female

D11. In what year were you born?

....

D12. Which of the following best describes your and your partner's economic status?

Yours	Your Partner's
☐ Paid employment/self-employed	☐
☐ Unemployed/seeking work	☐
☐ Retired	☐
☐ Looking after family/home	☐
☐ Full time student	☐
☐ Long term sick/disabled	☐
☐ Other	☐

D13. What work do/did you do?

....

D14. What work does/did your partner do?

....

D15. To which of these groups do you consider you belong?

☐ White	☐ Mixed
☐ Black/Black British	☐ Chinese
☐ Asian/Asian British	☐ Other

For office use only.

Appendix D: Results from Questionnaire Analysis

The results presented here correspond firstly to the design of the questionnaire, followed by the more complex statistical tests described in Chapter Five. For ease of navigation a table of contents is provided.

Contents

1 Are financially motivated actions dependent on the belief in wider environmental issues?

Kendall's tau_b nonparametric correlations for environmental statements (Question A1) and interest in improving energy efficiency in the home (Question A2)

Correlations			
			Level of interest
Kendall's tau_b	Scientists will find a solution to climate change without people having to change their behaviour.	Correlation Coefficient	.104**
		Sig. (2-tailed)	.003
		N	703
	Climate change is beyond control – it's too late to do anything.	Correlation Coefficient	.124**
		Sig. (2-tailed)	.000
		N	706
	Humans are capable of finding ways to overcome the world's environmental problems.	Correlation Coefficient	.132**
		Sig. (2-tailed)	.000
		N	706
	It takes too much effort to do things that are environmentally friendly.	Correlation Coefficient	.225**
		Sig. (2-tailed)	.000
		N	707
	The effects of climate change are too far in the future to really worry me.	Correlation Coefficient	.283**
		Sig. (2-tailed)	.000
		N	707
	The environment is a low priority for me compared with a lot of other things in my life.	Correlation Coefficient	.287**
		Sig. (2-tailed)	.000
		N	705
	I don't believe my behaviour and	Correlation Coefficient	.232**

	everyday life contribute to climate change.	Sig. (2-tailed)	.000
		N	703
	I find it hard to change my habits to be more environmentally friendly.	Correlation Coefficient	.241**
		Sig. (2-tailed)	.000
		N	706
**. Correlation is significant at the 0.01 level (2-tailed).			

MANOVA test for environmental statements (Question A1) and interest in improving energy efficiency in the home (Question A2)

Between-Subjects Factors

		N
Interest	1	4
	2	3
	3	30
	4	236
	5	424

Descriptive Statistics

	Interest	Mean	Std. Deviation	N
Scientists will find a solution to climate change without people having to change their behaviour.	1	4.75	.500	4
	2	3.00	1.732	3
	3	3.47	1.224	30
	4	4.07	.901	236
	5	4.16	.984	424
	Total	4.09	.981	697
Climate change is beyond control – it's too late to do anything.	1	3.50	.577	4
	2	4.33	.577	3
	3	3.33	1.213	30
	4	3.67	.889	236
	5	3.84	.970	424
	Total	3.76	.958	697
Humans are capable of finding ways to overcome the world's environmental problems.	1	3.50	.577	4
	2	3.33	.577	3
	3	3.60	.814	30
	4	3.60	.924	236
	5	3.80	.947	424
	Total	3.72	.935	697
It takes too much effort to do things that are environmentally friendly.	1	4.00	.000	4
	2	5.00	.000	3
	3	3.87	.900	30
	4	3.94	.756	236
	5	4.30	.716	424
	Total	4.16	.757	697
The effects of climate change are too far in the future to really worry me.	1	4.50	.577	4
	2	4.67	.577	3
	3	3.53	1.106	30
	4	4.03	.806	236
	5	4.43	.813	424
	Total	4.26	.856	697
The environment is a low priority for me compared with a lot of other things in my life.	1	4.00	.816	4
	2	4.67	.577	3
	3	3.23	1.073	30
	4	3.47	.896	236
	5	4.04	.890	424
	Total	3.82	.945	697
I don't believe my behaviour and everyday life contribute to climate change.	1	4.50	.577	4
	2	2.67	1.155	3
	3	3.20	1.031	30
	4	3.67	.799	236
	5	4.01	.936	424
	Total	3.86	.922	697
I find it hard to change my habits to be more environmentally friendly.	1	3.75	.500	4
	2	4.00	.000	3

	3	3.27	.868	30
	4	3.43	.917	236
	5	3.89	.953	424
	Total	3.70	.961	697

Box's Test of Equality of Covariance Matrices[a]

Box's M	159.759
F	2.087
df1	72
df2	18549.248
Sig.	.000

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.
a. Design: Intercept + Interest

Multivariate Tests[c]

Effect		Value	F	Hypothesis df	Error df
Intercept	Pillai's Trace	.788	318.780[a]	8.000	685.000
	Wilks' Lambda	.212	318.780[a]	8.000	685.000
	Hotelling's Trace	3.723	318.780[a]	8.000	685.000
	Roy's Largest Root	3.723	318.780[a]	8.000	685.000
Interest	Pillai's Trace	.206	4.670	32.000	2752.000
	Wilks' Lambda	.804	4.822	32.000	2527.750
	Hotelling's Trace	.232	4.960	32.000	2734.000
	Roy's Largest Root	.164	14.085[b]	8.000	688.000

a. Exact statistic
b. The statistic is an upper bound on F that yields a lower bound on the significance level.
c. Design: Intercept + Interest

Multivariate Tests[c]

Effect		Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.000	.788
	Wilks' Lambda	.000	.788
	Hotelling's Trace	.000	.788
	Roy's Largest Root	.000	.788
Interest	Pillai's Trace	.000	.052
	Wilks' Lambda	.000	.053
	Hotelling's Trace	.000	.055
	Roy's Largest Root	.000	.141

c. Design: Intercept + Interest

Levene's Test of Equality of Error Variances[a]

	F	df1	df2	Sig.
Scientists will find a solution to climate change without people having to change their behavior.	3.329	4	692	.010
Climate change is beyond control – it's too late to do anything.	1.897	4	692	.109
Humans are capable of finding ways to overcome the world's environmental problems.	.733	4	692	.570
It takes too much effort to do things that are environmentally friendly.	4.590	4	692	.001
The effects of climate change are too far in the future to really worry me.	4.737	4	692	.001
The environment is a low priority for me compared with a lot of other things in my life.	3.424	4	692	.009
I don't believe my behaviour and everyday life contribute to climate change.	1.359	4	692	.247
I find it hard to change my habits to be more environmentally friendly.	2.919	4	692	.021

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.
a. Design: Intercept + Interest

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of	df	Mean Square	F	Sig.	Partial Eta Squar

		Squares					ed
Corrected Model	Scientists will find a solution to climate change without people having to change their behavior.	18.892[a]	4	4.723	5.022	.001	.028
	Climate change is beyond control – it's too late to do anything.	11.475[b]	4	2.869	3.161	.014	.018
	Humans are capable of finding ways to overcome the world's environmental problems.	7.218[c]	4	1.805	2.079	.082	.012
	It takes too much effort to do things that are environmentally friendly.	23.970[d]	4	5.992	11.067	.000	.060
	The effects of climate change are too far in the future to really worry me.	40.883[e]	4	10.221	15.059	.000	.080
	The environment is a low priority for me compared with a lot of other things in my life.	61.743[f]	4	15.436	19.070	.000	.099
	I don't believe my behaviour and everyday life contribute to climate change.	36.330[g]	4	9.083	11.318	.000	.061
	I find it hard to change my habits to be more environmentally friendly.	38.158[h]	4	9.540	10.912	.000	.059
Intercept	Scientists will find a solution to climate change without people having to change their behavior.	606.355	1	606.355	644.684	.000	.482
	Climate change is beyond control – it's too late to do anything.	560.148	1	560.148	617.295	.000	.471
	Humans are capable of finding ways to overcome the world's environmental problems.	510.468	1	510.468	587.971	.000	.459
	It takes too much effort to do things that are environmentally friendly.	715.074	1	715.074	1320.570	.000	.656
	The effects of climate change are too far in the future to really worry me.	718.156	1	718.156	1058.137	.000	.605
	The environment is a low priority for me compared with a lot of other things in my life.	604.915	1	604.915	747.347	.000	.519
	I don't believe my behaviour and everyday life contribute to climate change.	522.591	1	522.591	651.212	.000	.485
	I find it hard to change my habits to be more environmentally friendly.	539.165	1	539.165	616.740	.000	.471
Level of Interest	Scientists will find a solution to climate change without people having to change their behavior.	18.892	4	4.723	5.022	.001	.028
	Climate change is beyond control – it's too late to do anything.	11.475	4	2.869	3.161	.014	.018
	Humans are capable of finding ways to overcome the world's environmental problems.	7.218	4	1.805	2.079	.082	.012
	It takes too much effort to do things that are environmentally friendly.	23.970	4	5.992	11.067	.000	.060
	The effects of climate change are too far in the future to really worry me.	40.883	4	10.221	15.059	.000	.080
	The environment is a low priority for me compared with a lot of other things in my life.	61.743	4	15.436	19.070	.000	.099
	I don't believe my behaviour and everyday life contribute to climate change.	36.330	4	9.083	11.318	.000	.061
	I find it hard to change my habits to be more environmentally friendly.	38.158	4	9.540	10.912	.000	.059
Error	Scientists will find a solution to climate change without people	650.858	692	.941			

	having to change their behavior.						
	Climate change is beyond control – it's too late to do anything.	627.937	692	.907			
	Humans are capable of finding ways to overcome the world's environmental problems.	600.784	692	.868			
	It takes too much effort to do things that are environmentally friendly.	374.710	692	.541			
	The effects of climate change are too far in the future to really worry me.	469.659	692	.679			
	The environment is a low priority for me compared with a lot of other things in my life.	560.117	692	.809			
	I don't believe my behaviour and everyday life contribute to climate change.	555.323	692	.802			
	I find it hard to change my habits to be more environmentally friendly.	604.958	692	.874			
Total	Scientists will find a solution to climate change without people having to change their behavior.	12356.000	697				
	Climate change is beyond control – it's too late to do anything.	10518.000	697				
	Humans are capable of finding ways to overcome the world's environmental problems.	10262.000	697				
	It takes too much effort to do things that are environmentally friendly.	12473.000	697				
	The effects of climate change are too far in the future to really worry me.	13132.000	697				
	The environment is a low priority for me compared with a lot of other things in my life.	10781.000	697				
	I don't believe my behaviour and everyday life contribute to climate change.	10958.000	697				
	I find it hard to change my habits to be more environmentally friendly.	10208.000	697				
Corrected Total	Scientists will find a solution to climate change without people having to change their behavior.	669.750	696				
	Climate change is beyond control – it's too late to do anything.	639.412	696				
	Humans are capable of finding ways to overcome the world's environmental problems.	608.003	696				
	It takes too much effort to do things that are environmentally friendly.	398.680	696				
	The effects of climate change are too far in the future to really worry me.	510.542	696				
	The environment is a low priority for me compared with a lot of other things in my life.	621.859	696				
	I don't believe my behaviour and everyday life contribute to climate change.	591.653	696				
	I find it hard to change my habits to be more environmentally friendly.	643.116	696				
a. R Squared = .028 (Adjusted R Squared = .023)							
b. R Squared = .018 (Adjusted R Squared = .012)							
c. R Squared = .012 (Adjusted R Squared = .006)							
d. R Squared = .060 (Adjusted R Squared = .055)							

e. R Squared = .080 (Adjusted R Squared = .075)
f. R Squared = .099 (Adjusted R Squared = .094)
g. R Squared = .061 (Adjusted R Squared = .056)
h. R Squared = .059 (Adjusted R Squared = .054)

Estimated Marginal Means

Interest

Dependent Variable	Interest	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Scientists will find a solution to climate change without people having to change their behavior.	1	4.750	.485	3.798	5.702
	2	3.000	.560	1.901	4.099
	3	3.467	.177	3.119	3.814
	4	4.068	.063	3.944	4.192
	5	4.156	.047	4.063	4.248
Climate change is beyond control – it's too late to do anything.	1	3.500	.476	2.565	4.435
	2	4.333	.550	3.254	5.413
	3	3.333	.174	2.992	3.675
	4	3.674	.062	3.552	3.795
	5	3.844	.046	3.754	3.935
Humans are capable of finding ways to overcome the world's environmental problems.	1	3.500	.466	2.585	4.415
	2	3.333	.538	2.277	4.390
	3	3.600	.170	3.266	3.934
	4	3.602	.061	3.483	3.721
	5	3.802	.045	3.713	3.891
It takes too much effort to do things that are environmentally friendly.	1	4.000	.368	3.278	4.722
	2	5.000	.425	4.166	5.834
	3	3.867	.134	3.603	4.130
	4	3.945	.048	3.851	4.039
	5	4.300	.036	4.229	4.370
The effects of climate change are too far in the future to really worry me.	1	4.500	.412	3.691	5.309
	2	4.667	.476	3.733	5.601
	3	3.533	.150	3.238	3.829
	4	4.030	.054	3.924	4.135
	5	4.427	.040	4.348	4.505
The environment is a low priority for me compared with a lot of other things in my life.	1	4.000	.450	3.117	4.883
	2	4.667	.519	3.647	5.687
	3	3.233	.164	2.911	3.556
	4	3.475	.059	3.360	3.590
	5	4.042	.044	3.957	4.128
I don't believe my behaviour and everyday life contribute to climate change.	1	4.500	.448	3.621	5.379
	2	2.667	.517	1.651	3.682
	3	3.200	.164	2.879	3.521
	4	3.674	.058	3.559	3.788
	5	4.007	.044	3.922	4.092
I find it hard to change my habits to be more environmentally friendly.	1	3.750	.467	2.832	4.668
	2	4.000	.540	2.940	5.060
	3	3.267	.171	2.932	3.602
	4	3.428	.061	3.308	3.547
	5	3.887	.045	3.798	3.976

2 Do barriers, circumstances and motivators differ with gender and age?

Kendall's tau_b nonparametric correlations for barriers (Question A3) and gender (Question D10) and age (Question D11)

Correlations

			Gender	Age
Kendall's tau_b	Too expensive	Correlation Coefficient	-.041	-.049
		Sig. (2-tailed)	.251	.139
		N	680	658
	Lack of knowledge of the best solutions	Correlation Coefficient	-.094**	.035
		Sig. (2-tailed)	.006	.263
		N	670	649
	Lack of time	Correlation Coefficient	-.065	-.209**
		Sig. (2-tailed)	.057	.000

		N	656	636
	Difficulty finding reputable installer	Correlation Coefficient	-.078*	.094**
		Sig. (2-tailed)	.021	.003
		N	663	642
	Likely fuel savings too small	Correlation Coefficient	.148**	.128**
		Sig. (2-tailed)	.000	.000
		N	666	645
	Building not suitable	Correlation Coefficient	.007	.038
		Sig. (2-tailed)	.832	.237
		N	629	610
	Would spoil the character of the house	Correlation Coefficient	.026	.044
		Sig. (2-tailed)	.455	.184
		N	639	620
	Disruption caused by work caused by work	Correlation Coefficient	-.007	.047
		Sig. (2-tailed)	.841	.143
		N	653	634
**. Correlation is significant at the 0.01 level (2-tailed).				
*. Correlation is significant at the 0.05 level (2-tailed).				

MANOVA test for barriers (Question A3) and gender (Question D10)

Between-Subjects Factors

		Value Label	N
Gender	1	male	288
	2	female	317

Descriptive Statistics

	Gender	Mean	Std. Deviation	N
Too expensive	1 male	2.19	1.638	288
	2 female	2.13	1.726	317
	Total	2.16	1.684	605
Lack of knowledge of the best solutions	1 male	3.66	2.123	288
	2 female	3.17	1.873	317
	Total	3.40	2.009	605
Lack of time	1 male	5.30	2.112	288
	2 female	4.94	2.082	317
	Total	5.11	2.102	605
Difficulty finding reputable installer	1 male	4.22	1.862	288
	2 female	3.88	1.843	317
	Total	4.04	1.858	605
Likely fuel savings too small	1 male	3.60	1.805	288
	2 female	4.26	1.875	317
	Total	3.95	1.870	605
Building not suitable	1 male	5.09	2.307	288
	2 female	5.12	2.335	317
	Total	5.10	2.320	605
Would spoil the character of the house	1 male	6.31	1.770	288
	2 female	6.38	1.817	317
	Total	6.35	1.794	605
Disruption caused by work caused by work	1 male	5.81	1.984	288
	2 female	5.77	1.872	317
	Total	5.79	1.925	605

Box's Test of Equality of Covariance Matrices[a]

Box's M	64.753
F	1.774
df1	36
df2	1200696.547
Sig.	.003
Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.	
a. Design: Intercept + gender	

Multivariate Tests[b]

Effect	Value	F	Hypothesis	Error df	Sig.	Partial Eta

				df			Squared
Intercept	Pillai's Trace	.988	6394.415[a]	8.000	596.000	.000	.988
	Wilks' Lambda	.012	6394.415[a]	8.000	596.000	.000	.988
	Hotelling's Trace	85.831	6394.415[a]	8.000	596.000	.000	.988
	Roy's Largest Root	85.831	6394.415[a]	8.000	596.000	.000	.988
Gender	Pillai's Trace	.050	3.957[a]	8.000	596.000	.000	.050
	Wilks' Lambda	.950	3.957[a]	8.000	596.000	.000	.050
	Hotelling's Trace	.053	3.957[a]	8.000	596.000	.000	.050
	Roy's Largest Root	.053	3.957[a]	8.000	596.000	.000	.050
a.Exact statistic							
b. Design: Intercept + gender							

Levene's Test of Equality of Error Variances[a]

	F	df1	df2	Sig.
Too expensive	.432	1	603	.511
Lack of knowledge of the best solutions	6.351	1	603	.052
Lack of time	.484	1	603	.487
Difficulty finding reputable a installer	.458	1	603	.499
Likely fuel savings too small	.334	1	603	.564
Building not suitable	.000	1	603	.994
Would spoil the character of the house	.096	1	603	.757
Disruption caused by work caused by work	2.805	1	603	.094
Tests the null hypothesis that the error variance of the dependent variable is equal across groups.				
a. Design: Intercept + Gender				

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Too expensive	.633[a]	1	.633	.223	.637	.000
	Lack of knowledge of the best solutions	35.628[b]	1	35.628	8.945	.003	.015
	Lack of time	19.026[c]	1	19.026	4.330	.038	.007
	Difficulty finding reputable a installer	16.950[d]	1	16.950	4.942	.027	.008
	Likely fuel savings too small	66.654[e]	1	66.654	19.639	.000	.032
	Building not suitable	.135[f]	1	.135	.025	.874	.000
	Would spoil the character of the house	.868[g]	1	.868	.269	.604	.000
	Disruption caused by work caused by work	.237[h]	1	.237	.064	.801	.000
Intercept	Too expensive	2812.495	1	2812.495	990.935	.000	.622
	Lack of knowledge of the best solutions	7032.422	1	7032.422	1765.594	.000	.745
	Lack of time	15808.447	1	15808.447	3597.474	.000	.856
	Difficulty finding reputable a installer	9889.479	1	9889.479	2883.498	.000	.827
	Likely fuel savings too small	9320.446	1	9320.446	2746.202	.000	.820
	Building not suitable	15710.747	1	15710.747	2915.386	.000	.829
	Would spoil the character of the house	24315.631	1	24315.631	7548.002	.000	.926
	Disruption caused by work caused by work	20254.254	1	20254.254	5458.412	.000	.901
Gender	Too expensive	.633	1	.633	.223	.637	.000
	Lack of knowledge of the best solutions	35.628	1	35.628	8.945	.003	.015
	Lack of time	19.026	1	19.026	4.330	.038	.007
	Difficulty finding reputable a installer	16.950	1	16.950	4.942	.027	.008
	Likely fuel savings too small	66.654	1	66.654	19.639	.000	.032
	Building not suitable	.135	1	.135	.025	.874	.000

	Would spoil the character of the house	.868	1	.868	.269	.604	.000
	Disruption caused by work caused by work	.237	1	.237	.064	.801	.000
Error	Too expensive	1711.449	603	2.838			
	Lack of knowledge of the best solutions	2401.770	603	3.983			
	Lack of time	2649.774	603	4.394			
	Difficulty finding reputable a installer	2068.098	603	3.430			
	Likely fuel savings too small	2046.546	603	3.394			
	Building not suitable	3249.511	603	5.389			
	Would spoil the character of the house	1942.544	603	3.221			
	Disruption caused by work caused by work	2237.522	603	3.711			
Total	Too expensive	4527.000	605				
	Lack of knowledge of the best solutions	9438.000	605				
	Lack of time	18461.000	605				
	Difficulty finding reputable a installer	11958.000	605				
	Likely fuel savings too small	11531.000	605				
	Building not suitable	19001.000	605				
	Would spoil the character of the house	26329.000	605				
	Disruption caused by work caused by work	22532.000	605				
Corrected Total	Too expensive	1712.083	604				
	Lack of knowledge of the best solutions	2437.398	604				
	Lack of time	2668.800	604				
	Difficulty finding reputable a installer	2085.048	604				
	Likely fuel savings too small	2113.200	604				
	Building not suitable	3249.646	604				
	Would spoil the character of the house	1943.412	604				
	Disruption caused by work caused by work	2237.759	604				
a. R Squared = .000 (Adjusted R Squared = -.001)							
b. R Squared = .015 (Adjusted R Squared = .013)							
c. R Squared = .007 (Adjusted R Squared = .005)							
d. R Squared = .008 (Adjusted R Squared = .006)							
e. R Squared = .032 (Adjusted R Squared = .030)							
f. R Squared = .000 (Adjusted R Squared = -.002)							
g. R Squared = .000 (Adjusted R Squared = -.001)							
h. R Squared = .000 (Adjusted R Squared = -.002)							

Estimated Marginal Means

Gender					
Dependent Variable	Gender			95% Confidence Interval	
		Mean	Std. Error	Lower Bound	Upper Bound
Too expensive	1 male	2.191	.099	1.996	2.386
	2 female	2.126	.095	1.940	2.312
Lack of knowledge of the best solutions	1 male	3.656	.118	3.425	3.887
	2 female	3.170	.112	2.950	3.390
Lack of time	1 male	5.295	.124	5.053	5.538
	2 female	4.940	.118	4.709	5.171
Difficulty finding reputable a installer	1 male	4.215	.109	4.001	4.430
	2 female	3.880	.104	3.676	4.084
Likely fuel savings too small	1 male	3.597	.109	3.384	3.810
	2 female	4.262	.103	4.059	4.465
Building not suitable	1 male	5.087	.137	4.818	5.355

	2 female	5.117	.130	4.861	5.373
Would spoil the character of the house	1 male	6.309	.106	6.101	6.517
	2 female	6.385	.101	6.187	6.583
Disruption caused by work caused by work	1 male	5.813	.114	5.590	6.035
	2 female	5.773	.108	5.560	5.985

MANOVA test for barriers (Question A3) and age (Question D11)

Between-Subjects Factors

		Value Label	N
Age (Binned)	1	Over 70	141
	2	Between 69-57	131
	3	Between 42-46	168
	4	41 or under	147

Descriptive Statistics

	Age (Binned)	Mean	Std. Deviation	N
Too expensive	Over 70	2.32	1.713	141
	Between 69-57	2.16	1.663	131
	Between 42-46	2.16	1.752	168
	41 or under	1.98	1.559	147
	Total	2.15	1.676	587
Lack of knowledge of the best solutions	Over 70	3.19	1.916	141
	Between 69-57	3.49	2.017	131
	Between 42-46	3.62	2.099	168
	41 or under	3.29	1.951	147
	Total	3.40	2.003	587
Lack of time	Over 70	5.99	1.882	141
	Between 69-57	5.31	2.208	131
	Between 42-46	4.93	1.943	168
	41 or under	4.37	2.104	147
	Total	5.13	2.108	587
Difficulty finding a reputable installer	Over 70	3.74	1.786	141
	Between 69-57	3.99	1.752	131
	Between 42-46	4.14	1.994	168
	41 or under	4.29	1.791	147
	Total	4.05	1.848	587
Likely fuel savings too small	Over 70	3.43	1.708	141
	Between 69-57	4.14	1.826	131
	Between 42-46	3.92	1.862	168
	41 or under	4.33	1.970	147
	Total	3.95	1.871	587
Building not suitable	Over 70	5.11	2.372	141
	Between 69-57	4.86	2.408	131
	Between 42-46	4.92	2.400	168
	41 or under	5.43	2.107	147
	Total	5.08	2.329	587
Would spoil the character of the house	Over 70	6.19	1.760	141
	Between 69-57	6.53	1.742	131
	Between 42-46	6.17	1.982	168
	41 or under	6.57	1.622	147
	Total	6.36	1.795	587
Disruption caused by work caused by work	Over 70	5.82	1.969	141
	Between 69-57	5.56	1.958	131
	Between 42-46	5.82	2.022	168
	41 or under	5.98	1.714	147
	Total	5.80	1.922	587

Box's Test of Equality of Covariance Matrices[a]

Box's M	196.102
F	1.772
df1	108
df2	716237.085
Sig.	.000

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept + Age groups

Multivariate Tests[c]							
Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.989	6260.525[a]	8.000	576.000	.000	.989
	Wilks' Lambda	.011	6260.525[a]	8.000	576.000	.000	.989
	Hotelling's Trace	86.952	6260.525[a]	8.000	576.000	.000	.989
	Roy's Largest Root	86.952	6260.525[a]	8.000	576.000	.000	.989
Age groups	Pillai's Trace	.158	4.018	24.000	1734.000	.000	.053
	Wilks' Lambda	.846	4.127	24.000	1671.176	.000	.054
	Hotelling's Trace	.177	4.232	24.000	1724.000	.000	.056
	Roy's Largest Root	.144	10.415[b]	8.000	578.000	.000	.126
a. Exact statistic							
b. The statistic is an upper bound on F that yields a lower bound on the significance level.							
c. Design: Intercept + Age groups							

Levene's Test of Equality of Error Variances[a]				
	F	df1	df2	Sig.
Too expensive	1.923	3	583	.125
Lack of knowledge of the best solutions	1.423	3	583	.235
Lack of time	2.288	3	583	.078
Difficulty finding a reputable installer	3.108	3	583	.026
Likely fuel savings too small	1.606	3	583	.187
Building not suitable	3.594	3	583	.014
Would spoil the character of the house	3.621	3	583	.013
Disruption caused by work	3.197	3	583	.023
Tests the null hypothesis that the error variance of the dependent variable is equal across groups.				
a. Design: Intercept + age				

Tests of Between-Subjects Effects							
Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Too expensive	8.330[a]	3	2.777	.988	.398	.005
	Lack of knowledge of the best solutions	17.130[b]	3	5.710	1.426	.234	.007
	Lack of time	197.701[c]	3	65.900	15.965	.000	.076
	Difficulty in finding a reputable installer	23.493[d]	3	7.831	2.308	.076	.012
	Likely fuel savings too small	64.413[e]	3	21.471	6.299	.000	.031
	Building not suitable	28.312[f]	3	9.437	1.746	.156	.009
	Would spoil the character of the house	20.106[g]	3	6.702	2.091	.100	.011
	Disruption caused by work	12.607[h]	3	4.202	1.138	.333	.006
Intercept	Too expensive	2703.707	1	2703.707	962.384	.000	.623
	Lack of knowledge of the best solutions	6715.460	1	6715.460	1677.296	.000	.742
	Lack of time	15441.753	1	15441.753	3740.991	.000	.865
	Difficulty in finding a reputable installer	9510.417	1	9510.417	2803.016	.000	.828
	Likely fuel savings too small	9091.186	1	9091.186	2667.211	.000	.821
	Building not suitable	15025.324	1	15025.324	2780.061	.000	.827
	Would spoil the character of the house	23591.901	1	23591.901	7361.104	.000	.927
	Disruption caused by work	19553.853	1	19553.853	5296.194	.000	.901
Age groups	Too expensive	8.330	3	2.777	.988	.398	.005
	Lack of knowledge of the best solutions	17.130	3	5.710	1.426	.234	.007
	Lack of time	197.701	3	65.900	15.965	.000	.076

	Difficulty in finding a reputable installer	23.493	3	7.831	2.308	.076	.012
	Likely fuel savings too small	64.413	3	21.471	6.299	.000	.031
	Building not suitable	28.312	3	9.437	1.746	.156	.009
	Would spoil the character of the house	20.106	3	6.702	2.091	.100	.011
	Disruption caused by work	12.607	3	4.202	1.138	.333	.006
Error	Too expensive	1637.871	583	2.809			
	Lack of knowledge of the best solutions	2334.182	583	4.004			
	Lack of time	2406.459	583	4.128			
	Difficulty in finding a reputable installer	1978.074	583	3.393			
	Likely fuel savings too small	1987.155	583	3.408			
	Building not suitable	3150.925	583	5.405			
	Would spoil the character of the house	1868.480	583	3.205			
	Disruption caused by work	2152.470	583	3.692			
Total	Too expensive	4368.000	587				
	Lack of knowledge of the best solutions	9152.000	587				
	Lack of time	18049.000	587				
	Difficulty in finding a reputable installer	11627.000	587				
	Likely fuel savings too small	11213.000	587				
	Building not suitable	18328.000	587				
	Would spoil the character of the house	25603.000	587				
	Disruption caused by work	21928.000	587				
Corrected Total	Too expensive	1646.201	586				
	Lack of knowledge of the best solutions	2351.312	586				
	Lack of time	2604.160	586				
	Difficulty in finding a reputable installer	2001.567	586				
	Likely fuel savings too small	2051.567	586				
	Building not suitable	3179.237	586				
	Would spoil the character of the house	1888.586	586				
	Disruption caused by work	2165.077	586				

a. R Squared = .005 (Adjusted R Squared = .000)
b. R Squared = .007 (Adjusted R Squared = .002)
c. R Squared = .076 (Adjusted R Squared = .071)
d. R Squared = .012 (Adjusted R Squared = .007)
e. R Squared = .031 (Adjusted R Squared = .026)
f. R Squared = .009 (Adjusted R Squared = .004)
g. R Squared = .011 (Adjusted R Squared = .006)
h. R Squared = .006 (Adjusted R Squared = .001)

Estimated Marginal Means

Age (Binned)

Dependent Variable	Age (Binned)	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Too expensive	1 Over 70	2.319	.141	2.042	2.596
	2 Between 57-69	2.160	.146	1.873	2.448
	3 Between 42-56	2.161	.129	1.907	2.415
	4 41 or under	1.980	.138	1.708	2.251
Lack of knowledge of the best solutions	1 Over 70	3.191	.169	2.861	3.522
	2 Between 57-69	3.489	.175	3.145	3.832
	3 Between 42-56	3.619	.154	3.316	3.922
	4 41 or under	3.286	.165	2.962	3.610
Lack of time	1 Over 70	5.986	.171	5.650	6.322
	2 Between 57-69	5.305	.178	4.957	5.654
	3 Between 42-56	4.935	.157	4.627	5.242

	4 41 or under	4.374	.168	4.045	4.703
Difficulty in finding a reputable installer	1 Over 70	3.745	.155	3.440	4.049
	2 Between 57-69	3.992	.161	3.676	4.308
	3 Between 42-56	4.137	.142	3.858	4.416
	4 41 or under	4.293	.152	3.994	4.591
Likely fuel savings too small	1 Over 70	3.426	.155	3.120	3.731
	2 Between 57-69	4.137	.161	3.821	4.454
	3 Between 42-56	3.917	.142	3.637	4.196
	4 41 or under	4.327	.152	4.027	4.626
Building not suitable	1 Over 70	5.106	.196	4.722	5.491
	2 Between 57-69	4.863	.203	4.464	5.262
	3 Between 42-56	4.923	.179	4.570	5.275
	4 41 or under	5.429	.192	5.052	5.805
Would spoil the character of the house	1 Over 70	6.191	.151	5.895	6.488
	2 Between 57-69	6.527	.156	6.220	6.834
	3 Between 42-56	6.173	.138	5.901	6.444
	4 41 or under	6.571	.148	6.281	6.861
Disruption caused by work	1 Over 70	5.823	.162	5.505	6.141
	2 Between 57-69	5.557	.168	5.228	5.887
	3 Between 42-56	5.821	.148	5.530	6.113
	4 41 or under	5.980	.158	5.668	6.291

Kendall's tau_b nonparametric correlations for circumstances (Question A4) and gender (Question D10) and age (Question D11)

Correlations				
			Gender	Age (Binned)
Kendall's tau_b	Extending house	Correlation Coefficient	.060	-.067*
		Sig. (2-tailed)	.088	.039
		N	604	587
	Converting loft	Correlation Coefficient	.037	-.055
		Sig. (2-tailed)	.289	.087
		N	615	596
	Moving into new property	Correlation Coefficient	-.033	-.118**
		Sig. (2-tailed)	.350	.000
		N	620	600
	Replacing heating system	Correlation Coefficient	.029	.081*
		Sig. (2-tailed)	.407	.011
		N	651	631
	Replacing appliances	Correlation Coefficient	-.030	.023
		Sig. (2-tailed)	.391	.466
		N	647	628
	Rising energy costs	Correlation Coefficient	.026	.053
		Sig. (2-tailed)	.445	.099
		N	668	647
	Special offer/grant availability	Correlation Coefficient	-.028	.030
		Sig. (2-tailed)	.414	.341
		N	665	644
	Friend's recommendation	Correlation Coefficient	-.047	.039
		Sig. (2-tailed)	.190	.244
		N	612	594
	No special circumstances	Correlation Coefficient	.012	.072*
		Sig. (2-tailed)	.766	.050
		N	537	522
*. Correlation is significant at the 0.05 level (2-tailed).				
**. Correlation is significant at the 0.01 level (2-tailed).				

MANOVA test for circumstances (Question A4) and gender (Question D10)

Between-Subjects Factors			
		Value Label	N
Gender	1	male	242
	2	female	256

Descriptive Statistics				
	Gender	Mean	Std. Deviation	N

Extending house	1 male	5.42	2.440	242
	2 female	5.76	2.494	256
	Total	5.59	2.472	498
Converting loft	1 male	5.34	2.419	242
	2 female	5.52	2.294	256
	Total	5.43	2.355	498
Moving into new property	1 male	5.89	2.410	242
	2 female	5.75	2.442	256
	Total	5.82	2.425	498
Replacing heating system	1 male	3.46	1.935	242
	2 female	3.72	2.120	256
	Total	3.59	2.034	498
Replacing appliances	1 male	3.93	2.001	242
	2 female	3.93	2.037	256
	Total	3.93	2.017	498
Rising energy costs	1 male	2.82	1.801	242
	2 female	2.96	1.809	256
	Total	2.89	1.805	498
Special offer/grant availability	1 male	3.13	2.210	242
	2 female	3.11	2.127	256
	Total	3.12	2.166	498
Friend's recommendation	1 male	6.75	1.959	242
	2 female	6.68	1.926	256
	Total	6.71	1.941	498
No special circumstances	1 male	7.41	2.513	242
	2 female	7.57	2.291	256
	Total	7.49	2.401	498

Box's Test of Equality of Covariance Matrices[a]

Box's M	45.506
F	.992
df1	45
df2	802996.542
Sig.	.487

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.
a. Design: Intercept + Gender

Multivariate Tests[b]

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.988	4384.254[a]	9.000	488.000	.000	.988
	Wilks' Lambda	.012	4384.254[a]	9.000	488.000	.000	.988
	Hotelling's Trace	80.857	4384.254[a]	9.000	488.000	.000	.988
	Roy's Largest Root	80.857	4384.254[a]	9.000	488.000	.000	.988
Gender	Pillai's Trace	.019	1.059[a]	9.000	488.000	.392	.019
	Wilks' Lambda	.981	1.059[a]	9.000	488.000	.392	.019
	Hotelling's Trace	.020	1.059[a]	9.000	488.000	.392	.019
	Roy's Largest Root	.020	1.059[a]	9.000	488.000	.392	.019

a. Exact statistic
b. Design: Intercept + Gender

Levene's Test of Equality of Error Variances[a]

	F	df1	df2	Sig.
Extending house	.045	1	496	.832
Converting loft	2.335	1	496	.127
Moving into new property	.059	1	496	.808
Replacing heating system	1.092	1	496	.297
Replacing appliances	.025	1	496	.875
Rising energy costs	1.031	1	496	.311
Special offer/grant availability	1.363	1	496	.244
Friend's recommendation	.192	1	496	.661
No special circumstances	2.728	1	496	.099

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.
a. Design: Intercept + Gender

Tests of Between-Subjects Effects							
Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Extending house	14.752[a]	1	14.752	2.422	.120	.005
	Converting loft	4.061[b]	1	4.061	.732	.393	.001
	Moving into new property	2.520[c]	1	2.520	.428	.513	.001
	Replacing heating system	8.149[d]	1	8.149	1.974	.161	.004
	Replacing appliances	.008[e]	1	.008	.002	.964	.000
	Rising energy costs	2.398[f]	1	2.398	.736	.391	.001
	Special offer/grant availability	.064[g]	1	.064	.014	.907	.000
	Friend's recommendation	.652[h]	1	.652	.173	.678	.000
	No special circumstances	3.079[i]	1	3.079	.534	.465	.001
Intercept	Extending house	15546.680	1	15546.680	2552.253	.000	.837
	Converting loft	14667.483	1	14667.483	2643.445	.000	.842
	Moving into new property	16839.267	1	16839.267	2859.895	.000	.852
	Replacing heating system	6415.988	1	6415.988	1553.936	.000	.758
	Replacing appliances	7684.827	1	7684.827	1884.605	.000	.792
	Rising energy costs	4149.177	1	4149.177	1273.094	.000	.720
	Special offer/grant availability	4833.919	1	4833.919	1028.502	.000	.675
	Friend's recommendation	22443.543	1	22443.543	5950.209	.000	.923
	No special circumstances	27898.990	1	27898.990	4836.108	.000	.907
Gender	Extending house	14.752	1	14.752	2.422	.120	.005
	Converting loft	4.061	1	4.061	.732	.393	.001
	Moving into new property	2.520	1	2.520	.428	.513	.001
	Replacing heating system	8.149	1	8.149	1.974	.161	.004
	Replacing appliances	.008	1	.008	.002	.964	.000
	Rising energy costs	2.398	1	2.398	.736	.391	.001
	Special offer/grant availability	.064	1	.064	.014	.907	.000
	Friend's recommendation	.652	1	.652	.173	.678	.000
	No special circumstances	3.079	1	3.079	.534	.465	.001
Error	Extending house	3021.312	496	6.091			
	Converting loft	2752.117	496	5.549			
	Moving into new property	2920.484	496	5.888			
	Replacing heating system	2047.915	496	4.129			
	Replacing appliances	2022.532	496	4.078			
	Rising energy costs	1616.527	496	3.259			
	Special offer/grant availability	2331.181	496	4.700			
	Friend's recommendation	1870.858	496	3.772			
	No special circumstances	2861.371	496	5.769			
Total	Extending house	18622.000	498				

	Converting loft	17449.000	498				
	Moving into new property	19764.000	498				
	Replacing heating system	8490.000	498				
	Replacing appliances	9713.000	498				
	Rising energy costs	5777.000	498				
	Special offer/grant availability	7168.000	498				
	Friend's recommendation	24326.000	498				
	No special circumstances	30802.000	498				
Corrected Total	Extending house	3036.064	497				
	Converting loft	2756.179	497				
	Moving into new property	2923.004	497				
	Replacing heating system	2056.064	497				
	Replacing appliances	2022.540	497				
	Rising energy costs	1618.926	497				
	Special offer/grant availability	2331.245	497				
	Friend's recommendation	1871.510	497				
	No special circumstances	2864.450	497				
a. R Squared = .005 (Adjusted R Squared = .003)							
b. R Squared = .001 (Adjusted R Squared = -.001)							
c. R Squared = .001 (Adjusted R Squared = -.001)							
d. R Squared = .004 (Adjusted R Squared = .002)							
e. R Squared = .000 (Adjusted R Squared = -.002)							
f. R Squared = .001 (Adjusted R Squared = -.001)							
g. R Squared = .000 (Adjusted R Squared = -.002)							
h. R Squared = .000 (Adjusted R Squared = -.002)							
i. R Squared = .001 (Adjusted R Squared = -.001)							

Estimated Marginal Means

Gender					
Dependent Variable	Gender			95% Confidence Interval	
		Mean	Std. Error	Lower Bound	Upper Bound
Extending house	1 male	5.417	.159	5.106	5.729
	2 female	5.762	.154	5.459	6.065
Converting loft	1 male	5.339	.151	5.041	5.636
	2 female	5.520	.147	5.230	5.809
Moving into new property	1 male	5.888	.156	5.582	6.195
	2 female	5.746	.152	5.448	6.044
Replacing heating system	1 male	3.463	.131	3.206	3.719
	2 female	3.719	.127	3.469	3.968
Replacing appliances	1 male	3.934	.130	3.679	4.189
	2 female	3.926	.126	3.678	4.174
Rising energy costs	1 male	2.818	.116	2.590	3.046
	2 female	2.957	.113	2.735	3.179
Special offer/grant availability	1 male	3.128	.139	2.854	3.402
	2 female	3.105	.135	2.839	3.372
Friend's recommendation	1 male	6.752	.125	6.507	6.997
	2 female	6.680	.121	6.441	6.918
No special circumstances	1 male	7.409	.154	7.106	7.712
	2 female	7.566	.150	7.271	7.861

MANOVA test for circumstances (Question A4) and age (Question D11)

Between-Subjects Factors			
		Value Label	N
Age (Binned)	1	Over 70	108

	2	Between 57-69	118
	3	Between 42-56	134
	4	41 or under	124

Descriptive Statistics				
	Age (Binned)	Mean	Std. Deviation	N
Extending house	1 Over 70	6.16	2.551	108
	2 Between 57-69	5.64	2.409	118
	3 Between 42-56	5.03	2.641	134
	4 41 or under	5.63	2.232	124
	Total	5.58	2.490	484
Converting loft	1 Over 70	5.70	2.373	108
	2 Between 57-69	5.72	2.305	118
	3 Between 42-56	5.16	2.484	134
	4 41 or under	5.18	2.216	124
	Total	5.42	2.357	484
Moving into new property	1 Over 70	6.21	2.565	108
	2 Between 57-69	6.01	2.236	118
	3 Between 42-56	5.87	2.517	134
	4 41 or under	5.27	2.313	124
	Total	5.83	2.429	484
Replacing heating system	1 Over 70	3.44	2.043	108
	2 Between 57-69	3.38	1.982	118
	3 Between 42-56	3.90	2.167	134
	4 41 or under	3.64	1.939	124
	Total	3.60	2.042	484
Replacing appliances	1 Over 70	4.00	1.967	108
	2 Between 57-69	3.65	1.883	118
	3 Between 42-56	4.04	2.059	134
	4 41 or under	4.02	2.154	124
	Total	3.93	2.023	484
Rising energy costs	1 Over 70	2.73	1.672	108
	2 Between 57-69	2.83	1.794	118
	3 Between 42-56	3.01	1.908	134
	4 41 or under	3.05	1.856	124
	Total	2.92	1.815	484
Special offer/grant availability	1 Over 70	3.04	2.279	108
	2 Between 57-69	2.98	2.013	118
	3 Between 42-56	3.21	2.135	134
	4 41 or under	3.19	2.250	124
	Total	3.11	2.165	484
Friend's recommendation	1 Over 70	6.46	1.916	108
	2 Between 57-69	6.75	1.921	118
	3 Between 42-56	6.91	1.849	134
	4 41 or under	6.65	2.045	124
	Total	6.70	1.934	484
No special circumstances	1 Over 70	7.32	2.095	108
	2 Between 57-69	7.44	2.584	118
	3 Between 42-56	7.63	2.442	134
	4 41 or under	7.45	2.529	124
	Total	7.47	2.423	484

Box's Test of Equality of Covariance Matrices[a]	
Box's M	199.789
F	1.431
df1	135
df2	484247.854
Sig.	.001

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.
a. Design: Intercept + Age groups

Multivariate Tests[c]						
Effect	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared

Intercept	Pillai's Trace	.988	4159.663[a]	9.000	472.000	.000	.988
	Wilks' Lambda	.012	4159.663[a]	9.000	472.000	.000	.988
	Hotelling's Trace	79.316	4159.663[a]	9.000	472.000	.000	.988
	Roy's Largest Root	79.316	4159.663[a]	9.000	472.000	.000	.988
Age groups	Pillai's Trace	.076	1.369	27.000	1422.000	.099	.025
	Wilks' Lambda	.926	1.369	27.000	1379.126	.099	.025
	Hotelling's Trace	.079	1.369	27.000	1412.000	.099	.026
	Roy's Largest Root	.043	2.241[b]	9.000	474.000	.019	.041
a. Exact statistic							
b. The statistic is an upper bound on F that yields a lower bound on the significance level.							
c. Design: Intercept + D11							

Levene's Test of Equality of Error Variances[a]

	F	df1	df2	Sig.
Extending house	1.819	3	480	.143
Converting loft	.975	3	480	.404
Moving into new property	1.744	3	480	.157
Replacing heating system	.457	3	480	.712
Replacing appliances	1.643	3	480	.179
Rising energy costs	.285	3	480	.836
Special offer/grant availability	.598	3	480	.617
Friend's recommendation	1.157	3	480	.326
No special circumstances	1.295	3	480	.276
Tests the null hypothesis that the error variance of the dependent variable is equal across groups.				
a. Design: Intercept + Age				

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Extending house	77.336[a]	3	25.779	4.243	.006	.026
	Converting loft	35.397[b]	3	11.799	2.138	.095	.013
	Moving into new property	59.267[c]	3	19.756	3.399	.018	.021
	Replacing heating system	20.122[d]	3	6.707	1.615	.185	.010
	Replacing appliances	12.471[e]	3	4.157	1.016	.385	.006
	Rising energy costs	8.024[f]	3	2.675	.811	.488	.005
	Special offer/grant availability	4.495[g]	3	1.498	.318	.812	.002
	Friend's recommendation	12.713[h]	3	4.238	1.134	.335	.007
	No special circumstances	5.740[i]	3	1.913	.324	.808	.002
Intercept	Extending house	15166.926	1	15166.926	2496.450	.000	.839
	Converting loft	14243.185	1	14243.185	2581.091	.000	.843
	Moving into new property	16407.255	1	16407.255	2822.597	.000	.855
	Replacing heating system	6198.370	1	6198.370	1492.300	.000	.757
	Replacing appliances	7431.095	1	7431.095	1816.697	.000	.791
	Rising energy costs	4063.242	1	4063.242	1231.672	.000	.720
	Special offer/grant availability	4633.664	1	4633.664	984.707	.000	.672
	Friend's recommendation	21550.239	1	21550.239	5765.831	.000	.923
	No special circumstances	26776.627	1	26776.627	4540.343	.000	.904
Age groups	Extending house	77.336	3	25.779	4.243	.006	.026
	Converting loft	35.397	3	11.799	2.138	.095	.013
	Moving into new property	59.267	3	19.756	3.399	.018	.021
	Replacing heating system	20.122	3	6.707	1.615	.185	.010
	Replacing appliances	12.471	3	4.157	1.016	.385	.006
	Rising energy costs	8.024	3	2.675	.811	.488	.005
	Special offer/grant availability	4.495	3	1.498	.318	.812	.002
	Friend's recommendation	12.713	3	4.238	1.134	.335	.007
	No special circumstances	5.740	3	1.913	.324	.808	.002
Error	Extending house	2916.191	480	6.075			
	Converting loft	2648.775	480	5.518			
	Moving into new property	2790.154	480	5.813			
	Replacing heating system	1993.712	480	4.154			
	Replacing appliances	1963.413	480	4.090			
	Rising energy costs	1583.503	480	3.299			
	Special offer/grant availability	2258.701	480	4.706			
	Friend's recommendation	1794.037	480	3.738			

	No special circumstances	2830.795	480	5.897			
Total	Extending house	18089.000	484				
	Converting loft	16921.000	484				
	Moving into new property	19280.000	484				
	Replacing heating system	8298.000	484				
	Replacing appliances	9466.000	484				
	Rising energy costs	5705.000	484				
	Special offer/grant availability	6943.000	484				
	Friend's recommendation	23563.000	484				
	No special circumstances	29837.000	484				
Corrected Total	Extending house	2993.527	483				
	Converting loft	2684.171	483				
	Moving into new property	2849.421	483				
	Replacing heating system	2013.835	483				
	Replacing appliances	1975.884	483				
	Rising energy costs	1591.527	483				
	Special offer/grant availability	2263.196	483				
	Friend's recommendation	1806.750	483				
	No special circumstances	2836.535	483				

a. R Squared = .026 (Adjusted R Squared = .020)
b. R Squared = .013 (Adjusted R Squared = .007)
c. R Squared = .021 (Adjusted R Squared = .015)
d. R Squared = .010 (Adjusted R Squared = .004)
e. R Squared = .006 (Adjusted R Squared = .000)
f. R Squared = .005 (Adjusted R Squared = -.001)
g. R Squared = .002 (Adjusted R Squared = -.004)
h. R Squared = .007 (Adjusted R Squared = .001)
i. R Squared = .002 (Adjusted R Squared = -.004)

Estimated Marginal Means

Age (Binned)

Dependent Variable	Age (Binned)	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Extending house	1 Over 70	6.157	.237	5.691	6.623
	2 Between 57-69	5.644	.227	5.198	6.090
	3 Between 42-56	5.030	.213	4.611	5.448
	4 41 or under	5.629	.221	5.194	6.064
Converting loft	1 Over 70	5.704	.226	5.260	6.148
	2 Between 57-69	5.720	.216	5.295	6.145
	3 Between 42-56	5.164	.203	4.765	5.563
	4 41 or under	5.177	.211	4.763	5.592
Moving into new property	1 Over 70	6.213	.232	5.757	6.669
	2 Between 57-69	6.008	.222	5.572	6.445
	3 Between 42-56	5.873	.208	5.464	6.282
	4 41 or under	5.266	.217	4.841	5.692
Replacing heating system	1 Over 70	3.444	.196	3.059	3.830
	2 Between 57-69	3.381	.188	3.013	3.750
	3 Between 42-56	3.896	.176	3.550	4.241
	4 41 or under	3.637	.183	3.277	3.997
Replacing appliances	1 Over 70	4.000	.195	3.618	4.382
	2 Between 57-69	3.653	.186	3.287	4.018
	3 Between 42-56	4.045	.175	3.701	4.388
	4 41 or under	4.024	.182	3.667	4.381
Rising energy costs	1 Over 70	2.731	.175	2.388	3.075
	2 Between 57-69	2.831	.167	2.502	3.159
	3 Between 42-56	3.015	.157	2.707	3.323
	4 41 or under	3.048	.163	2.728	3.369
Special offer/grant availability	1 Over 70	3.037	.209	2.627	3.447
	2 Between 57-69	2.983	.200	2.591	3.375
	3 Between 42-56	3.209	.187	2.841	3.577
	4 41 or under	3.185	.195	2.803	3.568
Friend's recommendation	1 Over 70	6.463	.186	6.097	6.828
	2 Between 57-69	6.754	.178	6.405	7.104
	3 Between 42-56	6.910	.167	6.582	7.239

	4 41 or under	6.645	.174	6.304	6.986
No special circumstances	1 Over 70	7.324	.234	6.865	7.783
	2 Between 57-69	7.441	.224	7.001	7.880
	3 Between 42-56	7.627	.210	7.215	8.039
	4 41 or under	7.452	.218	7.023	7.880

Kendall's tau_b nonparametric correlations for motivators (Question A5) and gender (Question D10) and Age (Question D11)

Correlations

			Gender	Age (Binned)
Kendall's tau_b	To reduce the amount of harmful emissions	Correlation Coefficient	-.043	.026
		Sig. (2-tailed)	.216	.416
		N	692	669
	To save money on fuel bills	Correlation Coefficient	.069	-.011
		Sig. (2-tailed)	.058	.743
		N	708	684
	To preserve finite fuel resources	Correlation Coefficient	-.051	.056
		Sig. (2-tailed)	.145	.083
		N	684	664
	To improve saleability of my home	Correlation Coefficient	.098**	.014
		Sig. (2-tailed)	.005	.662
		N	683	661
	To comply with building regulations	Correlation Coefficient	-.024	.073*
		Sig. (2-tailed)	.512	.032
		N	672	651

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

MANOVA test for motivators (Question A5) and gender (Question D10)

Between-Subjects Factors

		Value Label	N
Gender	1	male	317
	2	female	352

Descriptive Statistics

	Gender	Mean	Std. Deviation	N
To preserve finite fuel resources	1 male	2.91	1.010	317
	2 female	2.75	1.038	352
	Total	2.83	1.027	669
To improve saleability of my home	1 male	3.46	1.101	317
	2 female	3.69	1.070	352
	Total	3.58	1.090	669
To comply with building regulations	1 male	4.39	1.024	317
	2 female	4.32	1.092	352
	Total	4.35	1.060	669

Box's Test of Equality of Covariance Matrices[a]

Box's M	3.628
F	.602
df1	6
df2	3130541.474
Sig.	.729

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept + Gender

Multivariate Tests[b]

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.972	7761.868[a]	3.000	665.000	.000	.972
	Wilks' Lambda	.028	7761.868[a]	3.000	665.000	.000	.972
	Hotelling's Trace	35.016	7761.868[a]	3.000	665.000	.000	.972
	Roy's Largest Root	35.016	7761.868[a]	3.000	665.000	.000	.972
Gender	Pillai's Trace	.016	3.713[a]	3.000	665.000	.011	.016
	Wilks' Lambda	.984	3.713[a]	3.000	665.000	.011	.016

Hotelling's Trace	.017	3.713[a]	3.000	665.000	.011	.016
Roy's Largest Root	.017	3.713[a]	3.000	665.000	.011	.016
a.Exact statistic						
b. Design: Intercept + Gender						

Levene's Test of Equality of Error Variances[a]

	F	df1	df2	Sig.
To preserve finite fuel resources	2.097	1	667	.148
To improve saleability of my home	3.826	1	667	.051
To comply with building regulations	1.143	1	667	.285
Tests the null hypothesis that the error variance of the dependent variable is equal across groups.				
a. Design: Intercept + Gender				

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	To preserve finite fuel resources	4.191[a]	1	4.191	3.992	.046	.006
	To improve saleability of my home	8.590[b]	1	8.590	7.304	.007	.011
	To comply with building regulations	.813[c]	1	.813	.724	.395	.001
Intercept	To preserve finite fuel resources	5340.490	1	5340.490	5086.203	.000	.884
	To improve saleability of my home	8522.228	1	8522.228	7246.884	.000	.916
	To comply with building regulations	12642.487	1	12642.487	11248.814	.000	.944
Gender	To preserve finite fuel resources	4.191	1	4.191	3.992	.046	.006
	To improve saleability of my home	8.590	1	8.590	7.304	.007	.011
	To comply with building regulations	.813	1	.813	.724	.395	.001
Error	To preserve finite fuel resources	700.347	667	1.050			
	To improve saleability of my home	784.382	667	1.176			
	To comply with building regulations	749.638	667	1.124			
Total	To preserve finite fuel resources	6044.000	669				
	To improve saleability of my home	9367.000	669				
	To comply with building regulations	13417.000	669				
Corrected Total	To preserve finite fuel resources	704.538	668				
	To improve saleability of my home	792.972	668				
	To comply with building regulations	750.451	668				
a. R Squared = .006 (Adjusted R Squared = .004)							
b. R Squared = .011 (Adjusted R Squared = .009)							
c. R Squared = .001 (Adjusted R Squared = .000)							

Estimated Marginal Means

Gender

Dependent Variable	Gender	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
To preserve finite fuel resources	1 male	2.909	.058	2.796	3.022
	2 female	2.750	.055	2.643	2.857
To improve saleability of my home	1 male	3.461	.061	3.341	3.580
	2 female	3.688	.058	3.574	3.801
To comply with building regulations	1 male	4.388	.060	4.271	4.505
	2 female	4.318	.057	4.207	4.429

ANOVA test for motivators (Question A5) and gender (Question D10)

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
To reduce the amount of harmful emissions	6.027	1	690	.014
To save money on fuel bills	9.987	1	706	.002

ANOVA

		Sum of Squares	df	Mean Square
To reduce the amount of harmful emissions	Between Groups	2.551	1	2.551
	Within Groups	802.698	690	1.163
	Total	805.249	691	
To save money on fuel bills	Between Groups	2.796	1	2.796
	Within Groups	488.933	706	.693
	Total	491.729	707	

ANOVA			
		F	Sig.
To reduce the amount of harmful emissions	Between Groups	2.193	.139
To save money on fuel bills	Between Groups	4.037	.045

Robust Tests of Equality of Means					
		Statistic[a]	df1	df2	Sig.
To reduce the amount of harmful emissions	Welch	2.171	1	663.459	.141
	Brown-Forsythe	2.171	1	663.459	.141
To save money on fuel bills	Welch	4.093	1	704.476	.043
	Brown-Forsythe	4.093	1	704.476	.043

a. Asymptotically F distributed.

The Chi-square test of independence for motivators (Question A5) and gender (Question D10)

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Reduce emissions * Gender	692	96.0%	29	4.0%	721	100.0%
Save money * Gender	708	98.2%	13	1.8%	721	100.0%

To reduce the amount of harmful emissions * Gender

Crosstab					
			Gender		
			1 male	2 female	Total
To reduce the amount of harmful emissions	1	Count	90	104	194
		% within Reduce emissions	46.4%	53.6%	100.0%
		% within Gender	27.6%	28.4%	28.0%
		% of Total	13.0%	15.0%	28.0%
	2	Count	111	138	249
		% within Reduce emissions	44.6%	55.4%	100.0%
		% within Gender	34.0%	37.7%	36.0%
		% of Total	16.0%	19.9%	36.0%
	3	Count	72	87	159
		% within Reduce emissions	45.3%	54.7%	100.0%
		% within Gender	22.1%	23.8%	23.0%
		% of Total	10.4%	12.6%	23.0%
	4	Count	39	24	63
		% within Reduce emissions	61.9%	38.1%	100.0%
		% within Gender	12.0%	6.6%	9.1%
		% of Total	5.6%	3.5%	9.1%
	5	Count	14	13	27
		% within Reduce emissions	51.9%	48.1%	100.0%
		% within Gender	4.3%	3.6%	3.9%
		% of Total	2.0%	1.9%	3.9%
	Total	Count	326	366	692
		% within Reduce emissions	47.1%	52.9%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	47.1%	52.9%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.672[a]	4	.154
Likelihood Ratio	6.691	4	.153
Linear-by-Linear Association	2.189	1	.139
N of Valid Cases	692		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 12.72.

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.098	.154
	Cramer's V	.098	.154
	N of Valid Cases	692	

To save money on fuel bills * Gender

Crosstab

			Gender		
			1 male	2 female	Total
To save money on fuel bills	1	Count	249	252	501
		% within Save money	49.7%	50.3%	100.0%
		% within Gender	73.9%	67.9%	70.8%
		% of Total	35.2%	35.6%	70.8%
	2	Count	55	67	122
		% within Save money	45.1%	54.9%	100.0%
		% within Gender	16.3%	18.1%	17.2%
		% of Total	7.8%	9.5%	17.2%
	3	Count	26	36	62
		% within Save money	41.9%	58.1%	100.0%
		% within Gender	7.7%	9.7%	8.8%
		% of Total	3.7%	5.1%	8.8%
	4	Count	3	11	14
		% within Save money	21.4%	78.6%	100.0%
		% within Gender	.9%	3.0%	2.0%
		% of Total	.4%	1.6%	2.0%
	5	Count	4	5	9
		% within Save money	44.4%	55.6%	100.0%
		% within Gender	1.2%	1.3%	1.3%
		% of Total	.6%	.7%	1.3%
	Total	Count	337	371	708
		% within Save money	47.6%	52.4%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	47.6%	52.4%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.875[a]	4	.209
Likelihood Ratio	6.158	4	.188
Linear-by-Linear Association	4.020	1	.045
N of Valid Cases	708		

a. 2 cells (20.0%) have expected count less than 5. The minimum expected count is 4.28.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.091	.209
	Cramer's V	.091	.209
	N of Valid Cases	708	

MANOVA test for motivators (Question A5) and age (Question D11)

Between-Subjects Factors

		Value Label	N
Age (Binned)	1	Over 70	173
	2	Between 57-69	151
	3	Between 42-56	178
	4	41 or under	154

Descriptive Statistics

	Age (Binned)	Mean	Std. Deviation	N
To reduce the amount of harmful emissions	1 Over 70	2.21	1.043	173
	2 Between 57-69	2.26	1.153	151
	3 Between 42-56	2.37	1.093	178
	4 41 or under	2.23	1.032	154
	Total	2.27	1.079	656
To preserve finite fuel resources	1 Over 70	2.70	1.018	173
	2 Between 57-69	2.81	1.003	151
	3 Between 42-56	2.84	1.136	178
	4 41 or under	2.89	.933	154
	Total	2.81	1.029	656

To improve saleability of my home	1 Over 70	3.57	1.122	173
	2 Between 57-69	3.64	1.110	151
	3 Between 42-56	3.46	1.125	178
	4 41 or under	3.68	.995	154
	Total	3.58	1.092	656

Box's Test of Equality of Covariance Matrices[a]

Box's M	20.846
F	1.148
df1	18
df2	1444114.066
Sig.	.296

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.
a. Design: Intercept + Age groups

Multivariate Tests[c]

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.971	7166.230[a]	3.000	650.000	.000	.971
	Wilks' Lambda	.029	7166.230[a]	3.000	650.000	.000	.971
	Hotelling's Trace	33.075	7166.230[a]	3.000	650.000	.000	.971
	Roy's Largest Root	33.075	7166.230[a]	3.000	650.000	.000	.971
Age groups	Pillai's Trace	.013	.976	9.000	1956.000	.458	.004
	Wilks' Lambda	.987	.975	9.000	1582.080	.459	.004
	Hotelling's Trace	.014	.974	9.000	1946.000	.460	.004
	Roy's Largest Root	.009	1.973[b]	3.000	652.000	.117	.009

a. Exact statistic
b. The statistic is an upper bound on F that yields a lower bound on the significance level.
c. Design: Intercept + Age groups

Levene's Test of Equality of Error Variances[a]

	F	df1	df2	Sig.
To reduce the amount of harmful emissions	.913	3	652	.434
To preserve finite fuel resources	2.481	3	652	.060
To improve saleability of my home	2.601	3	652	.051

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.
a. Design: Intercept + Age groups

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	To reduce the amount of harmful emissions	2.442[a]	3	.814	.698	.554	.003
	To preserve finite fuel resources	3.222[b]	3	1.074	1.014	.386	.005
	To improve saleability of my home	4.855[c]	3	1.618	1.358	.255	.006
Intercept	To reduce the amount of harmful emissions	3356.685	1	3356.685	2876.653	.000	.815
	To preserve finite fuel resources	5154.243	1	5154.243	4866.320	.000	.882
	To improve saleability of my home	8394.100	1	8394.100	7044.938	.000	.915
Age groups	To reduce the amount of harmful emissions	2.442	3	.814	.698	.554	.003
	To preserve finite fuel resources	3.222	3	1.074	1.014	.386	.005
	To improve saleability of my home	4.855	3	1.618	1.358	.255	.006
Error	To reduce the amount of harmful emissions	760.800	652	1.167			
	To preserve finite fuel resources	690.577	652	1.059			
	To improve saleability of my home	776.863	652	1.192			
Total	To reduce the amount of harmful emissions	4143.000	656				

	To preserve finite fuel resources	5866.000	656				
	To improve saleability of my home	9193.000	656				
Corrected Total	To reduce the amount of harmful emissions	763.242	655				
	To preserve finite fuel resources	693.799	655				
	To improve saleability of my home	781.718	655				
a. R Squared = .003 (Adjusted R Squared = -.001)							
b. R Squared = .005 (Adjusted R Squared = .000)							
c. R Squared = .006 (Adjusted R Squared = .002)							

Estimated Marginal Mean

Age (Binned)					
Dependent Variable	Age (Binned)			95% Confidence Interval	
		Mean	Std. Error	Lower Bound	Upper Bound
To reduce the amount of harmful emissions	1 Over 70	2.214	.082	2.053	2.375
	2 Between 57-69	2.265	.088	2.092	2.438
	3 Between 42-56	2.365	.081	2.206	2.524
	4 41 or under	2.227	.087	2.056	2.398
To preserve finite fuel resources	1 Over 70	2.699	.078	2.546	2.853
	2 Between 57-69	2.815	.084	2.650	2.979
	3 Between 42-56	2.837	.077	2.686	2.989
	4 41 or under	2.890	.083	2.727	3.052
To improve saleability of my home	1 Over 70	3.572	.083	3.409	3.735
	2 Between 57-69	3.636	.089	3.461	3.810
	3 Between 42-56	3.455	.082	3.294	3.616
	4 41 or under	3.682	.088	3.509	3.855

ANOVA test for motivators (Question A5) and age (Question D11)

Descriptives					
		N	Mean	Std. Deviation	Std. Error
To save money on fuel bills	1 Over 70	185	1.43	.818	.060
	2 Between 57-69	156	1.58	.923	.074
	3 Between 42-56	187	1.41	.793	.058
	4 41 or under	156	1.42	.795	.064
	Total	684	1.45	.833	.032
To comply with building regulations	1 Over 70	170	4.27	1.114	.085
	2 Between 57-69	151	4.29	1.111	.090
	3 Between 42-56	176	4.30	1.124	.085
	4 41 or under	154	4.51	.923	.074
	Total	651	4.34	1.076	.042

Descriptives					
		95% Confidence Interval for Mean			
		Lower Bound	Upper Bound	Minimum	Maximum
To save money on fuel bills	1 Over 70	1.31	1.55	1	5
	2 Between 57-69	1.43	1.72	1	5
	3 Between 42-56	1.29	1.52	1	5
	4 41 or under	1.30	1.55	1	5
	Total	1.39	1.52	1	5
To comply with building regulations	1 Over 70	4.10	4.44	1	5
	2 Between 57-69	4.11	4.47	1	5
	3 Between 42-56	4.13	4.47	1	5
	4 41 or under	4.37	4.66	1	5
	Total	4.26	4.42	1	5

Test of Homogeneity of Variances				
	Levene Statistic	df1	df2	Sig.
To save money on fuel bills	3.185	3	680	.023
To comply with building regulations	3.126	3	647	.025

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
To save money on fuel bills	Between Groups	3.064	3	1.021	1.476	.220
	Within Groups	470.531	680	.692		
	Total	473.595	683			
To comply with building regulations	Between Groups	6.049	3	2.016	1.748	.156
	Within Groups	746.246	647	1.153		
	Total	752.295	650			

Robust Tests of Equality of Means					
		Statistic[a]	df1	df2	Sig.
To save money on fuel bills	Welch	1.272	3	370.454	.284
	Brown-Forsythe	1.464	3	648.255	.223
To comply with building regulations	Welch	2.118	3	357.418	.098
	Brown-Forsythe	1.760	3	635.649	.154

a. Asymptotically F distributed.

Post Hoc Tests

Multiple Comparisons

Tukey HSD

Dependent Variable	(I) Age (Binned)	(J) Age (Binned)	Mean Difference (I-J)	Std. Error
To save money on fuel bills	1 Over 70	2 Between 57-69	-.150	.090
		3 Between 42-56	.021	.086
		4 41 or under	.004	.090
	2 Between 57-69	1 Over 70	.150	.090
		3 Between 42-56	.171	.090
		4 41 or under	.154	.094
	3 Between 42-56	1 Over 70	-.021	.086
		2 Between 57-69	-.171	.090
		4 41 or under	-.017	.090
	4 41 or under	1 Over 70	-.004	.090
		2 Between 57-69	-.154	.094
		3 Between 42-56	.017	.090
To comply with building regulations	1 Over 70	2 Between 57-69	-.021	.120
		3 Between 42-56	-.031	.115
		4 41 or under	-.242	.119
	2 Between 57-69	1 Over 70	.021	.120
		3 Between 42-56	-.010	.119
		4 41 or under	-.222	.123
	3 Between 42-56	1 Over 70	.031	.115
		2 Between 57-69	.010	.119
		4 41 or under	-.212	.119
	4 41 or under	1 Over 70	.242	.119
		2 Between 57-69	.222	.123
		3 Between 42-56	.212	.119

Multiple Comparisons

Tukey HSD

Dependent Variable	(I) Age (Binned)	(J) Age (Binned)	Sig.	99.4% Confidence Interval Lower Bound
To save money on fuel bills	1 Over 70	2 Between 57-69	.347	-.45
		3 Between 42-56	.995	-.26
		4 41 or under	1.000	-.29
	2 Between 57-69	1 Over 70	.347	-.15
		3 Between 42-56	.233	-.13
		4 41 or under	.360	-.16
	3 Between 42-56	1 Over 70	.995	-.30
		2 Between 57-69	.233	-.47
		4 41 or under	.998	-.31
	4 41 or under	1 Over 70	1.000	-.30
		2 Between 57-69	.360	-.46
		3 Between 42-56	.998	-.28
To comply with	1 Over 70	2 Between 57-69	.998	-.41

building regulations		3 Between 42-56	.994	-.41
		4 41 or under	.178	-.63
	2 Between 57-69	1 Over 70	.998	-.37
		3 Between 42-56	1.000	-.40
		4 41 or under	.273	-.63
	3 Between 42-56	1 Over 70	.994	-.35
		2 Between 57-69	1.000	-.38
		4 41 or under	.280	-.60
	4 41 or under	1 Over 70	.178	-.15
		2 Between 57-69	.273	-.18
		3 Between 42-56	.280	-.18

Multiple Comparisons

Tukey HSD

Dependent Variable	(I) Age (Binned)	(J) Age (Binned)	99.4% Confidence Interval
			Upper Bound
To save money on fuel bills	1 Over 70	2 Between 57-69	.15
		3 Between 42-56	.30
		4 41 or under	.30
	2 Between 57-69	1 Over 70	.45
		3 Between 42-56	.47
		4 41 or under	.46
	3 Between 42-56	1 Over 70	.26
		2 Between 57-69	.13
		4 41 or under	.28
	4 41 or under	1 Over 70	.29
		2 Between 57-69	.16
		3 Between 42-56	.31
To comply with building regulations	1 Over 70	2 Between 57-69	.37
		3 Between 42-56	.35
		4 41 or under	.15
	2 Between 57-69	1 Over 70	.41
		3 Between 42-56	.38
		4 41 or under	.18
	3 Between 42-56	1 Over 70	.41
		2 Between 57-69	.40
		4 41 or under	.18
	4 41 or under	1 Over 70	.63
		2 Between 57-69	.63
		3 Between 42-56	.60

Homogeneous Subsets

To save money on fuel bills

Tukey HSD[a,b]

Age (Binned)	N	Subset for alpha = 0.006
		1
3 Between 42-56	187	1.41
4 41 or under	156	1.42
1 Over 70	185	1.43
2 Between 57-69	156	1.58
Sig.		.234

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 169.682.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

To comply with building regulations

Tukey HSD[a,b]

Age (Binned)	N	Subset for alpha = 0.006
		1
1 Over 70	170	4.27
2 Between 57-69	151	4.29
3 Between 42-56	176	4.30
4 41 or under	154	4.51

Sig.			.177
Means for groups in homogeneous subsets are displayed.			
a. Uses Harmonic Mean Sample Size = 162.073.			
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.			

3 How many respondents participated in the selected programmes and what are the potentially influencing factors?

Kendall's tau_b nonparametric correlations for participation rates in programmes (Question B2) and respondents' gender (Question D10) and age (Question D11)

Insulation and appliances programmes

Correlations				
			Gender	Age (Binned)
Kendall's tau_b	Warm Front	Correlation Coefficient	.011	.102**
		Sig. (2-tailed)	.761	.004
		N	702	678
	WHGH	Correlation Coefficient	.071	.096**
		Sig. (2-tailed)	.060	.006
		N	702	678
	Cocoon	Correlation Coefficient	-.018	-.055
		Sig. (2-tailed)	.636	.120
		N	702	678
	Eon insulation	Correlation Coefficient	.084*	.026
		Sig. (2-tailed)	.026	.454
		N	702	678
	BG insulation	Correlation Coefficient	.042	.096**
		Sig. (2-tailed)	.263	.006
		N	702	678
	BGBS	Correlation Coefficient	.040	.046
		Sig. (2-tailed)	.292	.191
		N	702	678
	Energy Labelling of White Goods	Correlation Coefficient	-.074*	-.039
		Sig. (2-tailed)	.050	.272
		N	702	678
	Council cfls	Correlation Coefficient	-.076*	.081*
		Sig. (2-tailed)	.045	.021
		N	702	678
	Suppliers cfls	Correlation Coefficient	-.019	.094**
		Sig. (2-tailed)	.620	.007
		N	702	678
**. Correlation is significant at the 0.01 level (2-tailed).				
*. Correlation is significant at the 0.05 level (2-tailed).				

Advice and education programmes

Correlations				
			Gender	Age (Binned)
Kendall's tau_b	Are You Doing Your Bit?	Correlation Coefficient	-.017	.091**
		Sig. (2-tailed)	.646	.010
		N	702	678
	Commit 20%	Correlation Coefficient	-.015	.023
		Sig. (2-tailed)	.687	.518
		N	702	678
	Act on CO_2	Correlation Coefficient	.033	-.054
		Sig. (2-tailed)	.389	.126
		N	702	678
	Save Today Save Tomorrow	Correlation Coefficient	-.033	.020
		Sig. (2-tailed)	.375	.564
		N	702	678
	Savers report	Correlation Coefficient	.025	.044
		Sig. (2-tailed)	.510	.213

		N	702	678
	Energy for Good	Correlation Coefficient	.040	.046
		Sig. (2-tailed)	.292	.191
		N	702	678
	HEC report	Correlation Coefficient	.013	.053
		Sig. (2-tailed)	.732	.134
		N	702	678
**. Correlation is significant at the 0.01 level (2-tailed).				

Renewable energy technology programmes

Correlations					
			Property Age	Property Type	External Wall
Kendall's tau_b	PV	Correlation Coefficient	-.018	-.017	-.002
		Sig. (2-tailed)	.623	.633	.954
		N	705	705	705
	Clear Skies	Correlation Coefficient	-.039	.007	-.002
		Sig. (2-tailed)	.280	.849	.954
		N	705	705	705
	LCBP	Correlation Coefficient	-.020	.006	-.006
		Sig. (2-tailed)	.585	.868	.869
		N	705	705	705

Kendall's tau_b nonparametric correlations for participation rates in programmes (Question B2) and respondents' property's age (Question D3), property's type (Question D2) and property's external wall (Question D4)

Insulation and appliances programmes

Correlations					
			Property Age	Property Type	External Wall
Kendall's tau_b	Warm Front	Correlation Coefficient	.030	.034	-.016
		Sig. (2-tailed)	.401	.333	.662
		N	705	705	705
	WHGH	Correlation Coefficient	.003	-.010	-.039
		Sig. (2-tailed)	.931	.783	.291
		N	705	705	705
	Cocoon	Correlation Coefficient	-.036	-.013	.000
		Sig. (2-tailed)	.317	.718	.995
		N	705	705	705
	Eon insulation	Correlation Coefficient	.020	-.034	.032
		Sig. (2-tailed)	.574	.326	.381
		N	705	705	705
	BG insulation	Correlation Coefficient	-.003	.018	.013
		Sig. (2-tailed)	.935	.614	.728
		N	705	705	705
	BGBS	Correlation Coefficient	.001	.040	-.029
		Sig. (2-tailed)	.971	.252	.433
		N	705	705	705
	Energy Labelling of White Goods	Correlation Coefficient	-.046	.014	-.060
		Sig. (2-tailed)	.201	.680	.102
		N	705	705	705
	Council cfls	Correlation Coefficient	-.013	-.050	-.048
		Sig. (2-tailed)	.722	.158	.190
		N	705	705	705
	Suppliers cfls	Correlation Coefficient	-.025	.046	-.015
		Sig. (2-tailed)	.478	.192	.687
		N	705	705	705

Advice and Education Programmes

Correlations					
			Property Age	Property Type	External Wall
Kendall's tau_b	Are You Doing Your Bit?	Correlation Coefficient	.101**	-.024	.099**
		Sig. (2-tailed)	.005	.494	.006
		N	705	705	705

	Commit 20%	Correlation Coefficient	.005	.018	.032
		Sig. (2-tailed)	.888	.617	.375
		N	705	705	705
	Act on CO_2	Correlation Coefficient	.005	-.072*	.052
		Sig. (2-tailed)	.885	.040	.152
		N	705	705	705
	Save Today Save Tomorrow	Correlation Coefficient	.051	-.043	.067
		Sig. (2-tailed)	.155	.218	.066
		N	705	705	705
	Savers report	Correlation Coefficient	.000	.018	.007
		Sig. (2-tailed)	.996	.607	.842
		N	705	705	705
	Energy for Good	Correlation Coefficient	.001	.040	-.029
		Sig. (2-tailed)	.971	.252	.433
		N	705	705	705
	HEC report	Correlation Coefficient	.014	.017	.020
		Sig. (2-tailed)	.692	.630	.589
		N	705	705	705

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Renewable energy technology programmes

Correlations

			Gender	Age (Binned)
Kendall's tau_b	PV	Correlation Coefficient	.020	.022
		Sig. (2-tailed)	.605	.523
		N	702	678
	Clear Skies	Correlation Coefficient	-.009	-.010
		Sig. (2-tailed)	.808	.781
		N	702	678
	LCBP	Correlation Coefficient	.067	.018
		Sig. (2-tailed)	.077	.606
		N	702	678

The Chi-square test of independence for participation rates in programmes (Question B2) and respondents' gender (Question D10), age (Question D11) and economic status (Question D12)

Insulation and appliances programmes

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Warm Front * Gender	702	97.4%	19	2.6%	721	100.0%
Warm Front * Age (Binned)	678	94.0%	43	6.0%	721	100.0%
Warm Front * Economic Status	699	96.9%	22	3.1%	721	100.0%
WHGH * Gender	702	97.4%	19	2.6%	721	100.0%
WHGH * Age (Binned)	678	94.0%	43	6.0%	721	100.0%
WHGH * Economic Status	699	96.9%	22	3.1%	721	100.0%
Cocoon * Gender	702	97.4%	19	2.6%	721	100.0%
Cocoon * Age (Binned)	678	94.0%	43	6.0%	721	100.0%
Cocoon * Economic Status	699	96.9%	22	3.1%	721	100.0%
Eon insulation * Gender	702	97.4%	19	2.6%	721	100.0%
Eon insulation * Age (Binned)	678	94.0%	43	6.0%	721	100.0%
Eon insulation * Economic Status	699	96.9%	22	3.1%	721	100.0%
BG insulation * Gender	702	97.4%	19	2.6%	721	100.0%
BG insulation * Age (Binned)	678	94.0%	43	6.0%	721	100.0%
BG insulation * Economic Status	699	96.9%	22	3.1%	721	100.0%
BGBS * Gender	702	97.4%	19	2.6%	721	100.0%
BGBS * Age (Binned)	678	94.0%	43	6.0%	721	100.0%
BGBS * Economic Status	699	96.9%	22	3.1%	721	100.0%
Energy Labelling of White Goods * Gender	702	97.4%	19	2.6%	721	100.0%
Energy Labelling of White Goods * Age (Binned)	678	94.0%	43	6.0%	721	100.0%

Energy Labelling of White Goods * Economic Status	699	96.9%	22	3.1%	721	100.0%
Council cfls * Gender	702	97.4%	19	2.6%	721	100.0%
Council cfls * Age (Binned)	678	94.0%	43	6.0%	721	100.0%
Council cfls * Economic Status	699	96.9%	22	3.1%	721	100.0%
Suppliers cfls * Gender	702	97.4%	19	2.6%	721	100.0%
Suppliers cfls * Age (Binned)	678	94.0%	43	6.0%	721	100.0%
Suppliers cfls * Economic Status	699	96.9%	22	3.1%	721	100.0%

Warm Front * Gender

Crosstab

			Gender		
			1 male	2 female	Total
Warm Front	1 yes	Count	32	33	65
		% within Warm Front	49.2%	50.8%	100.0%
		% within Gender	9.6%	8.9%	9.3%
		% of Total	4.6%	4.7%	9.3%
	2 no	Count	301	336	637
		% within Warm Front	47.3%	52.7%	100.0%
		% within Gender	90.4%	91.1%	90.7%
		% of Total	42.9%	47.9%	90.7%
	Total	Count	333	369	702
		% within Warm Front	47.4%	52.6%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	47.4%	52.6%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.093[a]	1	.761		
Continuity Correction[b]	.030	1	.862		
Likelihood Ratio	.092	1	.761		
Fisher's Exact Test				.795	.430
Linear-by-Linear Association	.092	1	.761		
N of Valid Cases	702				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 30.83.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.011	.761
	Cramer's V	.011	.761
	N of Valid Cases	702	

Warm Front * Age (Binned)

Crosstab

			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Warm Front	1 yes	Count	26	15	12	9	62
		% within Warm Front	41.9%	24.2%	19.4%	14.5%	100.0%
		% within Age (Binned)	14.2%	9.6%	6.5%	5.8%	9.1%
		% of Total	3.8%	2.2%	1.8%	1.3%	9.1%
	2 no	Count	157	142	172	145	616
		% within Warm Front	25.5%	23.1%	27.9%	23.5%	100.0%
		% within Age (Binned)	85.8%	90.4%	93.5%	94.2%	90.9%
		% of Total	23.2%	20.9%	25.4%	21.4%	90.9%
	Total	Count	183	157	184	154	678
		% within Warm Front	27.0%	23.2%	27.1%	22.7%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	27.0%	23.2%	27.1%	22.7%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)

Pearson Chi-Square	9.221[a]	3	.026
Likelihood Ratio	8.905	3	.031
Linear-by-Linear Association	8.397	1	.004
N of Valid Cases	678		
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 14.08.			

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.117	.026
	Cramer's V	.117	.026
	N of Valid Cases	678	

Warm Front * Economic Status

Crosstab

			Economic Status			
			1 employed	2 retired	3 other	Total
Warm Front	1 yes	Count	20	38	6	64
		% within Warm Front	31.3%	59.4%	9.4%	100.0%
		% within Economic Status	5.1%	14.6%	14.3%	9.2%
		% of Total	2.9%	5.4%	.9%	9.2%
	2 no	Count	376	223	36	635
		% within Warm Front	59.2%	35.1%	5.7%	100.0%
		% within Economic Status	94.9%	85.4%	85.7%	90.8%
		% of Total	53.8%	31.9%	5.2%	90.8%
	Total	Count	396	261	42	699
		% within Warm Front	56.7%	37.3%	6.0%	100.0%
		% within Economic Status	100.0%	100.0%	100.0%	100.0%
		% of Total	56.7%	37.3%	6.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.515[a]	2	.000
Likelihood Ratio	18.497	2	.000
Linear-by-Linear Association	15.731	1	.000
N of Valid Cases	699		
a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 3.85.			

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.163	.000
	Cramer's V	.163	.000
	N of Valid Cases	699	

WHGH * Gender

Crosstab

			Gender		
			1 male	2 female	Total
WHGH	1 yes	Count	37	26	63
		% within WHGH	58.7%	41.3%	100.0%
		% within Gender	11.1%	7.0%	9.0%
		% of Total	5.3%	3.7%	9.0%
	2 no	Count	296	343	639
		% within WHGH	46.3%	53.7%	100.0%
		% within Gender	88.9%	93.0%	91.0%
		% of Total	42.2%	48.9%	91.0%
	Total	Count	333	369	702
		% within WHGH	47.4%	52.6%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	47.4%	52.6%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig.	Exact Sig.	Exact Sig.

			(2-sided)	(2-sided)	(1-sided)
Pearson Chi-Square	3.541[a]	1	.060		
Continuity Correction[b]	3.061	1	.080		
Likelihood Ratio	3.544	1	.060		
Fisher's Exact Test				.065	.040
Linear-by-Linear Association	3.536	1	.060		
N of Valid Cases	702				
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 29.88.					
b. Computed only for a 2x2 table					

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.071	.060
	Cramer's V	.071	.060
	N of Valid Cases	702	

WHGH * Age (Binned)

Crosstab							
			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
WHGH	1 yes	Count	21	20	14	6	61
		% within WHGH	34.4%	32.8%	23.0%	9.8%	100.0%
		% within Age (Binned)	11.5%	12.7%	7.6%	3.9%	9.0%
		% of Total	3.1%	2.9%	2.1%	.9%	9.0%
	2 no	Count	162	137	170	148	617
		% within WHGH	26.3%	22.2%	27.6%	24.0%	100.0%
		% within Age (Binned)	88.5%	87.3%	92.4%	96.1%	91.0%
		% of Total	23.9%	20.2%	25.1%	21.8%	91.0%
	Total	Count	183	157	184	154	678
		% within WHGH	27.0%	23.2%	27.1%	22.7%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	27.0%	23.2%	27.1%	22.7%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.385[a]	3	.025
Likelihood Ratio	10.234	3	.017
Linear-by-Linear Association	7.528	1	.006
N of Valid Cases	678		
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 13.86.			

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.118	.025
	Cramer's V	.118	.025
	N of Valid Cases	678	

WHGH * Economic Status

Crosstab						
			Economic Status			
			1 employed	2 retired	3 other	Total
WHGH	1 yes	Count	28	34	1	63
		% within WHGH	44.4%	54.0%	1.6%	100.0%
		% within Economic Status	7.1%	13.0%	2.4%	9.0%
		% of Total	4.0%	4.9%	.1%	9.0%
	2 no	Count	368	227	41	636
		% within WHGH	57.9%	35.7%	6.4%	100.0%
		% within Economic Status	92.9%	87.0%	97.6%	91.0%
		% of Total	52.6%	32.5%	5.9%	91.0%
	Total	Count	396	261	42	699
		% within WHGH	56.7%	37.3%	6.0%	100.0%
		% within Economic Status	100.0%	100.0%	100.0%	100.0%
		% of Total	56.7%	37.3%	6.0%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.202[a]	2	.010
Likelihood Ratio	9.625	2	.008
Linear-by-Linear Association	1.133	1	.287
N of Valid Cases	699		
a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 3.79.			

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.115	.010
	Cramer's V	.115	.010
	N of Valid Cases	699	

Cocoon * Gender

Crosstab					
			Gender		
			1 male	2 female	Total
Cocoon	1 yes	Count	4	6	10
		% within Cocoon	40.0%	60.0%	100.0%
		% within Gender	1.2%	1.6%	1.4%
		% of Total	.6%	.9%	1.4%
	2 no	Count	329	363	692
		% within Cocoon	47.5%	52.5%	100.0%
		% within Gender	98.8%	98.4%	98.6%
		% of Total	46.9%	51.7%	98.6%
	Total	Count	333	369	702
		% within Cocoon	47.4%	52.6%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	47.4%	52.6%	100.0%

Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.225[a]	1	.635		
Continuity Correction[b]	.024	1	.877		
Likelihood Ratio	.227	1	.634		
Fisher's Exact Test				.755	.441
Linear-by-Linear Association	.225	1	.636		
N of Valid Cases	702				
a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 4.74.					
b. Computed only for a 2x2 table					

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	-.018	.635
	Cramer's V	.018	.635
	N of Valid Cases	702	

Cocoon * Age (Binned)

Crosstab							
			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Cocoon	1 yes	Count	1	2	3	4	10
		% within Cocoon	10.0%	20.0%	30.0%	40.0%	100.0%
		% within Age (Binned)	.5%	1.3%	1.6%	2.6%	1.5%
		% of Total	.1%	.3%	.4%	.6%	1.5%
	2 no	Count	182	155	181	150	668
		% within Cocoon	27.2%	23.2%	27.1%	22.5%	100.0%
		% within Age (Binned)	99.5%	98.7%	98.4%	97.4%	98.5%
		% of Total	26.8%	22.9%	26.7%	22.1%	98.5%
	Total	Count	183	157	184	154	678

		% within Cocoon	27.0%	23.2%	27.1%	22.7%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	27.0%	23.2%	27.1%	22.7%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.495[a]	3	.476
Likelihood Ratio	2.593	3	.459
Linear-by-Linear Association	2.417	1	.120
N of Valid Cases	678		

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is 2.27.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.061	.476
	Cramer's V	.061	.476
	N of Valid Cases	678	

Cocoon * Economic Status

Crosstab

			Economic Status			
			1 employed	2 retired	3 other	Total
Cocoon	1 yes	Count	7	2	1	10
		% within Cocoon	70.0%	20.0%	10.0%	100.0%
		% within Economic Status	1.8%	.8%	2.4%	1.4%
		% of Total	1.0%	.3%	.1%	1.4%
	2 no	Count	389	259	41	689
		% within Cocoon	56.5%	37.6%	6.0%	100.0%
		% within Economic Status	98.2%	99.2%	97.6%	98.6%
		% of Total	55.7%	37.1%	5.9%	98.6%
	Total	Count	396	261	42	699
		% within Cocoon	56.7%	37.3%	6.0%	100.0%
		% within Economic Status	100.0%	100.0%	100.0%	100.0%
		% of Total	56.7%	37.3%	6.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.405[a]	2	.495
Likelihood Ratio	1.504	2	.472
Linear-by-Linear Association	.240	1	.624
N of Valid Cases	699		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is .60.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.045	.495
	Cramer's V	.045	.495
	N of Valid Cases	699	

Eon insulation * Gender

Crosstab

			Gender		
			1 male	2 female	Total
Eon insulation	1 yes	Count	12	4	16
		% within Eon insulation	75.0%	25.0%	100.0%
		% within Gender	3.6%	1.1%	2.3%
		% of Total	1.7%	.6%	2.3%
	2 no	Count	321	365	686
		% within Eon insulation	46.8%	53.2%	100.0%
		% within Gender	96.4%	98.9%	97.7%
		% of Total	45.7%	52.0%	97.7%

	Total	Count	333	369	702
		% within Eon insulation	47.4%	52.6%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	47.4%	52.6%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.989[a]	1	.026		
Continuity Correction[b]	3.922	1	.048		
Likelihood Ratio	5.163	1	.023		
Fisher's Exact Test				.040	.023
Linear-by-Linear Association	4.982	1	.026		
N of Valid Cases	702				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.59.
b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.084	.026
	Cramer's V	.084	.026
	N of Valid Cases	702	

Eon Insulation * Age (Binned)

Crosstab

			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Eon insulation	1 yes	Count	7	2	3	4	16
		% within Eon insulation	43.8%	12.5%	18.8%	25.0%	100.0%
		% within Age (Binned)	3.8%	1.3%	1.6%	2.6%	2.4%
		% of Total	1.0%	.3%	.4%	.6%	2.4%
	2 no	Count	176	155	181	150	662
		% within Eon insulation	26.6%	23.4%	27.3%	22.7%	100.0%
		% within Age (Binned)	96.2%	98.7%	98.4%	97.4%	97.6%
		% of Total	26.0%	22.9%	26.7%	22.1%	97.6%
	Total	Count	183	157	184	154	678
		% within Eon insulation	27.0%	23.2%	27.1%	22.7%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	27.0%	23.2%	27.1%	22.7%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.971[a]	3	.396
Likelihood Ratio	2.914	3	.405
Linear-by-Linear Association	.558	1	.455
N of Valid Cases	678		

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is 3.63.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.066	.396
	Cramer's V	.066	.396
	N of Valid Cases	678	

Eon Insulation * Economic Status

Crosstab

			Economic Status			
			1 employed	2 retired	3 other	Total
Eon insulation	1 yes	Count	8	8	0	16
		% within Eon insulation	50.0%	50.0%	.0%	100.0%
		% within Economic Status	2.0%	3.1%	.0%	2.3%
		% of Total	1.1%	1.1%	.0%	2.3%
	2 no	Count	388	253	42	683

		% within Eon insulation	56.8%	37.0%	6.1%	100.0%
		% within Economic Status	98.0%	96.9%	100.0%	97.7%
		% of Total	55.5%	36.2%	6.0%	97.7%
	Total	Count	396	261	42	699
		% within Eon insulation	56.7%	37.3%	6.0%	100.0%
		% within Economic Status	100.0%	100.0%	100.0%	100.0%
		% of Total	56.7%	37.3%	6.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.815[a]	2	.404
Likelihood Ratio	2.715	2	.257
Linear-by-Linear Association	.002	1	.966
N of Valid Cases	699		

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is .96.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.051	.404
	Cramer's V	.051	.404
N of Valid Cases		699	

BG Insulation * Gender

Crosstab

			Gender		
			1 male	2 female	Total
BG insulation	1 yes	Count	26	21	47
		% within BG insulation	55.3%	44.7%	100.0%
		% within Gender	7.8%	5.7%	6.7%
		% of Total	3.7%	3.0%	6.7%
	2 no	Count	307	348	655
		% within BG insulation	46.9%	53.1%	100.0%
		% within Gender	92.2%	94.3%	93.3%
		% of Total	43.7%	49.6%	93.3%
	Total	Count	333	369	702
		% within BG insulation	47.4%	52.6%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	47.4%	52.6%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.255[a]	1	.263		
Continuity Correction[b]	.939	1	.332		
Likelihood Ratio	1.254	1	.263		
Fisher's Exact Test				.292	.166
Linear-by-Linear Association	1.254	1	.263		
N of Valid Cases	702				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 22.29.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.042	.263
	Cramer's V	.042	.263
N of Valid Cases		702	

BG Insulation * Age (Binned)

Crosstab

			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
BG insulation	1 yes	Count	17	16	8	5	46
		% within BG insulation	37.0%	34.8%	17.4%	10.9%	100.0%

		% within Age (Binned)	9.3%	10.2%	4.3%	3.2%	6.8%
		% of Total	2.5%	2.4%	1.2%	.7%	6.8%
	2 no	Count	166	141	176	149	632
		% within BG insulation	26.3%	22.3%	27.8%	23.6%	100.0%
		% within Age (Binned)	90.7%	89.8%	95.7%	96.8%	93.2%
		% of Total	24.5%	20.8%	26.0%	22.0%	93.2%
	Total	Count	183	157	184	154	678
		% within BG insulation	27.0%	23.2%	27.1%	22.7%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	27.0%	23.2%	27.1%	22.7%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.472[a]	3	.024
Likelihood Ratio	9.856	3	.020
Linear-by-Linear Association	7.472	1	.006
N of Valid Cases	678		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 10.45.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.118	.024
	Cramer's V	.118	.024
	N of Valid Cases	678	

BG Insulation * Economic Status

Crosstab

			Economic Status			
			1 employed	2 retired	3 other	Total
BG insulation	1 yes	Count	22	25	0	47
		% within BG insulation	46.8%	53.2%	.0%	100.0%
		% within Economic Status	5.6%	9.6%	.0%	6.7%
		% of Total	3.1%	3.6%	.0%	6.7%
	2 no	Count	374	236	42	652
		% within BG insulation	57.4%	36.2%	6.4%	100.0%
		% within Economic Status	94.4%	90.4%	100.0%	93.3%
		% of Total	53.5%	33.8%	6.0%	93.3%
	Total	Count	396	261	42	699
		% within BG insulation	56.7%	37.3%	6.0%	100.0%
		% within Economic Status	100.0%	100.0%	100.0%	100.0%
		% of Total	56.7%	37.3%	6.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.281[a]	2	.026
Likelihood Ratio	9.782	2	.008
Linear-by-Linear Association	.200	1	.655
N of Valid Cases	699		

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 2.82.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.102	.026
	Cramer's V	.102	.026
	N of Valid Cases	699	

BGBS * Gender

Crosstab

			Gender		
			1 male	2 female	Total
BGBS	1 yes	Count	1	0	1
		% within BGBS	100.0%	.0%	100.0%
		% within Gender	.3%	.0%	.1%
		% of Total	.1%	.0%	.1%

	2 no	Count	332	369	701
		% within BGBS	47.4%	52.6%	100.0%
		% within Gender	99.7%	100.0%	99.9%
		% of Total	47.3%	52.6%	99.9%
	Total	Count	333	369	702
		% within BGBS	47.4%	52.6%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	47.4%	52.6%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.110[a]	1	.292		
Continuity Correction[b]	.003	1	.959		
Likelihood Ratio	1.493	1	.222		
Fisher's Exact Test				.474	.474
Linear-by-Linear Association	1.108	1	.292		
N of Valid Cases	702				

a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is .47.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.040	.292
	Cramer's V	.040	.292
	N of Valid Cases	702	

BGBS * Age (Binned)

Crosstab

			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
BGBS	1 yes	Count	1	0	0	0	1
		% within BGBS	100.0%	.0%	.0%	.0%	100.0%
		% within Age (Binned)	.5%	.0%	.0%	.0%	.1%
		% of Total	.1%	.0%	.0%	.0%	.1%
	2 no	Count	182	157	184	154	677
		% within BGBS	26.9%	23.2%	27.2%	22.7%	100.0%
		% within Age (Binned)	99.5%	100.0%	100.0%	100.0%	99.9%
		% of Total	26.8%	23.2%	27.1%	22.7%	99.9%
	Total	Count	183	157	184	154	678
		% within BGBS	27.0%	23.2%	27.1%	22.7%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	27.0%	23.2%	27.1%	22.7%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.709[a]	3	.439
Likelihood Ratio	2.623	3	.453
Linear-by-Linear Association	1.706	1	.191
N of Valid Cases	678		

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .23.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.063	.439
	Cramer's V	.063	.439
	N of Valid Cases	678	

BGBS * Economic Status

Crosstab

			Economic Status			
			1 employed	2 retired	3 other	Total
BGBS	1 yes	Count	0	1	0	1

		% within BGBS	.0%	100.0%	.0%	100.0%
		% within Economic Status	.0%	.4%	.0%	.1%
		% of Total	.0%	.1%	.0%	.1%
	2 no	Count	396	260	42	698
		% within BGBS	56.7%	37.2%	6.0%	100.0%
		% within Economic Status	100.0%	99.6%	100.0%	99.9%
		% of Total	56.7%	37.2%	6.0%	99.9%
	Total	Count	396	261	42	699
		% within BGBS	56.7%	37.3%	6.0%	100.0%
		% within Economic Status	100.0%	100.0%	100.0%	100.0%
		% of Total	56.7%	37.3%	6.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.681[a]	2	.432
Likelihood Ratio	1.973	2	.373
Linear-by-Linear Association	.693	1	.405
N of Valid Cases	699		

a. 3 cells (50.0%) have expected count less than 5. The minimum expected count is .06.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.049	.432
	Cramer's V	.049	.432
	N of Valid Cases	699	

Energy Labelling of White Goods * Gender

Crosstab

			Gender		
			1 male	2 female	Total
Energy Labelling of White Goods	1 yes	Count	65	95	160
		% within Energy Labelling of White Goods	40.6%	59.4%	100.0%
		% within Gender	19.5%	25.7%	22.8%
		% of Total	9.3%	13.5%	22.8%
	2 no	Count	268	274	542
		% within Energy Labelling of White Goods	49.4%	50.6%	100.0%
		% within Gender	80.5%	74.3%	77.2%
		% of Total	38.2%	39.0%	77.2%
	Total	Count	333	369	702
		% within Energy Labelling of White Goods	47.4%	52.6%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	47.4%	52.6%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	3.855[a]	1	.050		
Continuity Correction[b]	3.510	1	.061		
Likelihood Ratio	3.878	1	.049		
Fisher's Exact Test				.058	.030
Linear-by-Linear Association	3.850	1	.050		
N of Valid Cases	702				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 75.90.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	-.074	.050
	Cramer's V	.074	.050
	N of Valid Cases	702	

Energy Labelling of White Goods * Age (Binned)

Crosstab

			Age (Binned)	

			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Energy Labelling of White Goods	1 yes	Count	28	51	43	35	157
		% within Energy Labelling of White Goods	17.8%	32.5%	27.4%	22.3%	100.0%
		% within Age (Binned)	15.3%	32.5%	23.4%	22.7%	23.2%
		% of Total	4.1%	7.5%	6.3%	5.2%	23.2%
	2 no	Count	155	106	141	119	521
		% within Energy Labelling of White Goods	29.8%	20.3%	27.1%	22.8%	100.0%
		% within Age (Binned)	84.7%	67.5%	76.6%	77.3%	76.8%
		% of Total	22.9%	15.6%	20.8%	17.6%	76.8%
	Total	Count	183	157	184	154	678
		% within Energy Labelling of White Goods	27.0%	23.2%	27.1%	22.7%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	27.0%	23.2%	27.1%	22.7%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.044[a]	3	.003
Likelihood Ratio	14.080	3	.003
Linear-by-Linear Association	1.205	1	.272
N of Valid Cases	678		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 35.66.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.144	.003
	Cramer's V	.144	.003
	N of Valid Cases	678	

Energy Labelling of White Goods * Economic Status

Crosstab

			Economic Status			
			1 employed	2 retired	3 other	Total
Energy Labelling of White Goods	1 yes	Count	100	53	7	160
		% within Energy Labelling of White Goods	62.5%	33.1%	4.4%	100.0%
		% within Economic Status	25.3%	20.3%	16.7%	22.9%
		% of Total	14.3%	7.6%	1.0%	22.9%
	2 no	Count	296	208	35	539
		% within Energy Labelling of White Goods	54.9%	38.6%	6.5%	100.0%
		% within Economic Status	74.7%	79.7%	83.3%	77.1%
		% of Total	42.3%	29.8%	5.0%	77.1%
	Total	Count	396	261	42	699
		% within Energy Labelling of White Goods	56.7%	37.3%	6.0%	100.0%
		% within Economic Status	100.0%	100.0%	100.0%	100.0%
		% of Total	56.7%	37.3%	6.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.161[a]	2	.206
Likelihood Ratio	3.229	2	.199
Linear-by-Linear Association	3.133	1	.077
N of Valid Cases	699		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 9.61.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.067	.206
	Cramer's V	.067	.206
	N of Valid Cases	699	

Council cfls * Gender

Crosstab

			Gender	

			1 male	2 female	Total
Council cfls	1 yes	Count	82	116	198
		% within Council cfls	41.4%	58.6%	100.0%
		% within Gender	24.6%	31.4%	28.2%
		% of Total	11.7%	16.5%	28.2%
	2 no	Count	251	253	504
		% within Council cfls	49.8%	50.2%	100.0%
		% within Gender	75.4%	68.6%	71.8%
		% of Total	35.8%	36.0%	71.8%
	Total	Count	333	369	702
		% within Council cfls	47.4%	52.6%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	47.4%	52.6%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.011[a]	1	.045		
Continuity Correction[b]	3.681	1	.055		
Likelihood Ratio	4.028	1	.045		
Fisher's Exact Test				.053	.027
Linear-by-Linear Association	4.005	1	.045		
N of Valid Cases	702				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 93.92.
b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	-.076	.045
	Cramer's V	.076	.045
	N of Valid Cases	702	

Council cfls * Age (Binned)

Crosstab

			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Council cfls	1 yes	Count	57	56	42	36	191
		% within Council cfls	29.8%	29.3%	22.0%	18.8%	100.0%
		% within Age (Binned)	31.1%	35.7%	22.8%	23.4%	28.2%
		% of Total	8.4%	8.3%	6.2%	5.3%	28.2%
	2 no	Count	126	101	142	118	487
		% within Council cfls	25.9%	20.7%	29.2%	24.2%	100.0%
		% within Age (Binned)	68.9%	64.3%	77.2%	76.6%	71.8%
		% of Total	18.6%	14.9%	20.9%	17.4%	71.8%
	Total	Count	183	157	184	154	678
		% within Council cfls	27.0%	23.2%	27.1%	22.7%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	27.0%	23.2%	27.1%	22.7%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.510[a]	3	.023
Likelihood Ratio	9.474	3	.024
Linear-by-Linear Association	5.291	1	.021
N of Valid Cases	678		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 43.38.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.118	.023
	Cramer's V	.118	.023
	N of Valid Cases	678	

Council cfls * Economic Status

Crosstab

			Economic Status			
			1 employed	2 retired	3 other	Total
Council cfls	1 yes	Count	92	91	15	198
		% within Council cfls	46.5%	46.0%	7.6%	100.0%
		% within Economic Status	23.2%	34.9%	35.7%	28.3%
		% of Total	13.2%	13.0%	2.1%	28.3%
	2 no	Count	304	170	27	501
		% within Council cfls	60.7%	33.9%	5.4%	100.0%
		% within Economic Status	76.8%	65.1%	64.3%	71.7%
		% of Total	43.5%	24.3%	3.9%	71.7%
Total		Count	396	261	42	699
		% within Council cfls	56.7%	37.3%	6.0%	100.0%
		% within Economic Status	100.0%	100.0%	100.0%	100.0%
		% of Total	56.7%	37.3%	6.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.688[a]	2	.003
Likelihood Ratio	11.621	2	.003
Linear-by-Linear Association	10.298	1	.001
N of Valid Cases	699		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 11.90.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.129	.003
	Cramer's V	.129	.003
	N of Valid Cases	699	

Suppliers cfls * Gender

Crosstab

			Gender		
			1 male	2 female	Total
Suppliers cfls	1 yes	Count	149	172	321
		% within Suppliers cfls	46.4%	53.6%	100.0%
		% within Gender	44.7%	46.6%	45.7%
		% of Total	21.2%	24.5%	45.7%
	2 no	Count	184	197	381
		% within Suppliers cfls	48.3%	51.7%	100.0%
		% within Gender	55.3%	53.4%	54.3%
		% of Total	26.2%	28.1%	54.3%
	Total	Count	333	369	702
		% within Suppliers cfls	47.4%	52.6%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	47.4%	52.6%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.246[a]	1	.620		
Continuity Correction[b]	.177	1	.674		
Likelihood Ratio	.246	1	.620		
Fisher's Exact Test				.649	.337
Linear-by-Linear Association	.246	1	.620		
N of Valid Cases	702				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 152.27.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	-.019	.620
	Cramer's V	.019	.620

	N of Valid Cases	702	

Suppliers cfls * Age (Binned)

Crosstab

			Age (Binned)				Total
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	
Suppliers cfls	1 yes	Count	93	81	75	60	309
		% within Suppliers cfls	30.1%	26.2%	24.3%	19.4%	100.0%
		% within Age (Binned)	50.8%	51.6%	40.8%	39.0%	45.6%
		% of Total	13.7%	11.9%	11.1%	8.8%	45.6%
	2 no	Count	90	76	109	94	369
		% within Suppliers cfls	24.4%	20.6%	29.5%	25.5%	100.0%
		% within Age (Binned)	49.2%	48.4%	59.2%	61.0%	54.4%
		% of Total	13.3%	11.2%	16.1%	13.9%	54.4%
	Total	Count	183	157	184	154	678
		% within Suppliers cfls	27.0%	23.2%	27.1%	22.7%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	27.0%	23.2%	27.1%	22.7%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.756[a]	3	.033
Likelihood Ratio	8.779	3	.032
Linear-by-Linear Association	7.206	1	.007
N of Valid Cases	678		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 70.19.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.114	.033
	Cramer's V	.114	.033
	N of Valid Cases	678	

Suppliers cfls * Economic Status

Crosstab

			Economic Status			Total
			1 employed	2 retired	3 other	
Suppliers cfls	1 yes	Count	161	136	23	320
		% within Suppliers cfls	50.3%	42.5%	7.2%	100.0%
		% within Economic Status	40.7%	52.1%	54.8%	45.8%
		% of Total	23.0%	19.5%	3.3%	45.8%
	2 no	Count	235	125	19	379
		% within Suppliers cfls	62.0%	33.0%	5.0%	100.0%
		% within Economic Status	59.3%	47.9%	45.2%	54.2%
		% of Total	33.6%	17.9%	2.7%	54.2%
	Total	Count	396	261	42	699
		% within Suppliers cfls	56.7%	37.3%	6.0%	100.0%
		% within Economic Status	100.0%	100.0%	100.0%	100.0%
		% of Total	56.7%	37.3%	6.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.762[a]	2	.008
Likelihood Ratio	9.769	2	.008
Linear-by-Linear Association	9.001	1	.003
N of Valid Cases	699		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 19.23.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.118	.008
	Cramer's V	.118	.008
	N of Valid Cases	699	

Advice and education programmes

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Are You Doing Your Bit? * Gender	702	97.4%	19	2.6%	721	100.0%
Are You Doing Your Bit? * Age (Binned)	678	94.0%	43	6.0%	721	100.0%
Are You Doing Your Bit? * Economic Status	699	96.9%	22	3.1%	721	100.0%
Commit 20% * Gender	702	97.4%	19	2.6%	721	100.0%
Commit 20% * Age (Binned)	678	94.0%	43	6.0%	721	100.0%
Commit 20% * Economic Status	699	96.9%	22	3.1%	721	100.0%
Act on CO_2 * Gender	702	97.4%	19	2.6%	721	100.0%
Act on CO_2 * Age (Binned)	678	94.0%	43	6.0%	721	100.0%
Act on CO_2 * Economic Status	699	96.9%	22	3.1%	721	100.0%
Save Today Save Tomorrow * Gender	702	97.4%	19	2.6%	721	100.0%
Save Today Save Tomorrow * Age (Binned)	678	94.0%	43	6.0%	721	100.0%
Save Today Save Tomorrow * Economic Status	699	96.9%	22	3.1%	721	100.0%
Savers report * Gender	702	97.4%	19	2.6%	721	100.0%
Savers report * Age (Binned)	678	94.0%	43	6.0%	721	100.0%
Savers report * Economic Status	699	96.9%	22	3.1%	721	100.0%
Energy for Good * Gender	702	97.4%	19	2.6%	721	100.0%
Energy for Good * Age (Binned)	678	94.0%	43	6.0%	721	100.0%
Energy for Good * Economic Status	699	96.9%	22	3.1%	721	100.0%
HEC report * Gender	702	97.4%	19	2.6%	721	100.0%
HEC report * Age (Binned)	678	94.0%	43	6.0%	721	100.0%
HEC report * Economic Status	699	96.9%	22	3.1%	721	100.0%

Are You Doing Your Bit? * Gender

Crosstab

			Gender		
			1 male	2 female	Total
Are You Doing Your Bit?	1 yes	Count	13	17	30
		% within Are You Doing Your Bit?	43.3%	56.7%	100.0%
		% within Gender	3.9%	4.6%	4.3%
		% of Total	1.9%	2.4%	4.3%
	2 no	Count	320	352	672
		% within Are You Doing Your Bit?	47.6%	52.4%	100.0%
		% within Gender	96.1%	95.4%	95.7%
		% of Total	45.6%	50.1%	95.7%
	Total	Count	333	369	702
		% within Are You Doing Your Bit?	47.4%	52.6%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	47.4%	52.6%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.212[a]	1	.646		
Continuity Correction[b]	.075	1	.785		
Likelihood Ratio	.212	1	.645		
Fisher's Exact Test				.711	.394
Linear-by-Linear Association	.211	1	.646		
N of Valid Cases	702				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 14.23.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	-.017	.646
	Cramer's V	.017	.646
N of Valid Cases			

	N of Valid Cases	702	

Are You Doing Your Bit? * Age (Binned)

Crosstab

			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Are You Doing Your Bit?	1 yes	Count	17	3	3	6	29
		% within Are You Doing Your Bit?	58.6%	10.3%	10.3%	20.7%	100.0%
		% within Age (Binned)	9.3%	1.9%	1.6%	3.9%	4.3%
		% of Total	2.5%	.4%	.4%	.9%	4.3%
	2 no	Count	166	154	181	148	649
		% within Are You Doing Your Bit?	25.6%	23.7%	27.9%	22.8%	100.0%
		% within Age (Binned)	90.7%	98.1%	98.4%	96.1%	95.7%
		% of Total	24.5%	22.7%	26.7%	21.8%	95.7%
	Total	Count	183	157	184	154	678
		% within Are You Doing Your Bit?	27.0%	23.2%	27.1%	22.7%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	27.0%	23.2%	27.1%	22.7%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	16.580[a]	3	.001
Likelihood Ratio	15.344	3	.002
Linear-by-Linear Association	6.705	1	.010
N of Valid Cases	678		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.59.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.156	.001
	Cramer's V	.156	.001
	N of Valid Cases	678	

Are You Doing Your Bit? * Economic Status

Crosstab

			Economic Status			
			1 employed	2 retired	3 other	Total
Are You Doing Your Bit?	1 yes	Count	10	19	1	30
		% within Are You Doing Your Bit?	33.3%	63.3%	3.3%	100.0%
		% within Economic Status	2.5%	7.3%	2.4%	4.3%
		% of Total	1.4%	2.7%	.1%	4.3%
	2 no	Count	386	242	41	669
		% within Are You Doing Your Bit?	57.7%	36.2%	6.1%	100.0%
		% within Economic Status	97.5%	92.7%	97.6%	95.7%
		% of Total	55.2%	34.6%	5.9%	95.7%
	Total	Count	396	261	42	699
		% within Are You Doing Your Bit?	56.7%	37.3%	6.0%	100.0%
		% within Economic Status	100.0%	100.0%	100.0%	100.0%
		% of Total	56.7%	37.3%	6.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.054[a]	2	.011
Likelihood Ratio	8.682	2	.013
Linear-by-Linear Association	3.604	1	.058
N of Valid Cases	699		

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 1.80.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.114	.011
	Cramer's V	.114	.011
	N of Valid Cases	699	

*Commit 20% * Gender*

Crosstab

			Gender		
			1 male	2 female	Total
Commit 20%	1 yes	Count	5	7	12
		% within Commit 20%	41.7%	58.3%	100.0%
		% within Gender	1.5%	1.9%	1.7%
		% of Total	.7%	1.0%	1.7%
	2 no	Count	328	362	690
		% within Commit 20%	47.5%	52.5%	100.0%
		% within Gender	98.5%	98.1%	98.3%
		% of Total	46.7%	51.6%	98.3%
	Total	Count	333	369	702
		% within Commit 20%	47.4%	52.6%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	47.4%	52.6%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.163[a]	1	.686		
Continuity Correction[b]	.013	1	.911		
Likelihood Ratio	.164	1	.686		
Fisher's Exact Test				.776	.458
Linear-by-Linear Association	.163	1	.687		
N of Valid Cases	702				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.69.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	-.015	.686
	Cramer's V	.015	.686
	N of Valid Cases	702	

*Commit 20% * Age (Binned)*

Crosstab

			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Commit 20%	1 yes	Count	4	4	1	3	12
		% within Commit 20%	33.3%	33.3%	8.3%	25.0%	100.0%
		% within Age (Binned)	2.2%	2.5%	.5%	1.9%	1.8%
		% of Total	.6%	.6%	.1%	.4%	1.8%
	2 no	Count	179	153	183	151	666
		% within Commit 20%	26.9%	23.0%	27.5%	22.7%	100.0%
		% within Age (Binned)	97.8%	97.5%	99.5%	98.1%	98.2%
		% of Total	26.4%	22.6%	27.0%	22.3%	98.2%
	Total	Count	183	157	184	154	678
		% within Commit 20%	27.0%	23.2%	27.1%	22.7%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	27.0%	23.2%	27.1%	22.7%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.348[a]	3	.503
Likelihood Ratio	2.858	3	.414
Linear-by-Linear Association	.416	1	.519
N of Valid Cases	678		

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is 2.73.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.059	.503
	Cramer's V	.059	.503
	N of Valid Cases	678	

Commit 20% * Economic Status

Crosstab

			Economic Status			
			1 employed	2 retired	3 other	Total
Commit 20%	1 yes	Count	5	6	1	12
		% within Commit 20%	41.7%	50.0%	8.3%	100.0%
		% within Economic Status	1.3%	2.3%	2.4%	1.7%
		% of Total	.7%	.9%	.1%	1.7%
	2 no	Count	391	255	41	687
		% within Commit 20%	56.9%	37.1%	6.0%	100.0%
		% within Economic Status	98.7%	97.7%	97.6%	98.3%
		% of Total	55.9%	36.5%	5.9%	98.3%
	Total	Count	396	261	42	699
		% within Commit 20%	56.7%	37.3%	6.0%	100.0%
		% within Economic Status	100.0%	100.0%	100.0%	100.0%
		% of Total	56.7%	37.3%	6.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.118[a]	2	.572
Likelihood Ratio	1.105	2	.576
Linear-by-Linear Association	.987	1	.320
N of Valid Cases	699		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is .72.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.040	.572
	Cramer's V	.040	.572
	N of Valid Cases	699	

Act on CO_2 * Gender

Crosstab

			Gender		
			1 male	2 female	Total
Act on CO_2	1 yes	Count	15	12	27
		% within Act on CO_2	55.6%	44.4%	100.0%
		% within Gender	4.5%	3.3%	3.8%
		% of Total	2.1%	1.7%	3.8%
	2 no	Count	318	357	675
		% within Act on CO_2	47.1%	52.9%	100.0%
		% within Gender	95.5%	96.7%	96.2%
		% of Total	45.3%	50.9%	96.2%
	Total	Count	333	369	702
		% within Act on CO_2	47.4%	52.6%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	47.4%	52.6%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.742[a]	1	.389		
Continuity Correction[b]	.442	1	.506		
Likelihood Ratio	.742	1	.389		
Fisher's Exact Test				.435	.253
Linear-by-Linear Association	.741	1	.389		

N of Valid Cases	702				
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 12.81.					
b. Computed only for a 2x2 table					

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.033	.389
	Cramer's V	.033	.389
	N of Valid Cases	702	

Act on CO_2 * Age (Binned)

Crosstab

			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Act on CO_2	1 yes	Count	6	4	7	10	27
		% within Act on CO_2	22.2%	14.8%	25.9%	37.0%	100.0%
		% within Age (Binned)	3.3%	2.5%	3.8%	6.5%	4.0%
		% of Total	.9%	.6%	1.0%	1.5%	4.0%
	2 no	Count	177	153	177	144	651
		% within Act on CO_2	27.2%	23.5%	27.2%	22.1%	100.0%
		% within Age (Binned)	96.7%	97.5%	96.2%	93.5%	96.0%
		% of Total	26.1%	22.6%	26.1%	21.2%	96.0%
	Total	Count	183	157	184	154	678
		% within Act on CO_2	27.0%	23.2%	27.1%	22.7%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	27.0%	23.2%	27.1%	22.7%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.637[a]	3	.303
Likelihood Ratio	3.378	3	.337
Linear-by-Linear Association	2.344	1	.126
N of Valid Cases	678		
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.13.			

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.073	.303
	Cramer's V	.073	.303
	N of Valid Cases	678	

Act on CO_2 * Economic Status

Crosstab

			Economic Status			
			1 employed	2 retired	3 other	Total
Act on CO_2	1 yes	Count	17	8	2	27
		% within Act on CO_2	63.0%	29.6%	7.4%	100.0%
		% within Economic Status	4.3%	3.1%	4.8%	3.9%
		% of Total	2.4%	1.1%	.3%	3.9%
	2 no	Count	379	253	40	672
		% within Act on CO_2	56.4%	37.6%	6.0%	100.0%
		% within Economic Status	95.7%	96.9%	95.2%	96.1%
		% of Total	54.2%	36.2%	5.7%	96.1%
	Total	Count	396	261	42	699
		% within Act on CO_2	56.7%	37.3%	6.0%	100.0%
		% within Economic Status	100.0%	100.0%	100.0%	100.0%
		% of Total	56.7%	37.3%	6.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.736[a]	2	.692
Likelihood Ratio	.756	2	.685
Linear-by-Linear Association	.183	1	.669

N of Valid Cases	699			
a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 1.62.				

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.032	.692
	Cramer's V	.032	.692
	N of Valid Cases	699	

Save Today Save Tomorrow * Gender

Crosstab					
			Gender		
			1 male	2 female	Total
Save Today Save Tomorrow	1 yes	Count	5	9	14
		% within Save Today Save Tomorrow	35.7%	64.3%	100.0%
		% within Gender	1.5%	2.4%	2.0%
		% of Total	.7%	1.3%	2.0%
	2 no	Count	328	360	688
		% within Save Today Save Tomorrow	47.7%	52.3%	100.0%
		% within Gender	98.5%	97.6%	98.0%
		% of Total	46.7%	51.3%	98.0%
	Total	Count	333	369	702
		% within Save Today Save Tomorrow	47.4%	52.6%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	47.4%	52.6%	100.0%

Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.787[a]	1	.375		
Continuity Correction[b]	.381	1	.537		
Likelihood Ratio	.801	1	.371		
Fisher's Exact Test				.428	.270
Linear-by-Linear Association	.786	1	.375		
N of Valid Cases	702				
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.64.					
b. Computed only for a 2x2 table					

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	-.033	.375
	Cramer's V	.033	.375
	N of Valid Cases	702	

Save Today Save Tomorrow * Age (Binned)

Crosstab							
			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Save Today Save Tomorrow	1 yes	Count	6	1	4	3	14
		% within Save Today Save Tomorrow	42.9%	7.1%	28.6%	21.4%	100.0%
		% within Age (Binned)	3.3%	.6%	2.2%	1.9%	2.1%
		% of Total	.9%	.1%	.6%	.4%	2.1%
	2 no	Count	177	156	180	151	664
		% within Save Today Save Tomorrow	26.7%	23.5%	27.1%	22.7%	100.0%
		% within Age (Binned)	96.7%	99.4%	97.8%	98.1%	97.9%
		% of Total	26.1%	23.0%	26.5%	22.3%	97.9%
	Total	Count	183	157	184	154	678
		% within Save Today Save Tomorrow	27.0%	23.2%	27.1%	22.7%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	27.0%	23.2%	27.1%	22.7%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.937[a]	3	.401
Likelihood Ratio	3.319	3	.345
Linear-by-Linear Association	.332	1	.564
N of Valid Cases	678		
a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is 3.18.			

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.066	.401
	Cramer's V	.066	.401
	N of Valid Cases	678	

Save Today Save Tomorrow * Economic Status

Crosstab						
			Economic Status			
			1 employed	2 retired	3 other	Total
Save Today Save Tomorrow	1 yes	Count	7	6	1	14
		% within Save Today Save Tomorrow	50.0%	42.9%	7.1%	100.0%
		% within Economic Status	1.8%	2.3%	2.4%	2.0%
		% of Total	1.0%	.9%	.1%	2.0%
	2 no	Count	389	255	41	685
		% within Save Today Save Tomorrow	56.8%	37.2%	6.0%	100.0%
		% within Economic Status	98.2%	97.7%	97.6%	98.0%
		% of Total	55.7%	36.5%	5.9%	98.0%
	Total	Count	396	261	42	699
		% within Save Today Save Tomorrow	56.7%	37.3%	6.0%	100.0%
		% within Economic Status	100.0%	100.0%	100.0%	100.0%
		% of Total	56.7%	37.3%	6.0%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.259[a]	2	.879
Likelihood Ratio	.256	2	.880
Linear-by-Linear Association	.234	1	.629
N of Valid Cases	699		
a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is .84.			

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.019	.879
	Cramer's V	.019	.879
	N of Valid Cases	699	

Savers report * Gender

Crosstab					
			Gender		
			1 male	2 female	Total
Savers report	1 yes	Count	20	18	38
		% within Savers report	52.6%	47.4%	100.0%
		% within Gender	6.0%	4.9%	5.4%
		% of Total	2.8%	2.6%	5.4%
	2 no	Count	313	351	664
		% within Savers report	47.1%	52.9%	100.0%
		% within Gender	94.0%	95.1%	94.6%
		% of Total	44.6%	50.0%	94.6%
	Total	Count	333	369	702
		% within Savers report	47.4%	52.6%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	47.4%	52.6%	100.0%

Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.435[a]	1	.510		
Continuity Correction[b]	.243	1	.622		
Likelihood Ratio	.434	1	.510		
Fisher's Exact Test				.617	.311
Linear-by-Linear Association	.434	1	.510		
N of Valid Cases	702				
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 18.03.					
b. Computed only for a 2x2 table					

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.025	.510
	Cramer's V	.025	.510
	N of Valid Cases	702	

Savers report * Age (Binned)

Crosstab							
			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Savers report	1 yes	Count	9	15	10	4	38
		% within Savers report	23.7%	39.5%	26.3%	10.5%	100.0%
		% within Age (Binned)	4.9%	9.6%	5.4%	2.6%	5.6%
		% of Total	1.3%	2.2%	1.5%	.6%	5.6%
	2 no	Count	174	142	174	150	640
		% within Savers report	27.2%	22.2%	27.2%	23.4%	100.0%
		% within Age (Binned)	95.1%	90.4%	94.6%	97.4%	94.4%
		% of Total	25.7%	20.9%	25.7%	22.1%	94.4%
	Total	Count	183	157	184	154	678
		% within Savers report	27.0%	23.2%	27.1%	22.7%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	27.0%	23.2%	27.1%	22.7%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.434[a]	3	.059
Likelihood Ratio	7.299	3	.063
Linear-by-Linear Association	1.551	1	.213
N of Valid Cases	678		
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 8.63.			

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.105	.059
	Cramer's V	.105	.059
	N of Valid Cases	678	

Savers report * Economic Status

Crosstab						
			Economic Status			
			1 employed	2 retired	3 other	Total
Savers report	1 yes	Count	18	19	1	38
		% within Savers report	47.4%	50.0%	2.6%	100.0%
		% within Economic Status	4.5%	7.3%	2.4%	5.4%
		% of Total	2.6%	2.7%	.1%	5.4%
	2 no	Count	378	242	41	661
		% within Savers report	57.2%	36.6%	6.2%	100.0%
		% within Economic Status	95.5%	92.7%	97.6%	94.6%
		% of Total	54.1%	34.6%	5.9%	94.6%
	Total	Count	396	261	42	699
		% within Savers report	56.7%	37.3%	6.0%	100.0%

		% within Economic Status	100.0%	100.0%	100.0%	100.0%
		% of Total	56.7%	37.3%	6.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.099[a]	2	.212
Likelihood Ratio	3.170	2	.205
Linear-by-Linear Association	.378	1	.539
N of Valid Cases	699		

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 2.28.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.067	.212
	Cramer's V	.067	.212
	N of Valid Cases	699	

Energy for Good * Gender

Crosstab

			Gender		
			1 male	2 female	Total
Energy for Good	1 yes	Count	1	0	1
		% within Energy for Good	100.0%	.0%	100.0%
		% within Gender	.3%	.0%	.1%
		% of Total	.1%	.0%	.1%
	2 no	Count	332	369	701
		% within Energy for Good	47.4%	52.6%	100.0%
		% within Gender	99.7%	100.0%	99.9%
		% of Total	47.3%	52.6%	99.9%
	Total	Count	333	369	702
		% within Energy for Good	47.4%	52.6%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	47.4%	52.6%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.110[a]	1	.292		
Continuity Correction[b]	.003	1	.959		
Likelihood Ratio	1.493	1	.222		
Fisher's Exact Test				.474	.474
Linear-by-Linear Association	1.108	1	.292		
N of Valid Cases	702				

a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is .47.
b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.040	.292
	Cramer's V	.040	.292
	N of Valid Cases	702	

Energy for Good * Age (Binned)

Crosstab

			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Energy for Good	1 yes	Count	1	0	0	0	1
		% within Energy for Good	100.0%	.0%	.0%	.0%	100.0%
		% within Age (Binned)	.5%	.0%	.0%	.0%	.1%
		% of Total	.1%	.0%	.0%	.0%	.1%
	2 no	Count	182	157	184	154	677
		% within Energy for Good	26.9%	23.2%	27.2%	22.7%	100.0%
		% within Age (Binned)	99.5%	100.0%	100.0%	100.0%	99.9%

		% of Total	26.8%	23.2%	27.1%	22.7%	99.9%
	Total	Count	183	157	184	154	678
		% within Energy for Good	27.0%	23.2%	27.1%	22.7%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	27.0%	23.2%	27.1%	22.7%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.709[a]	3	.439
Likelihood Ratio	2.623	3	.453
Linear-by-Linear Association	1.706	1	.191
N of Valid Cases	678		

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .23.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.063	.439
	Cramer's V	.063	.439
	N of Valid Cases	678	

Energy for Good * Economic Status

Crosstab

			Economic Status			
			1 employed	2 retired	3 other	Total
Energy for Good	1 yes	Count	0	1	0	1
		% within Energy for Good	.0%	100.0%	.0%	100.0%
		% within Economic Status	.0%	.4%	.0%	.1%
		% of Total	.0%	.1%	.0%	.1%
	2 no	Count	396	260	42	698
		% within Energy for Good	56.7%	37.2%	6.0%	100.0%
		% within Economic Status	100.0%	99.6%	100.0%	99.9%
		% of Total	56.7%	37.2%	6.0%	99.9%
	Total	Count	396	261	42	699
		% within Energy for Good	56.7%	37.3%	6.0%	100.0%
		% within Economic Status	100.0%	100.0%	100.0%	100.0%
		% of Total	56.7%	37.3%	6.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.681[a]	2	.432
Likelihood Ratio	1.973	2	.373
Linear-by-Linear Association	.693	1	.405
N of Valid Cases	699		

a. 3 cells (50.0%) have expected count less than 5. The minimum expected count is .06.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.049	.432
	Cramer's V	.049	.432
	N of Valid Cases	699	

HEC report * Gender

Crosstab

			Gender		
			1 male	2 female	Total
HEC report	1 yes	Count	21	21	42
		% within HEC report	50.0%	50.0%	100.0%
		% within Gender	6.3%	5.7%	6.0%
		% of Total	3.0%	3.0%	6.0%
	2 no	Count	312	348	660
		% within HEC report	47.3%	52.7%	100.0%
		% within Gender	93.7%	94.3%	94.0%
		% of Total	44.4%	49.6%	94.0%
	Total	Count	333	369	702

		% within HEC report	47.4%	52.6%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	47.4%	52.6%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.118[a]	1	.731		
Continuity Correction[b]	.034	1	.854		
Likelihood Ratio	.118	1	.732		
Fisher's Exact Test				.752	.426
Linear-by-Linear Association	.118	1	.732		
N of Valid Cases	702				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 19.92.
b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.013	.731
	Cramer's V	.013	.731
	N of Valid Cases	702	

HEC report * Age (Binned)

Crosstab

			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
HEC report	1 yes	Count	14	12	6	8	40
		% within HEC report	35.0%	30.0%	15.0%	20.0%	100.0%
		% within Age (Binned)	7.7%	7.6%	3.3%	5.2%	5.9%
		% of Total	2.1%	1.8%	.9%	1.2%	5.9%
	2 no	Count	169	145	178	146	638
		% within HEC report	26.5%	22.7%	27.9%	22.9%	100.0%
		% within Age (Binned)	92.3%	92.4%	96.7%	94.8%	94.1%
		% of Total	24.9%	21.4%	26.3%	21.5%	94.1%
	Total	Count	183	157	184	154	678
		% within HEC report	27.0%	23.2%	27.1%	22.7%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	27.0%	23.2%	27.1%	22.7%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.316[a]	3	.229
Likelihood Ratio	4.593	3	.204
Linear-by-Linear Association	2.235	1	.135
N of Valid Cases	678		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 9.09.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.080	.229
	Cramer's V	.080	.229
	N of Valid Cases	678	

HEC report * Economic Status

Crosstab

			Economic Status			
			1 employed	2 retired	3 other	Total
HEC report	1 yes	Count	18	22	2	42
		% within HEC report	42.9%	52.4%	4.8%	100.0%
		% within Economic Status	4.5%	8.4%	4.8%	6.0%
		% of Total	2.6%	3.1%	.3%	6.0%
	2 no	Count	378	239	40	657
		% within HEC report	57.5%	36.4%	6.1%	100.0%

		% within Economic Status	95.5%	91.6%	95.2%	94.0%
		% of Total	54.1%	34.2%	5.7%	94.0%
	Total	Count	396	261	42	699
		% within HEC report	56.7%	37.3%	6.0%	100.0%
		% within Economic Status	100.0%	100.0%	100.0%	100.0%
		% of Total	56.7%	37.3%	6.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.324[a]	2	.115
Likelihood Ratio	4.179	2	.124
Linear-by-Linear Association	1.898	1	.168
N of Valid Cases	699		

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 2.52.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.079	.115
	Cramer's V	.079	.115
	N of Valid Cases	699	

Renewable energy technology programmes

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
PV * Gender	702	97.4%	19	2.6%	721	100.0%
PV * Age (Binned)	678	94.0%	43	6.0%	721	100.0%
PV * Economic Status	699	96.9%	22	3.1%	721	100.0%
Clear Skies * Gender	702	97.4%	19	2.6%	721	100.0%
Clear Skies * Age (Binned)	678	94.0%	43	6.0%	721	100.0%
Clear Skies * Economic Status	699	96.9%	22	3.1%	721	100.0%
LCBP * Gender	702	97.4%	19	2.6%	721	100.0%
LCBP * Age (Binned)	678	94.0%	43	6.0%	721	100.0%
LCBP * Economic Status	699	96.9%	22	3.1%	721	100.0%

PV * Gender

Crosstab

			Gender		
			1 male	2 female	Total
PV	1 yes	Count	4	3	7
		% within PV	57.1%	42.9%	100.0%
		% within Gender	1.2%	.8%	1.0%
		% of Total	.6%	.4%	1.0%
	2 no	Count	329	366	695
		% within PV	47.3%	52.7%	100.0%
		% within Gender	98.8%	99.2%	99.0%
		% of Total	46.9%	52.1%	99.0%
	Total	Count	333	369	702
		% within PV	47.4%	52.6%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	47.4%	52.6%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.267[a]	1	.605		
Continuity Correction[b]	.019	1	.891		
Likelihood Ratio	.267	1	.605		
Fisher's Exact Test				.713	.444
Linear-by-Linear Association	.267	1	.605		
N of Valid Cases	702				

a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 3.32.

b. Computed only for a 2x2 table

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.020	.605
	Cramer's V	.020	.605
	N of Valid Cases	702	

PV * Age (Binned)

Crosstab							
			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
PV	1 yes	Count	2	2	1	1	6
		% within PV	33.3%	33.3%	16.7%	16.7%	100.0%
		% within Age (Binned)	1.1%	1.3%	.5%	.6%	.9%
		% of Total	.3%	.3%	.1%	.1%	.9%
	2 no	Count	181	155	183	153	672
		% within PV	26.9%	23.1%	27.2%	22.8%	100.0%
		% within Age (Binned)	98.9%	98.7%	99.5%	99.4%	99.1%
		% of Total	26.7%	22.9%	27.0%	22.6%	99.1%
	Total	Count	183	157	184	154	678
		% within PV	27.0%	23.2%	27.1%	22.7%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	27.0%	23.2%	27.1%	22.7%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.703[a]	3	.872
Likelihood Ratio	.713	3	.870
Linear-by-Linear Association	.407	1	.524
N of Valid Cases	678		
a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is 1.36.			

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.032	.872
	Cramer's V	.032	.872
	N of Valid Cases	678	

PV * Economic Status

Crosstab						
			Economic Status			
			1 employed	2 retired	3 other	Total
PV	1 yes	Count	1	4	2	7
		% within PV	14.3%	57.1%	28.6%	100.0%
		% within Economic Status	.3%	1.5%	4.8%	1.0%
		% of Total	.1%	.6%	.3%	1.0%
	2 no	Count	395	257	40	692
		% within PV	57.1%	37.1%	5.8%	100.0%
		% within Economic Status	99.7%	98.5%	95.2%	99.0%
		% of Total	56.5%	36.8%	5.7%	99.0%
	Total	Count	396	261	42	699
		% within PV	56.7%	37.3%	6.0%	100.0%
		% within Economic Status	100.0%	100.0%	100.0%	100.0%
		% of Total	56.7%	37.3%	6.0%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.974[a]	2	.011
Likelihood Ratio	6.976	2	.031
Linear-by-Linear Association	8.042	1	.005
N of Valid Cases	699		

a. 3 cells (50.0%) have expected count less than 5. The minimum expected count is .42.

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.113	.011
	Cramer's V	.113	.011
	N of Valid Cases	699	

Clear Skies * Gender

Crosstab					
			Gender		
			1 male	2 female	Total
Clear Skies	1 yes	Count	3	4	7
		% within Clear Skies	42.9%	57.1%	100.0%
		% within Gender	.9%	1.1%	1.0%
		% of Total	.4%	.6%	1.0%
	2 no	Count	330	365	695
		% within Clear Skies	47.5%	52.5%	100.0%
		% within Gender	99.1%	98.9%	99.0%
		% of Total	47.0%	52.0%	99.0%
	Total	Count	333	369	702
		% within Clear Skies	47.4%	52.6%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	47.4%	52.6%	100.0%

Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.059[a]	1	.807		
Continuity Correction[b]	.000	1	1.000		
Likelihood Ratio	.060	1	.807		
Fisher's Exact Test				1.000	.556
Linear-by-Linear Association	.059	1	.808		
N of Valid Cases	702				
a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 3.32.					
b. Computed only for a 2x2 table					

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	-.009	.807
	Cramer's V	.009	.807
	N of Valid Cases	702	

Clear Skies * Age (Binned)

Crosstab							
			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Clear Skies	1 yes	Count	1	2	3	1	7
		% within Clear Skies	14.3%	28.6%	42.9%	14.3%	100.0%
		% within Age (Binned)	.5%	1.3%	1.6%	.6%	1.0%
		% of Total	.1%	.3%	.4%	.1%	1.0%
	2 no	Count	182	155	181	153	671
		% within Clear Skies	27.1%	23.1%	27.0%	22.8%	100.0%
		% within Age (Binned)	99.5%	98.7%	98.4%	99.4%	99.0%
		% of Total	26.8%	22.9%	26.7%	22.6%	99.0%
	Total	Count	183	157	184	154	678
		% within Clear Skies	27.0%	23.2%	27.1%	22.7%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	27.0%	23.2%	27.1%	22.7%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.378[a]	3	.711

Likelihood Ratio	1.396	3	.706
Linear-by-Linear Association	.076	1	.783
N of Valid Cases	678		
a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is 1.59.			

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.045	.711
	Cramer's V	.045	.711
	N of Valid Cases	678	

Clear Skies * Economic Status

Crosstab

			Economic Status			
			1 employed	2 retired	3 other	Total
Clear Skies	1 yes	Count	4	1	2	7
		% within Clear Skies	57.1%	14.3%	28.6%	100.0%
		% within Economic Status	1.0%	.4%	4.8%	1.0%
		% of Total	.6%	.1%	.3%	1.0%
	2 no	Count	392	260	40	692
		% within Clear Skies	56.6%	37.6%	5.8%	100.0%
		% within Economic Status	99.0%	99.6%	95.2%	99.0%
		% of Total	56.1%	37.2%	5.7%	99.0%
	Total	Count	396	261	42	699
		% within Clear Skies	56.7%	37.3%	6.0%	100.0%
		% within Economic Status	100.0%	100.0%	100.0%	100.0%
		% of Total	56.7%	37.3%	6.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.998[a]	2	.030
Likelihood Ratio	4.455	2	.108
Linear-by-Linear Association	.929	1	.335
N of Valid Cases	699		
a. 3 cells (50.0%) have expected count less than 5. The minimum expected count is .42.			

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.100	.030
	Cramer's V	.100	.030
	N of Valid Cases	699	

LCBP * Gender

Crosstab

			Gender		
			1 male	2 female	Total
LCBP	1 yes	Count	5	1	6
		% within LCBP	83.3%	16.7%	100.0%
		% within Gender	1.5%	.3%	.9%
		% of Total	.7%	.1%	.9%
	2 no	Count	328	368	696
		% within LCBP	47.1%	52.9%	100.0%
		% within Gender	98.5%	99.7%	99.1%
		% of Total	46.7%	52.4%	99.1%
	Total	Count	333	369	702
		% within LCBP	47.4%	52.6%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	47.4%	52.6%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	3.128[a]	1	.077		
Continuity Correction[b]	1.844	1	.174		

Likelihood Ratio	3.364	1	.067		
Fisher's Exact Test				.107	.086
Linear-by-Linear Association	3.123	1	.077		
N of Valid Cases	702				
a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 2.85.					
b. Computed only for a 2x2 table					

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.067	.077
	Cramer's V	.067	.077
	N of Valid Cases	702	

LCBP * Age (Binned)

Crosstab							
			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
LCBP	1 yes	Count	2	1	1	1	5
		% within LCBP	40.0%	20.0%	20.0%	20.0%	100.0%
		% within Age (Binned)	1.1%	.6%	.5%	.6%	.7%
		% of Total	.3%	.1%	.1%	.1%	.7%
	2 no	Count	181	156	183	153	673
		% within LCBP	26.9%	23.2%	27.2%	22.7%	100.0%
		% within Age (Binned)	98.9%	99.4%	99.5%	99.4%	99.3%
		% of Total	26.7%	23.0%	27.0%	22.6%	99.3%
	Total	Count	183	157	184	154	678
		% within LCBP	27.0%	23.2%	27.1%	22.7%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	27.0%	23.2%	27.1%	22.7%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.448[a]	3	.930
Likelihood Ratio	.419	3	.936
Linear-by-Linear Association	.265	1	.607
N of Valid Cases	678		
a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is 1.14.			

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.026	.930
	Cramer's V	.026	.930
	N of Valid Cases	678	

LCBP * Economic Status

Crosstab						
			Economic Status			
			1 employed	2 retired	3 other	Total
LCBP	1 yes	Count	4	2	0	6
		% within LCBP	66.7%	33.3%	.0%	100.0%
		% within Economic Status	1.0%	.8%	.0%	.9%
		% of Total	.6%	.3%	.0%	.9%
	2 no	Count	392	259	42	693
		% within LCBP	56.6%	37.4%	6.1%	100.0%
		% within Economic Status	99.0%	99.2%	100.0%	99.1%
		% of Total	56.1%	37.1%	6.0%	99.1%
	Total	Count	396	261	42	699
		% within LCBP	56.7%	37.3%	6.0%	100.0%
		% within Economic Status	100.0%	100.0%	100.0%	100.0%
		% of Total	56.7%	37.3%	6.0%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)

Pearson Chi-Square	.497[a]	2	.780
Likelihood Ratio	.852	2	.653
Linear-by-Linear Association	.419	1	.517
N of Valid Cases	699		
a. 3 cells (50.0%) have expected count less than 5. The minimum expected count is .36.			

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.027	.780
	Cramer's V	.027	.780
	N of Valid Cases	699	

The Chi-square test of independence for participation rates in programmes (Question B2) and respondents' property's age (Question D3), property's type (Question D2) and property's external wall (Question D4)

Insulation and appliances programmes

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Warm Front * Property Age	705	97.8%	16	2.2%	721	100.0%
Warm Front * Property Type	705	97.8%	16	2.2%	721	100.0%
Warm Front * External Wall	705	97.8%	16	2.2%	721	100.0%
WHGH * Property Age	705	97.8%	16	2.2%	721	100.0%
WHGH * Property Type	705	97.8%	16	2.2%	721	100.0%
WHGH * External Wall	705	97.8%	16	2.2%	721	100.0%
Cocoon * Property Age	705	97.8%	16	2.2%	721	100.0%
Cocoon * Property Type	705	97.8%	16	2.2%	721	100.0%
Cocoon * External Wall	705	97.8%	16	2.2%	721	100.0%
Eon insulation * Property Age	705	97.8%	16	2.2%	721	100.0%
Eon insulation * Property Type	705	97.8%	16	2.2%	721	100.0%
Eon insulation * External Wall	705	97.8%	16	2.2%	721	100.0%
BG insulation * Property Age	705	97.8%	16	2.2%	721	100.0%
BG insulation * Property Type	705	97.8%	16	2.2%	721	100.0%
BG insulation * External Wall	705	97.8%	16	2.2%	721	100.0%
BGBS * Property Age	705	97.8%	16	2.2%	721	100.0%
BGBS * Property Type	705	97.8%	16	2.2%	721	100.0%
BGBS * External Wall	705	97.8%	16	2.2%	721	100.0%
Energy Labelling of White Goods * Property Age	705	97.8%	16	2.2%	721	100.0%
Energy Labelling of White Goods * Property Type	705	97.8%	16	2.2%	721	100.0%
Energy Labelling of White Goods * External Wall	705	97.8%	16	2.2%	721	100.0%
Council cfls * Property Age	705	97.8%	16	2.2%	721	100.0%
Council cfls * Property Type	705	97.8%	16	2.2%	721	100.0%
Council cfls * External Wall	705	97.8%	16	2.2%	721	100.0%
Suppliers cfls * Property Age	705	97.8%	16	2.2%	721	100.0%
Suppliers cfls * Property Type	705	97.8%	16	2.2%	721	100.0%
Suppliers cfls * External Wall	705	97.8%	16	2.2%	721	100.0%

Warm Front * Property Age

Crosstab

			Property Age				
			1 pre 1929	2 between 1930-1975	3 between 1976-2006	4 post 2007	Total
Warm Front	1 yes	Count	11	46	6	2	65
		% within Warm Front	16.9%	70.8%	9.2%	3.1%	100.0%
		% within Property Age	8.3%	10.7%	4.8%	9.5%	9.2%
		% of Total	1.6%	6.5%	.9%	.3%	9.2%
	2 no	Count	121	382	118	19	640
		% within Warm Front	18.9%	59.7%	18.4%	3.0%	100.0%
		% within Property Age	91.7%	89.3%	95.2%	90.5%	90.8%
		% of Total	17.2%	54.2%	16.7%	2.7%	90.8%
	Total	Count	132	428	124	21	705

		% within Warm Front	18.7%	60.7%	17.6%	3.0%	100.0%
		% within Property Age	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	18.7%	60.7%	17.6%	3.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.164[a]	3	.244
Likelihood Ratio	4.656	3	.199
Linear-by-Linear Association	.603	1	.438
N of Valid Cases	705		

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 1.94.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.077	.244
	Cramer's V	.077	.244
	N of Valid Cases	705	

Warm Front * Property Type

Crosstab

			Property Type				
			1 detached	2 semi-detached	3 terraced	4 other	Total
Warm Front	1 yes	Count	28	20	13	4	65
		% within Warm Front	43.1%	30.8%	20.0%	6.2%	100.0%
		% within Property Type	10.6%	8.8%	7.2%	11.1%	9.2%
		% of Total	4.0%	2.8%	1.8%	.6%	9.2%
	2 no	Count	235	206	167	32	640
		% within Warm Front	36.7%	32.2%	26.1%	5.0%	100.0%
		% within Property Type	89.4%	91.2%	92.8%	88.9%	90.8%
		% of Total	33.3%	29.2%	23.7%	4.5%	90.8%
	Total	Count	263	226	180	36	705
		% within Warm Front	37.3%	32.1%	25.5%	5.1%	100.0%
		% within Property Type	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	37.3%	32.1%	25.5%	5.1%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.689[a]	3	.639
Likelihood Ratio	1.716	3	.633
Linear-by-Linear Association	.252	1	.616
N of Valid Cases	705		

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 3.32.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.049	.639
	Cramer's V	.049	.639
	N of Valid Cases	705	

Warm Front * External Wall

Crosstab

			External Wall				
			1 solid	2 cavity	3 timber	4 other	Total
Warm Front	1 yes	Count	29	32	1	3	65
		% within Warm Front	44.6%	49.2%	1.5%	4.6%	100.0%
		% within External Wall	8.5%	10.4%	6.7%	7.3%	9.2%
		% of Total	4.1%	4.5%	.1%	.4%	9.2%
	2 no	Count	313	275	14	38	640
		% within Warm Front	48.9%	43.0%	2.2%	5.9%	100.0%
		% within External Wall	91.5%	89.6%	93.3%	92.7%	90.8%
		% of Total	44.4%	39.0%	2.0%	5.4%	90.8%
	Total	Count	342	307	15	41	705

		% within Warm Front	48.5%	43.5%	2.1%	5.8%	100.0%
		% within External Wall	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	48.5%	43.5%	2.1%	5.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.049[a]	3	.789
Likelihood Ratio	1.059	3	.787
Linear-by-Linear Association	.001	1	.980
N of Valid Cases	705		
a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is 1.38.			

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.039	.789
	Cramer's V	.039	.789
	N of Valid Cases	705	

WHGH * Property Age

Crosstab

			Property Age				
			1 pre 1929	2 between 1930-1975	3 between 1976-2006	4 post 2007	Total
WHGH	1 yes	Count	14	34	14	1	63
		% within WHGH	22.2%	54.0%	22.2%	1.6%	100.0%
		% within Property Age	10.6%	7.9%	11.3%	4.8%	8.9%
		% of Total	2.0%	4.8%	2.0%	.1%	8.9%
	2 no	Count	118	394	110	20	642
		% within WHGH	18.4%	61.4%	17.1%	3.1%	100.0%
		% within Property Age	89.4%	92.1%	88.7%	95.2%	91.1%
		% of Total	16.7%	55.9%	15.6%	2.8%	91.1%
	Total	Count	132	428	124	21	705
		% within WHGH	18.7%	60.7%	17.6%	3.0%	100.0%
		% within Property Age	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	18.7%	60.7%	17.6%	3.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.264[a]	3	.519
Likelihood Ratio	2.284	3	.516
Linear-by-Linear Association	.039	1	.843
N of Valid Cases	705		
a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 1.88.			

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.057	.519
	Cramer's V	.057	.519
	N of Valid Cases	705	

WHGH * Property Type

Crosstab

			Property Type				
			1 detached	2 semi-detached	3 terraced	4 other	Total
WHGH	1 yes	Count	24	17	19	3	63
		% within WHGH	38.1%	27.0%	30.2%	4.8%	100.0%
		% within Property Type	9.1%	7.5%	10.6%	8.3%	8.9%
		% of Total	3.4%	2.4%	2.7%	.4%	8.9%
	2 no	Count	239	209	161	33	642

		% within WHGH	37.2%	32.6%	25.1%	5.1%	100.0%
		% within Property Type	90.9%	92.5%	89.4%	91.7%	91.1%
		% of Total	33.9%	29.6%	22.8%	4.7%	91.1%
	Total	Count	263	226	180	36	705
		% within WHGH	37.3%	32.1%	25.5%	5.1%	100.0%
		% within Property Type	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	37.3%	32.1%	25.5%		

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.163[a]	3	.762
Likelihood Ratio	1.163	3	.762
Linear-by-Linear Association	.029	1	.865
N of Valid Cases	705		

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 3.22.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.041	.762
	Cramer's V	.041	.762
	N of Valid Cases	705	

WHGH * External Wall

Crosstab

			External Wall				
			1 solid	2 cavity	3 timber	4 other	Total
WHGH	1 yes	Count	26	32	2	3	63
		% within WHGH	41.3%	50.8%	3.2%	4.8%	100.0%
		% within External Wall	7.6%	10.4%	13.3%	7.3%	8.9%
		% of Total	3.7%	4.5%	.3%	.4%	8.9%
	2 no	Count	316	275	13	38	642
		% within WHGH	49.2%	42.8%	2.0%	5.9%	100.0%
		% within External Wall	92.4%	89.6%	86.7%	92.7%	91.1%
		% of Total	44.8%	39.0%	1.8%	5.4%	91.1%
	Total	Count	342	307	15	41	705
		% within WHGH	48.5%	43.5%	2.1%	5.8%	100.0%
		% within External Wall	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	48.5%	43.5%	2.1%	5.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.071[a]	3	.558
Likelihood Ratio	2.034	3	.565
Linear-by-Linear Association	.192	1	.661
N of Valid Cases	705		

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is 1.34.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.054	.558
	Cramer's V	.054	.558
	N of Valid Cases	705	

Cocoon * Property Age

Crosstab

			Property Age				
			1 pre 1929	2 between 1930-1975	3 between 1976-2006	4 post 2007	Total
Cocoon	1 yes	Count	0	8	1	1	10
		% within Cocoon	.0%	80.0%	10.0%	10.0%	100.0%
		% within Property Age	.0%	1.9%	.8%	4.8%	1.4%
		% of Total	.0%	1.1%	.1%	.1%	1.4%
	2 no	Count	132	420	123	20	695

		% within Cocoon	19.0%	60.4%	17.7%	2.9%	100.0%
		% within Property Age	100.0%	98.1%	99.2%	95.2%	98.6%
		% of Total	18.7%	59.6%	17.4%	2.8%	98.6%
	Total	Count	132	428	124	21	705
		% within Cocoon	18.7%	60.7%	17.6%	3.0%	100.0%
		% within Property Age	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	18.7%	60.7%	17.6%	3.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.532[a]	3	.209
Likelihood Ratio	5.772	3	.123
Linear-by-Linear Association	1.338	1	.247
N of Valid Cases	705		

a. 3 cells (37.5%) have expected count less than 5. The minimum expected count is .30.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.080	.209
	Cramer's V	.080	.209
	N of Valid Cases	705	

Cocoon * Property Type

Crosstab

			Property Type				
			1 detached	2 semi-detached	3 terraced	4 other	Total
Cocoon	1 yes	Count	3	4	2	1	10
		% within Cocoon	30.0%	40.0%	20.0%	10.0%	100.0%
		% within Property Type	1.1%	1.8%	1.1%	2.8%	1.4%
		% of Total	.4%	.6%	.3%	.1%	1.4%
	2 no	Count	260	222	178	35	695
		% within Cocoon	37.4%	31.9%	25.6%	5.0%	100.0%
		% within Property Type	98.9%	98.2%	98.9%	97.2%	98.6%
		% of Total	36.9%	31.5%	25.2%	5.0%	98.6%
	Total	Count	263	226	180	36	705
		% within Cocoon	37.3%	32.1%	25.5%	5.1%	100.0%
		% within Property Type	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	37.3%	32.1%	25.5%	5.1%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.942[a]	3	.815
Likelihood Ratio	.844	3	.839
Linear-by-Linear Association	.321	1	.571
N of Valid Cases	705		

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .51.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.037	.815
	Cramer's V	.037	.815
	N of Valid Cases	705	

Cocoon * External Wall

Crosstab

			External Wall				
			1 solid	2 cavity	3 timber	4 other	Total
Cocoon	1 yes	Count	5	4	0	1	10
		% within Cocoon	50.0%	40.0%	.0%	10.0%	100.0%
		% within External Wall	1.5%	1.3%	.0%	2.4%	1.4%
		% of Total	.7%	.6%	.0%	.1%	1.4%

	2 no	Count	337	303	15	40	695
		% within Cocoon	48.5%	43.6%	2.2%	5.8%	100.0%
		% within External Wall	98.5%	98.7%	100.0%	97.6%	98.6%
		% of Total	47.8%	43.0%	2.1%	5.7%	98.6%
	Total	Count	342	307	15	41	705
		% within Cocoon	48.5%	43.5%	2.1%	5.8%	100.0%
		% within External Wall	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	48.5%	43.5%	2.1%	5.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.555[a]	3	.907
Likelihood Ratio	.715	3	.870
Linear-by-Linear Association	.086	1	.770
N of Valid Cases	705		

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .21.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.028	.907
	Cramer's V	.028	.907
	N of Valid Cases	705	

Eon insulation * Property Age

Crosstab

			Property Age				
			1 pre 1929	2 between 1930-1975	3 between 1976-2006	4 post 2007	Total
Eon insulation	1 yes	Count	4	9	3	0	16
		% within Eon insulation	25.0%	56.3%	18.8%	.0%	100.0%
		% within Property Age	3.0%	2.1%	2.4%	.0%	2.3%
		% of Total	.6%	1.3%	.4%	.0%	2.3%
	2 no	Count	128	419	121	21	689
		% within Eon insulation	18.6%	60.8%	17.6%	3.0%	100.0%
		% within Property Age	97.0%	97.9%	97.6%	100.0%	97.7%
		% of Total	18.2%	59.4%	17.2%	3.0%	97.7%
	Total	Count	132	428	124	21	705
		% within Eon insulation	18.7%	60.7%	17.6%	3.0%	100.0%
		% within Property Age	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	18.7%	60.7%	17.6%	3.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.898[a]	3	.826
Likelihood Ratio	1.344	3	.719
Linear-by-Linear Association	.418	1	.518
N of Valid Cases	705		

a. 3 cells (37.5%) have expected count less than 5. The minimum expected count is .48.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.036	.826
	Cramer's V	.036	.826
	N of Valid Cases	705	

Eon insulation * Property Type

Crosstab

			Property Type				
			1 detached	2 semi-detached	3 terraced	4 other	Total
Eon insulation	1 yes	Count	6	2	6	2	16
		% within Eon insulation	37.5%	12.5%	37.5%	12.5%	100.0%
		% within Property Type	2.3%	.9%	3.3%	5.6%	2.3%
		% of Total	.9%	.3%	.9%	.3%	2.3%

	2 no	Count	257	224	174	34	689
		% within Eon insulation	37.3%	32.5%	25.3%	4.9%	100.0%
		% within Property Type	97.7%	99.1%	96.7%	94.4%	97.7%
		% of Total	36.5%	31.8%	24.7%	4.8%	97.7%
	Total	Count	263	226	180	36	705
		% within Eon insulation	37.3%	32.1%	25.5%	5.1%	100.0%
		% within Property Type	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	37.3%	32.1%	25.5%	5.1%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.625[a]	3	.201
Likelihood Ratio	4.595	3	.204
Linear-by-Linear Association	1.944	1	.163
N of Valid Cases	705		

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is .82.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.081	.201
	Cramer's V	.081	.201
	N of Valid Cases	705	

Eon insulation * External Wall

Crosstab

			External Wall				
			1 solid	2 cavity	3 timber	4 other	Total
Eon insulation	1 yes	Count	9	7	0	0	16
		% within Eon insulation	56.3%	43.8%	.0%	.0%	100.0%
		% within External Wall	2.6%	2.3%	.0%	.0%	2.3%
		% of Total	1.3%	1.0%	.0%	.0%	2.3%
	2 no	Count	333	300	15	41	689
		% within Eon insulation	48.3%	43.5%	2.2%	6.0%	100.0%
		% within External Wall	97.4%	97.7%	100.0%	100.0%	97.7%
		% of Total	47.2%	42.6%	2.1%	5.8%	97.7%
	Total	Count	342	307	15	41	705
		% within Eon insulation	48.5%	43.5%	2.1%	5.8%	100.0%
		% within External Wall	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	48.5%	43.5%	2.1%	5.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.503[a]	3	.682
Likelihood Ratio	2.764	3	.430
Linear-by-Linear Association	1.289	1	.256
N of Valid Cases	705		

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is .34.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.046	.682
	Cramer's V	.046	.682
	N of Valid Cases	705	

BG insulation * Property Age

Crosstab

			Property Age				
			1 pre 1929	2 between 1930-1975	3 between 1976-2006	4 post 2007	Total
BG insulation	1 yes	Count	5	36	4	2	47
		% within BG insulation	10.6%	76.6%	8.5%	4.3%	100.0%
		% within Property Age	3.8%	8.4%	3.2%	9.5%	6.7%
		% of Total	.7%	5.1%	.6%	.3%	6.7%
	2 no	Count	127	392	120	19	658

		% within BG insulation	19.3%	59.6%	18.2%	2.9%	100.0%
		% within Property Age	96.2%	91.6%	96.8%	90.5%	93.3%
		% of Total	18.0%	55.6%	17.0%	2.7%	93.3%
	Total	Count	132	428	124	21	705
		% within BG insulation	18.7%	60.7%	17.6%	3.0%	100.0%
		% within Property Age	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	18.7%	60.7%	17.6%	3.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.487[a]	3	.090
Likelihood Ratio	7.133	3	.068
Linear-by-Linear Association	.026	1	.873
N of Valid Cases	705		

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 1.40.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.096	.090
	Cramer's V	.096	.090
	N of Valid Cases	705	

BG Insulation * Property Type

Crosstab

			Property Type				
			1 detached	2 semi-detached	3 terraced	4 other	Total
BG insulation	1 yes	Count	18	17	10	2	47
		% within BG insulation	38.3%	36.2%	21.3%	4.3%	100.0%
		% within Property Type	6.8%	7.5%	5.6%	5.6%	6.7%
		% of Total	2.6%	2.4%	1.4%	.3%	6.7%
	2 no	Count	245	209	170	34	658
		% within BG insulation	37.2%	31.8%	25.8%	5.2%	100.0%
		% within Property Type	93.2%	92.5%	94.4%	94.4%	93.3%
		% of Total	34.8%	29.6%	24.1%	4.8%	93.3%
	Total	Count	263	226	180	36	705
		% within BG insulation	37.3%	32.1%	25.5%	5.1%	100.0%
		% within Property Type	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	37.3%	32.1%	25.5%	5.1%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.708[a]	3	.871
Likelihood Ratio	.722	3	.868
Linear-by-Linear Association	.262	1	.609
N of Valid Cases	705		

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 2.40.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.032	.871
	Cramer's V	.032	.871
	N of Valid Cases	705	

BG Insulation * External Wall

Crosstab

			External Wall				
			1 solid	2 cavity	3 timber	4 other	Total
BG insulation	1 yes	Count	23	22	2	0	47
		% within BG insulation	48.9%	46.8%	4.3%	.0%	100.0%
		% within External Wall	6.7%	7.2%	13.3%	.0%	6.7%
		% of Total	3.3%	3.1%	.3%	.0%	6.7%
	2 no	Count	319	285	13	41	658
		% within BG insulation	48.5%	43.3%	2.0%	6.2%	100.0%

		% within External Wall	93.3%	92.8%	86.7%	100.0%	93.3%
		% of Total	45.2%	40.4%	1.8%	5.8%	93.3%
	Total	Count	342	307	15	41	705
		% within BG insulation	48.5%	43.5%	2.1%	5.8%	100.0%
		% within External Wall	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	48.5%	43.5%	2.1%	5.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.125[a]	3	.248
Likelihood Ratio	6.625	3	.085
Linear-by-Linear Association	1.318	1	.251
N of Valid Cases	705		

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is 1.00.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.076	.248
	Cramer's V	.076	.248
	N of Valid Cases	705	

BGBS * Property Age

Crosstab

			Property Age				
			1 pre 1929	2 between 1930-1975	3 between 1976-2006	4 post 2007	Total
BGBS	1 yes	Count	0	1	0	0	1
		% within BGBS	.0%	100.0%	.0%	.0%	100.0%
		% within Property Age	.0%	.2%	.0%	.0%	.1%
		% of Total	.0%	.1%	.0%	.0%	.1%
	2 no	Count	132	427	124	21	704
		% within BGBS	18.8%	60.7%	17.6%	3.0%	100.0%
		% within Property Age	100.0%	99.8%	100.0%	100.0%	99.9%
		% of Total	18.7%	60.6%	17.6%	3.0%	99.9%
	Total	Count	132	428	124	21	705
		% within BGBS	18.7%	60.7%	17.6%	3.0%	100.0%
		% within Property Age	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	18.7%	60.7%	17.6%	3.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.648[a]	3	.885
Likelihood Ratio	.999	3	.801
Linear-by-Linear Association	.005	1	.945
N of Valid Cases	705		

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .03.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.030	.885
	Cramer's V	.030	.885
	N of Valid Cases	705	

BGBS * Property Type

Crosstab

			Property Type				
			1 detached	2 semi-detached	3 terraced	4 other	Total
BGBS	1 yes	Count	1	0	0	0	1
		% within BGBS	100.0%	.0%	.0%	.0%	100.0%
		% within Property Type	.4%	.0%	.0%	.0%	.1%
		% of Total	.1%	.0%	.0%	.0%	.1%
	2 no	Count	262	226	180	36	704
		% within BGBS	37.2%	32.1%	25.6%	5.1%	100.0%

		% within Property Type	99.6%	100.0%	100.0%	100.0%	99.9%
		% of Total	37.2%	32.1%	25.5%	5.1%	99.9%
	Total	Count	263	226	180	36	705
		% within BGBS	37.3%	32.1%	25.5%	5.1%	100.0%
		% within Property Type	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	37.3%	32.1%	25.5%	5.1%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.683[a]	3	.641
Likelihood Ratio	1.974	3	.578
Linear-by-Linear Association	.821	1	.365
N of Valid Cases	705		

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .05.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.049	.641
	Cramer's V	.049	.641
	N of Valid Cases	705	

BGBS * External Wall

Crosstab

			External Wall				
			1 solid	2 cavity	3 timber	4 other	Total
BGBS	1 yes	Count	0	1	0	0	1
		% within BGBS	.0%	100.0%	.0%	.0%	100.0%
		% within External Wall	.0%	.3%	.0%	.0%	.1%
		% of Total	.0%	.1%	.0%	.0%	.1%
	2 no	Count	342	306	15	41	704
		% within BGBS	48.6%	43.5%	2.1%	5.8%	100.0%
		% within External Wall	100.0%	99.7%	100.0%	100.0%	99.9%
		% of Total	48.5%	43.4%	2.1%	5.8%	99.9%
	Total	Count	342	307	15	41	705
		% within BGBS	48.5%	43.5%	2.1%	5.8%	100.0%
		% within External Wall	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	48.5%	43.5%	2.1%	5.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.298[a]	3	.730
Likelihood Ratio	1.665	3	.645
Linear-by-Linear Association	.089	1	.766
N of Valid Cases	705		

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .02.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.043	.730
	Cramer's V	.043	.730
	N of Valid Cases	705	

Energy Labelling of White Goods * Property Age

Crosstab

			Property Age				
			1 pre 1929	2 between 1930-1975	3 between 1976-2006	4 post 2007	Total
Energy Labelling of White Goods	1 yes	Count	25	98	32	5	160
		% within Energy Labelling of White Goods	15.6%	61.3%	20.0%	3.1%	100.0%
		% within Property Age	18.9%	22.9%	25.8%	23.8%	22.7%
		% of Total	3.5%	13.9%	4.5%	.7%	22.7%
	2 no	Count	107	330	92	16	545
		% within Energy Labelling of White Goods	19.6%	60.6%	16.9%	2.9%	100.0%

		% within Property Age	81.1%	77.1%	74.2%	76.2%	77.3%
		% of Total	15.2%	46.8%	13.0%	2.3%	77.3%
	Total	Count	132	428	124	21	705
		% within Energy Labelling of White Goods	18.7%	60.7%	17.6%	3.0%	100.0%
		% within Property Age	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	18.7%	60.7%	17.6%	3.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.770[a]	3	.621
Likelihood Ratio	1.795	3	.616
Linear-by-Linear Association	1.450	1	.229
N of Valid Cases	705		

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 4.77.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.050	.621
	Cramer's V	.050	.621
	N of Valid Cases	705	

Energy Labelling of White Goods * Property Type

Crosstab

			Property Type				
			1 detached	2 semi-detached	3 terraced	4 other	Total
Energy Labelling of White Goods	1 yes	Count	62	51	38	9	160
		% within Energy Labelling of White Goods	38.8%	31.9%	23.8%	5.6%	100.0%
		% within Property Type	23.6%	22.6%	21.1%	25.0%	22.7%
		% of Total	8.8%	7.2%	5.4%	1.3%	22.7%
	2 no	Count	201	175	142	27	545
		% within Energy Labelling of White Goods	36.9%	32.1%	26.1%	5.0%	100.0%
		% within Property Type	76.4%	77.4%	78.9%	75.0%	77.3%
		% of Total	28.5%	24.8%	20.1%	3.8%	77.3%
	Total	Count	263	226	180	36	705
		% within Energy Labelling of White Goods	37.3%	32.1%	25.5%	5.1%	100.0%
		% within Property Type	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	37.3%	32.1%	25.5%	5.1%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.484[a]	3	.922
Likelihood Ratio	.485	3	.922
Linear-by-Linear Association	.019	1	.890
N of Valid Cases	705		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 8.17.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.026	.922
	Cramer's V	.026	.922
	N of Valid Cases	705	

Energy Labelling of White Goods * External Wall

Crosstab

			External Wall				
			1 solid	2 cavity	3 timber	4 other	Total
Energy Labellin g of White	1 yes	Count	68	78	5	9	160
		% within Energy Labelling of White Goods	42.5%	48.8%	3.1%	5.6%	100.0%
		% within External Wall	19.9%	25.4%	33.3%	22.0%	22.7%
		% of Total	9.6%	11.1%	.7%	1.3%	22.7%

Goods	2 no	Count	274	229	10	32	545
		% within Energy Labelling of White Goods	50.3%	42.0%	1.8%	5.9%	100.0%
		% within External Wall	80.1%	74.6%	66.7%	78.0%	77.3%
		% of Total	38.9%	32.5%	1.4%	4.5%	77.3%
	Total	Count	342	307	15	41	705
		% within Energy Labelling of White Goods	48.5%	43.5%	2.1%	5.8%	100.0%
		% within External Wall	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	48.5%	43.5%	2.1%	5.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.809[a]	3	.283
Likelihood Ratio	3.739	3	.291
Linear-by-Linear Association	.905	1	.341
N of Valid Cases	705		

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 3.40.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.074	.283
	Cramer's V	.074	.283
	N of Valid Cases	705	

Council cfls * Property Age

Crosstab

			Property Age				
			1 pre 1929	2 between 1930-1975	3 between 1976-2006	4 post 2007	Total
Council cfls	1 yes	Count	30	132	29	7	198
		% within Council cfls	15.2%	66.7%	14.6%	3.5%	100.0%
		% within Property Age	22.7%	30.8%	23.4%	33.3%	28.1%
		% of Total	4.3%	18.7%	4.1%	1.0%	28.1%
	2 no	Count	102	296	95	14	507
		% within Council cfls	20.1%	58.4%	18.7%	2.8%	100.0%
		% within Property Age	77.3%	69.2%	76.6%	66.7%	71.9%
		% of Total	14.5%	42.0%	13.5%	2.0%	71.9%
	Total	Count	132	428	124	21	705
		% within Council cfls	18.7%	60.7%	17.6%	3.0%	100.0%
		% within Property Age	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	18.7%	60.7%	17.6%	3.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.127[a]	3	.163
Likelihood Ratio	5.221	3	.156
Linear-by-Linear Association	.174	1	.677
N of Valid Cases	705		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.90.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.085	.163
	Cramer's V	.085	.163
	N of Valid Cases	705	

Council cfls * Property Type

Crosstab

			Property Type				
			1 detached	2 semi-detached	3 terraced	4 other	Total
Council cfls	1 yes	Count	65	68	53	12	198
		% within Council cfls	32.8%	34.3%	26.8%	6.1%	100.0%
		% within Property Type	24.7%	30.1%	29.4%	33.3%	28.1%

		% of Total	9.2%	9.6%	7.5%	1.7%	28.1%
	2 no	Count	198	158	127	24	507
		% within Council cfls	39.1%	31.2%	25.0%	4.7%	100.0%
		% within Property Type	75.3%	69.9%	70.6%	66.7%	71.9%
		% of Total	28.1%	22.4%	18.0%	3.4%	71.9%
	Total	Count	263	226	180	36	705
		% within Council cfls	37.3%	32.1%	25.5%	5.1%	100.0%
		% within Property Type	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	37.3%	32.1%	25.5%	5.1%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.584[a]	3	.460
Likelihood Ratio	2.598	3	.458
Linear-by-Linear Association	1.736	1	.188
N of Valid Cases	705		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 10.11.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.061	.460
	Cramer's V	.061	.460
	N of Valid Cases	705	

Council cfls * External Wall

Crosstab

			External Wall				
			1 solid	2 cavity	3 timber	4 other	Total
Council cfls	1 yes	Count	89	90	6	13	198
		% within Council cfls	44.9%	45.5%	3.0%	6.6%	100.0%
		% within External Wall	26.0%	29.3%	40.0%	31.7%	28.1%
		% of Total	12.6%	12.8%	.9%	1.8%	28.1%
	2 no	Count	253	217	9	28	507
		% within Council cfls	49.9%	42.8%	1.8%	5.5%	100.0%
		% within External Wall	74.0%	70.7%	60.0%	68.3%	71.9%
		% of Total	35.9%	30.8%	1.3%	4.0%	71.9%
	Total	Count	342	307	15	41	705
		% within Council cfls	48.5%	43.5%	2.1%	5.8%	100.0%
		% within External Wall	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	48.5%	43.5%	2.1%	5.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.271[a]	3	.518
Likelihood Ratio	2.202	3	.531
Linear-by-Linear Association	1.310	1	.252
N of Valid Cases	705		

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 4.21.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.057	.518
	Cramer's V	.057	.518
	N of Valid Cases	705	

Suppliers cfls * Property Age

Crosstab

			Property Age				
			1 pre 1929	2 between 1930-1975	3 between 1976-2006	4 post 2007	Total
Suppliers cfls	1 yes	Count	52	205	55	9	321
		% within Suppliers cfls	16.2%	63.9%	17.1%	2.8%	100.0%
		% within Property Age	39.4%	47.9%	44.4%	42.9%	45.5%

		% of Total	7.4%	29.1%	7.8%	1.3%	45.5%
	2 no	Count	80	223	69	12	384
		% within Suppliers cfls	20.8%	58.1%	18.0%	3.1%	100.0%
		% within Property Age	60.6%	52.1%	55.6%	57.1%	54.5%
		% of Total	11.3%	31.6%	9.8%	1.7%	54.5%
	Total	Count	132	428	124	21	705
		% within Suppliers cfls	18.7%	60.7%	17.6%	3.0%	100.0%
		% within Property Age	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	18.7%	60.7%	17.6%	3.0%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.101[a]	3	.376
Likelihood Ratio	3.119	3	.374
Linear-by-Linear Association	.362	1	.547
N of Valid Cases	705		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 9.56.

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.066	.376
	Cramer's V	.066	.376
	N of Valid Cases	705	

Suppliers cfls * Property Type

Crosstab							
			Property Type				
			1 detached	2 semi-detached	3 terraced	4 other	Total
Suppliers cfls	1 yes	Count	125	107	74	15	321
		% within Suppliers cfls	38.9%	33.3%	23.1%	4.7%	100.0%
		% within Property Type	47.5%	47.3%	41.1%	41.7%	45.5%
		% of Total	17.7%	15.2%	10.5%	2.1%	45.5%
	2 no	Count	138	119	106	21	384
		% within Suppliers cfls	35.9%	31.0%	27.6%	5.5%	100.0%
		% within Property Type	52.5%	52.7%	58.9%	58.3%	54.5%
		% of Total	19.6%	16.9%	15.0%	3.0%	54.5%
	Total	Count	263	226	180	36	705
		% within Suppliers cfls	37.3%	32.1%	25.5%	5.1%	100.0%
		% within Property Type	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	37.3%	32.1%	25.5%	5.1%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.358[a]	3	.502
Likelihood Ratio	2.367	3	.500
Linear-by-Linear Association	1.400	1	.237
N of Valid Cases	705		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 16.39.

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.058	.502
	Cramer's V	.058	.502
	N of Valid Cases	705	

Suppliers cfls * External Wall

Crosstab		

			External Wall				
			1 solid	2 cavity	3 timber	4 other	Total
Suppliers cfls	1 yes	Count	153	142	7	19	321
		% within Suppliers cfls	47.7%	44.2%	2.2%	5.9%	100.0%
		% within External Wall	44.7%	46.3%	46.7%	46.3%	45.5%
		% of Total	21.7%	20.1%	1.0%	2.7%	45.5%
	2 no	Count	189	165	8	22	384
		% within Suppliers cfls	49.2%	43.0%	2.1%	5.7%	100.0%
		% within External Wall	55.3%	53.7%	53.3%	53.7%	54.5%
		% of Total	26.8%	23.4%	1.1%	3.1%	54.5%
	Total	Count	342	307	15	41	705
		% within Suppliers cfls	48.5%	43.5%	2.1%	5.8%	100.0%
		% within External Wall	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	48.5%	43.5%	2.1%	5.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.170[a]	3	.982
Likelihood Ratio	.170	3	.982
Linear-by-Linear Association	.091	1	.763
N of Valid Cases	705		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.83.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.016	.982
	Cramer's V	.016	.982
	N of Valid Cases	705	

Advice and Appliances Programmes

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Are You Doing Your Bit? * Property Age	705	97.8%	16	2.2%	721	100.0%
Are You Doing Your Bit? * Property Type	705	97.8%	16	2.2%	721	100.0%
Are You Doing Your Bit? * External Wall	705	97.8%	16	2.2%	721	100.0%
Commit 20% * Property Age	705	97.8%	16	2.2%	721	100.0%
Commit 20% * Property Type	705	97.8%	16	2.2%	721	100.0%
Commit 20% * External Wall	705	97.8%	16	2.2%	721	100.0%
Act on CO_2 * Property Age	705	97.8%	16	2.2%	721	100.0%
Act on CO2 * Property Type	705	97.8%	16	2.2%	721	100.0%
Act on CO_2 * External Wall	705	97.8%	16	2.2%	721	100.0%
Save Today Save Tomorrow * Property Age	705	97.8%	16	2.2%	721	100.0%
Save Today Save Tomorrow * Property Type	705	97.8%	16	2.2%	721	100.0%
Save Today Save Tomorrow * External Wall	705	97.8%	16	2.2%	721	100.0%
Savers report * Property Age	705	97.8%	16	2.2%	721	100.0%
Savers report * Property Type	705	97.8%	16	2.2%	721	100.0%
Savers report * External Wall	705	97.8%	16	2.2%	721	100.0%
Energy for Good * Property Age	705	97.8%	16	2.2%	721	100.0%
Energy for Good * Property Type	705	97.8%	16	2.2%	721	100.0%
Energy for Good * External Wall	705	97.8%	16	2.2%	721	100.0%
HEC report * Property Age	705	97.8%	16	2.2%	721	100.0%
HEC report * Property Type	705	97.8%	16	2.2%	721	100.0%
HEC report * External Wall	705	97.8%	16	2.2%	721	100.0%

Are You Doing Your Bit? * Property Age

Crosstab

			Property Age				
			1 pre 1929	2 between 1930-1975	3 between 1976-2006	4 post 2007	Total
Are You Doing Your	1 yes	Count	14	12	5	0	31
		% within Are You Doing Your Bit?	45.2%	38.7%	16.1%	.0%	100.0%

Bit?		% within Property Age	10.6%	2.8%	4.0%	.0%	4.4%
		% of Total	2.0%	1.7%	.7%	.0%	4.4%
	2 no	Count	118	416	119	21	674
		% within Are You Doing Your Bit?	17.5%	61.7%	17.7%	3.1%	100.0%
		% within Property Age	89.4%	97.2%	96.0%	100.0%	95.6%
		% of Total	16.7%	59.0%	16.9%	3.0%	95.6%
	Total	Count	132	428	124	21	705
		% within Are You Doing Your Bit?	18.7%	60.7%	17.6%	3.0%	100.0%
		% within Property Age	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	18.7%	60.7%	17.6%	3.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.695[a]	3	.001
Likelihood Ratio	13.687	3	.003
Linear-by-Linear Association	7.733	1	.005
N of Valid Cases	705		

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is .92.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.149	.001
	Cramer's V	.149	.001
	N of Valid Cases	705	

Are You Doing Your Bit? * Property Type

Crosstab

			Property Type				
			1 detached	2 semi-detached	3 terraced	4 other	Total
Are You Doing Your Bit?	1 yes	Count	10	9	12	0	31
		% within Are You Doing Your Bit?	32.3%	29.0%	38.7%	.0%	100.0%
		% within Property Type	3.8%	4.0%	6.7%	.0%	4.4%
		% of Total	1.4%	1.3%	1.7%	.0%	4.4%
	2 no	Count	253	217	168	36	674
		% within Are You Doing Your Bit?	37.5%	32.2%	24.9%	5.3%	100.0%
		% within Property Type	96.2%	96.0%	93.3%	100.0%	95.6%
		% of Total	35.9%	30.8%	23.8%	5.1%	95.6%
	Total	Count	263	226	180	36	705
		% within Are You Doing Your Bit?	37.3%	32.1%	25.5%	5.1%	100.0%
		% within Property Type	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	37.3%	32.1%	25.5%	5.1%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.175[a]	3	.243
Likelihood Ratio	5.480	3	.140
Linear-by-Linear Association	.011	1	.917
N of Valid Cases	705		

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 1.58.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.077	.243
	Cramer's V	.077	.243
	N of Valid Cases	705	

Are You Doing Your Bit? * External Wall

Crosstab

			External Wall	

			1 solid	2 cavity	3 timber	4 other	Total
Are You Doing Your Bit?	1 yes	Count	22	9	0	0	31
		% within Are You Doing Your Bit?	71.0%	29.0%	.0%	.0%	100.0%
		% within External Wall	6.4%	2.9%	.0%	.0%	4.4%
		% of Total	3.1%	1.3%	.0%	.0%	4.4%
	2 no	Count	320	298	15	41	674
		% within Are You Doing Your Bit?	47.5%	44.2%	2.2%	6.1%	100.0%
		% within External Wall	93.6%	97.1%	100.0%	100.0%	95.6%
		% of Total	45.4%	42.3%	2.1%	5.8%	95.6%
	Total	Count	342	307	15	41	705
		% within Are You Doing Your Bit?	48.5%	43.5%	2.1%	5.8%	100.0%
		% within External Wall	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	48.5%	43.5%	2.1%	5.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.515[a]	3	.057
Likelihood Ratio	9.772	3	.021
Linear-by-Linear Association	6.047	1	.014
N of Valid Cases	705		

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is .66.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.103	.057
	Cramer's V	.103	.057
	N of Valid Cases	705	

Commit 20% * Property Age

Crosstab

			Property Age				
			1 pre 1929	2 between 1930-1975	3 between 1976-2006	4 post 2007	Total
Commit 20%	1 yes	Count	2	8	2	0	12
		% within Commit 20%	16.7%	66.7%	16.7%	.0%	100.0%
		% within Property Age	1.5%	1.9%	1.6%	.0%	1.7%
		% of Total	.3%	1.1%	.3%	.0%	1.7%
	2 no	Count	130	420	122	21	693
		% within Commit 20%	18.8%	60.6%	17.6%	3.0%	100.0%
		% within Property Age	98.5%	98.1%	98.4%	100.0%	98.3%
		% of Total	18.4%	59.6%	17.3%	3.0%	98.3%
	Total	Count	132	428	124	21	705
		% within Commit 20%	18.7%	60.7%	17.6%	3.0%	100.0%
		% within Property Age	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	18.7%	60.7%	17.6%	3.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.468[a]	3	.926
Likelihood Ratio	.825	3	.844
Linear-by-Linear Association	.059	1	.808
N of Valid Cases	705		

a. 3 cells (37.5%) have expected count less than 5. The minimum expected count is .36.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.026	.926
	Cramer's V	.026	.926
	N of Valid Cases	705	

Commit 20% * Property Type

Crosstab

			Property Type	

			1 detached	2 semi-detached	3 terraced	4 other	Total
Commit 20%	1 yes	Count	5	4	3	0	12
		% within Commit 20%	41.7%	33.3%	25.0%	.0%	100.0%
		% within Property Type	1.9%	1.8%	1.7%	.0%	1.7%
		% of Total	.7%	.6%	.4%	.0%	1.7%
	2 no	Count	258	222	177	36	693
		% within Commit 20%	37.2%	32.0%	25.5%	5.2%	100.0%
		% within Property Type	98.1%	98.2%	98.3%	100.0%	98.3%
		% of Total	36.6%	31.5%	25.1%	5.1%	98.3%
	Total	Count	263	226	180	36	705
		% within Commit 20%	37.3%	32.1%	25.5%	5.1%	100.0%
		% within Property Type	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	37.3%	32.1%	25.5%	5.1%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.693[a]	3	.875
Likelihood Ratio	1.304	3	.728
Linear-by-Linear Association	.543	1	.461
N of Valid Cases	705		

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .61.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.031	.875
	Cramer's V	.031	.875
	N of Valid Cases	705	

Commit 20% * External Wall

Crosstab

			External Wall				
			1 solid	2 cavity	3 timber	4 other	Total
Commit 20%	1 yes	Count	7	5	0	0	12
		% within Commit 20%	58.3%	41.7%	.0%	.0%	100.0%
		% within External Wall	2.0%	1.6%	.0%	.0%	1.7%
		% of Total	1.0%	.7%	.0%	.0%	1.7%
	2 no	Count	335	302	15	41	693
		% within Commit 20%	48.3%	43.6%	2.2%	5.9%	100.0%
		% within External Wall	98.0%	98.4%	100.0%	100.0%	98.3%
		% of Total	47.5%	42.8%	2.1%	5.8%	98.3%
	Total	Count	342	307	15	41	705
		% within Commit 20%	48.5%	43.5%	2.1%	5.8%	100.0%
		% within External Wall	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	48.5%	43.5%	2.1%	5.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.222[a]	3	.748
Likelihood Ratio	2.161	3	.540
Linear-by-Linear Association	1.114	1	.291
N of Valid Cases	705		

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is .26.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.042	.748
	Cramer's V	.042	.748
	N of Valid Cases	705	

Act on CO_2 * Property Age

Crosstab

			Property Age		

			1 pre 1929	2 between 1930-1975	3 between 1976-2006	4 post 2007	Total
Act on CO_2	1 yes	Count	7	13	6	1	27
		% within Act on CO_2	25.9%	48.1%	22.2%	3.7%	100.0%
		% within Property Age	5.3%	3.0%	4.8%	4.8%	3.8%
		% of Total	1.0%	1.8%	.9%	.1%	3.8%
	2 no	Count	125	415	118	20	678
		% within Act on CO_2	18.4%	61.2%	17.4%	2.9%	100.0%
		% within Property Age	94.7%	97.0%	95.2%	95.2%	96.2%
		% of Total	17.7%	58.9%	16.7%	2.8%	96.2%
	Total	Count	132	428	124	21	705
		% within Act on CO_2	18.7%	60.7%	17.6%	3.0%	100.0%
		% within Property Age	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	18.7%	60.7%	17.6%	3.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.900[a]	3	.593
Likelihood Ratio	1.844	3	.605
Linear-by-Linear Association	.007	1	.932
N of Valid Cases	705		

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is .80.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.052	.593
	Cramer's V	.052	.593
	N of Valid Cases	705	

Act on CO_2 * Property Type

Crosstab

			Property Type				
			1 detached	2 semi-detached	3 terraced	4 other	Total
Act on CO_2	1 yes	Count	6	8	11	2	27
		% within Act on CO_2	22.2%	29.6%	40.7%	7.4%	100.0%
		% within Property Type	2.3%	3.5%	6.1%	5.6%	3.8%
		% of Total	.9%	1.1%	1.6%	.3%	3.8%
	2 no	Count	257	218	169	34	678
		% within Act on CO_2	37.9%	32.2%	24.9%	5.0%	100.0%
		% within Property Type	97.7%	96.5%	93.9%	94.4%	96.2%
		% of Total	36.5%	30.9%	24.0%	4.8%	96.2%
	Total	Count	263	226	180	36	705
		% within Act on CO_2	37.3%	32.1%	25.5%	5.1%	100.0%
		% within Property Type	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	37.3%	32.1%	25.5%	5.1%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.598[a]	3	.204
Likelihood Ratio	4.469	3	.215
Linear-by-Linear Association	3.041	1	.081
N of Valid Cases	705		

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 1.38.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.081	.204
	Cramer's V	.081	.204
	N of Valid Cases	705	

Act on CO_2 * External Wall

Crosstab

			External Wall	

			1 solid	2 cavity	3 timber	4 other	Total
Act on CO_2	1 yes	Count	16	11	0	0	27
		% within Act on CO_2	59.3%	40.7%	.0%	.0%	100.0%
		% within External Wall	4.7%	3.6%	.0%	.0%	3.8%
		% of Total	2.3%	1.6%	.0%	.0%	3.8%
	2 no	Count	326	296	15	41	678
		% within Act on CO_2	48.1%	43.7%	2.2%	6.0%	100.0%
		% within External Wall	95.3%	96.4%	100.0%	100.0%	96.2%
		% of Total	46.2%	42.0%	2.1%	5.8%	96.2%
	Total	Count	342	307	15	41	705
		% within Act on CO_2	48.5%	43.5%	2.1%	5.8%	100.0%
		% within External Wall	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	48.5%	43.5%	2.1%	5.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.949[a]	3	.399
Likelihood Ratio	5.051	3	.168
Linear-by-Linear Association	2.725	1	.099
N of Valid Cases	705		

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is .57.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.065	.399
	Cramer's V	.065	.399
	N of Valid Cases	705	

Save Today Save Tomorrow * Property Age

Crosstab

			Property Age				
			1 pre 1929	2 between 1930-1975	3 between 1976-2006	4 post 2007	Total
Save Today Save Tomorrow	1 yes	Count	5	7	2	0	14
		% within Save Today Save Tomorrow	35.7%	50.0%	14.3%	.0%	100.0%
		% within Property Age	3.8%	1.6%	1.6%	.0%	2.0%
		% of Total	.7%	1.0%	.3%	.0%	2.0%
	2 no	Count	127	421	122	21	691
		% within Save Today Save Tomorrow	18.4%	60.9%	17.7%	3.0%	100.0%
		% within Property Age	96.2%	98.4%	98.4%	100.0%	98.0%
		% of Total	18.0%	59.7%	17.3%	3.0%	98.0%
	Total	Count	132	428	124	21	705
		% within Save Today Save Tomorrow	18.7%	60.7%	17.6%	3.0%	100.0%
		% within Property Age	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	18.7%	60.7%	17.6%	3.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.986[a]	3	.394
Likelihood Ratio	2.968	3	.397
Linear-by-Linear Association	2.048	1	.152
N of Valid Cases	705		

a. 3 cells (37.5%) have expected count less than 5. The minimum expected count is .42.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.065	.394
	Cramer's V	.065	.394
	N of Valid Cases	705	

Save Today Save Tomorrow * Property Type

Crosstab

			Property Type		

			1 detached	2 semi-detached	3 terraced	4 other	Total
Save Today Save Tomorrow	1 yes	Count	4	3	6	1	14
		% within Save Today Save Tomorrow	28.6%	21.4%	42.9%	7.1%	100.0%
		% within Property Type	1.5%	1.3%	3.3%	2.8%	2.0%
		% of Total	.6%	.4%	.9%	.1%	2.0%
	2 no	Count	259	223	174	35	691
		% within Save Today Save Tomorrow	37.5%	32.3%	25.2%	5.1%	100.0%
		% within Property Type	98.5%	98.7%	96.7%	97.2 %	98.0%
		% of Total	36.7%	31.6%	24.7%	5.0%	98.0%
	Total	Count	263	226	180	36	705
		% within Save Today Save Tomorrow	37.3%	32.1%	25.5%	5.1%	100.0%
		% within Property Type	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	37.3%	32.1%	25.5%	5.1%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.591[a]	3	.459
Likelihood Ratio	2.388	3	.496
Linear-by-Linear Association	1.161	1	.281
N of Valid Cases	705		

a. 3 cells (37.5%) have expected count less than 5. The minimum expected count is .71.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.061	.459
	Cramer's V	.061	.459
	N of Valid Cases	705	

Save Today Save Tomorrow * External Wall

Crosstab

			External Wall				
			1 solid	2 cavity	3 timber	4 other	Total
Save Today Save Tomorrow	1 yes	Count	10	4	0	0	14
		% within Save Today Save Tomorrow	71.4%	28.6%	.0%	.0%	100.0%
		% within External Wall	2.9%	1.3%	.0%	.0%	2.0%
		% of Total	1.4%	.6%	.0%	.0%	2.0%
	2 no	Count	332	303	15	41	691
		% within Save Today Save Tomorrow	48.0%	43.8%	2.2%	5.9%	100.0%
		% within External Wall	97.1%	98.7%	100.0%	100.0%	98.0%
		% of Total	47.1%	43.0%	2.1%	5.8%	98.0%
	Total	Count	342	307	15	41	705
		% within Save Today Save Tomorrow	48.5%	43.5%	2.1%	5.8%	100.0%
		% within External Wall	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	48.5%	43.5%	2.1%	5.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.417[a]	3	.332
Likelihood Ratio	4.435	3	.218
Linear-by-Linear Association	2.722	1	.099
N of Valid Cases	705		

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is .30.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.070	.332
	Cramer's V	.070	.332
	N of Valid Cases	705	

Savers report * Property Age

Crosstab

			Property Age	

			1 pre 1929	2 between 1930-1975	3 between 1976-2006	4 post 2007	Total
Savers report	1 yes	Count	6	25	7	0	38
		% within Savers report	15.8%	65.8%	18.4%	.0%	100.0%
		% within Property Age	4.5%	5.8%	5.6%	.0%	5.4%
		% of Total	.9%	3.5%	1.0%	.0%	5.4%
	2 no	Count	126	403	117	21	667
		% within Savers report	18.9%	60.4%	17.5%	3.1%	100.0%
		% within Property Age	95.5%	94.2%	94.4%	100.0%	94.6%
		% of Total	17.9%	57.2%	16.6%	3.0%	94.6%
	Total	Count	132	428	124	21	705
		% within Savers report	18.7%	60.7%	17.6%	3.0%	100.0%
		% within Property Age	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	18.7%	60.7%	17.6%	3.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.568[a]	3	.667
Likelihood Ratio	2.704	3	.440
Linear-by-Linear Association	.040	1	.841
N of Valid Cases	705		

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 1.13.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.047	.667
	Cramer's V	.047	.667
	N of Valid Cases	705	

Savers report * Property Type

Crosstab

			Property Type				
			1 detached	2 semi-detached	3 terraced	4 other	Total
Savers report	1 yes	Count	14	15	8	1	38
		% within Savers report	36.8%	39.5%	21.1%	2.6%	100.0%
		% within Property Type	5.3%	6.6%	4.4%	2.8%	5.4%
		% of Total	2.0%	2.1%	1.1%	.1%	5.4%
	2 no	Count	249	211	172	35	667
		% within Savers report	37.3%	31.6%	25.8%	5.2%	100.0%
		% within Property Type	94.7%	93.4%	95.6%	97.2%	94.6%
		% of Total	35.3%	29.9%	24.4%	5.0%	94.6%
	Total	Count	263	226	180	36	705
		% within Savers report	37.3%	32.1%	25.5%	5.1%	100.0%
		% within Property Type	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	37.3%	32.1%	25.5%	5.1%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.489[a]	3	.685
Likelihood Ratio	1.562	3	.668
Linear-by-Linear Association	.540	1	.462
N of Valid Cases	705		

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 1.94.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.046	.685
	Cramer's V	.046	.685
	N of Valid Cases	705	

Savers report * External Wall

Crosstab

			External Wall	

			1 solid	2 cavity	3 timber	4 other	Total
Savers report	1 yes	Count	18	19	0	1	38
		% within Savers report	47.4%	50.0%	.0%	2.6%	100.0%
		% within External Wall	5.3%	6.2%	.0%	2.4%	5.4%
		% of Total	2.6%	2.7%	.0%	.1%	5.4%
	2 no	Count	324	288	15	40	667
		% within Savers report	48.6%	43.2%	2.2%	6.0%	100.0%
		% within External Wall	94.7%	93.8%	100.0%	97.6%	94.6%
		% of Total	46.0%	40.9%	2.1%	5.7%	94.6%
	Total	Count	342	307	15	41	705
		% within Savers report	48.5%	43.5%	2.1%	5.8%	100.0%
		% within External Wall	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	48.5%	43.5%	2.1%	5.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.950[a]	3	.583
Likelihood Ratio	2.912	3	.405
Linear-by-Linear Association	.471	1	.493
N of Valid Cases	705		

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is .81.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.053	.583
	Cramer's V	.053	.583
	N of Valid Cases	705	

Energy for Good * Property Age

Crosstab

			Property Age				
			1 pre 1929	2 between 1930-1975	3 between 1976-2006	4 post 2007	Total
Energy for Good	1 yes	Count	0	1	0	0	1
		% within Energy for Good	.0%	100.0%	.0%	.0%	100.0%
		% within Property Age	.0%	.2%	.0%	.0%	.1%
		% of Total	.0%	.1%	.0%	.0%	.1%
	2 no	Count	132	427	124	21	704
		% within Energy for Good	18.8%	60.7%	17.6%	3.0%	100.0%
		% within Property Age	100.0%	99.8%	100.0%	100.0%	99.9%
		% of Total	18.7%	60.6%	17.6%	3.0%	99.9%
	Total	Count	132	428	124	21	705
		% within Energy for Good	18.7%	60.7%	17.6%	3.0%	100.0%
		% within Property Age	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	18.7%	60.7%	17.6%	3.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.648[a]	3	.885
Likelihood Ratio	.999	3	.801
Linear-by-Linear Association	.005	1	.945
N of Valid Cases	705		

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .03.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.030	.885
	Cramer's V	.030	.885
	N of Valid Cases	705	

Energy for Good * Property Type

Crosstab

			Property Type	

			1 detached	2 semi-detached	3 terraced	4 other	Total
Energy for Good	1 yes	Count	1	0	0	0	1
		% within Energy for Good	100.0%	.0%	.0%	.0%	100.0%
		% within Property Type	.4%	.0%	.0%	.0%	.1%
		% of Total	.1%	.0%	.0%	.0%	.1%
	2 no	Count	262	226	180	36	704
		% within Energy for Good	37.2%	32.1%	25.6%	5.1%	100.0%
		% within Property Type	99.6%	100.0%	100.0%	100.0%	99.9%
		% of Total	37.2%	32.1%	25.5%	5.1%	99.9%
	Total	Count	263	226	180	36	705
		% within Energy for Good	37.3%	32.1%	25.5%	5.1%	100.0%
		% within Property Type	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	37.3%	32.1%	25.5%	5.1%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.683[a]	3	.641
Likelihood Ratio	1.974	3	.578
Linear-by-Linear Association	.821	1	.365
N of Valid Cases	705		

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .05.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.049	.641
	Cramer's V	.049	.641
	N of Valid Cases	705	

Energy for Good * External Wall

Crosstab

			External Wall				
			1 solid	2 cavity	3 timber	4 other	Total
Energy for Good	1 yes	Count	0	1	0	0	1
		% within Energy for Good	.0%	100.0%	.0%	.0%	100.0%
		% within External Wall	.0%	.3%	.0%	.0%	.1%
		% of Total	.0%	.1%	.0%	.0%	.1%
	2 no	Count	342	306	15	41	704
		% within Energy for Good	48.6%	43.5%	2.1%	5.8%	100.0%
		% within External Wall	100.0%	99.7%	100.0%	100.0%	99.9%
		% of Total	48.5%	43.4%	2.1%	5.8%	99.9%
	Total	Count	342	307	15	41	705
		% within Energy for Good	48.5%	43.5%	2.1%	5.8%	100.0%
		% within External Wall	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	48.5%	43.5%	2.1%	5.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.298[a]	3	.730
Likelihood Ratio	1.665	3	.645
Linear-by-Linear Association	.089	1	.766
N of Valid Cases	705		

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .02.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.043	.730
	Cramer's V	.043	.730
	N of Valid Cases	705	

HEC report * Property Age

Crosstab

			Property Age	

			1 pre 1929	2 between 1930-1975	3 between 1976-2006	4 post 2007	Total
HEC report	1 yes	Count	10	23	7	2	42
		% within HEC report	23.8%	54.8%	16.7%	4.8%	100.0%
		% within Property Age	7.6%	5.4%	5.6%	9.5%	6.0%
		% of Total	1.4%	3.3%	1.0%	.3%	6.0%
	2 no	Count	122	405	117	19	663
		% within HEC report	18.4%	61.1%	17.6%	2.9%	100.0%
		% within Property Age	92.4%	94.6%	94.4%	90.5%	94.0%
		% of Total	17.3%	57.4%	16.6%	2.7%	94.0%
	Total	Count	132	428	124	21	705
		% within HEC report	18.7%	60.7%	17.6%	3.0%	100.0%
		% within Property Age	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	18.7%	60.7%	17.6%	3.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.376[a]	3	.711
Likelihood Ratio	1.269	3	.737
Linear-by-Linear Association	.055	1	.814
N of Valid Cases	705		

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 1.25.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.044	.711
	Cramer's V	.044	.711
	N of Valid Cases	705	

HEC report * Property Type

Crosstab

			Property Type				
			1 detached	2 semi-detached	3 terraced	4 other	Total
HEC report	1 yes	Count	16	15	10	1	42
		% within HEC report	38.1%	35.7%	23.8%	2.4%	100.0%
		% within Property Type	6.1%	6.6%	5.6%	2.8%	6.0%
		% of Total	2.3%	2.1%	1.4%	.1%	6.0%
	2 no	Count	247	211	170	35	663
		% within HEC report	37.3%	31.8%	25.6%	5.3%	100.0%
		% within Property Type	93.9%	93.4%	94.4%	97.2%	94.0%
		% of Total	35.0%	29.9%	24.1%	5.0%	94.0%
	Total	Count	263	226	180	36	705
		% within HEC report	37.3%	32.1%	25.5%	5.1%	100.0%
		% within Property Type	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	37.3%	32.1%	25.5%	5.1%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.895[a]	3	.827
Likelihood Ratio	1.042	3	.791
Linear-by-Linear Association	.558	1	.455
N of Valid Cases	705		

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 2.14.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.036	.827
	Cramer's V	.036	.827
	N of Valid Cases	705	

HEC report * External Wall

Crosstab

			External Wall	

			1 solid	2 cavity	3 timber	4 other	Total
HEC report	1 yes	Count	21	20	0	1	42
		% within HEC report	50.0%	47.6%	.0%	2.4%	100.0%
		% within External Wall	6.1%	6.5%	.0%	2.4%	6.0%
		% of Total	3.0%	2.8%	.0%	.1%	6.0%
	2 no	Count	321	287	15	40	663
		% within HEC report	48.4%	43.3%	2.3%	6.0%	100.0%
		% within External Wall	93.9%	93.5%	100.0%	97.6%	94.0%
		% of Total	45.5%	40.7%	2.1%	5.7%	94.0%
	Total	Count	342	307	15	41	705
		% within HEC report	48.5%	43.5%	2.1%	5.8%	100.0%
		% within External Wall	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	48.5%	43.5%	2.1%	5.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.047[a]	3	.563
Likelihood Ratio	3.181	3	.365
Linear-by-Linear Association	.914	1	.339
N of Valid Cases	705		

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is .89.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.054	.563
	Cramer's V	.054	.563
	N of Valid Cases	705	

Renewable energy technology programmes

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
PV * Property Age	705	97.8%	16	2.2%	721	100.0%
PV * Property Type	705	97.8%	16	2.2%	721	100.0%
PV * External Wall	705	97.8%	16	2.2%	721	100.0%
Clear Skies * Property Age	705	97.8%	16	2.2%	721	100.0%
Clear Skies * Property Type	705	97.8%	16	2.2%	721	100.0%
Clear Skies * External Wall	705	97.8%	16	2.2%	721	100.0%
LCBP * Property Age	705	97.8%	16	2.2%	721	100.0%
LCBP * Property Type	705	97.8%	16	2.2%	721	100.0%
LCBP * External Wall	705	97.8%	16	2.2%	721	100.0%

PV * Property Age

Crosstab

			Property Age				
			1 pre 1929	2 between 1930-1975	3 between 1976-2006	4 post 2007	Total
PV	1 yes	Count	0	6	1	0	7
		% within PV	.0%	85.7%	14.3%	.0%	100.0%
		% within Property Age	.0%	1.4%	.8%	.0%	1.0%
		% of Total	.0%	.9%	.1%	.0%	1.0%
	2 no	Count	132	422	123	21	698
		% within PV	18.9%	60.5%	17.6%	3.0%	100.0%
		% within Property Age	100.0%	98.6%	99.2%	100.0%	99.0%
		% of Total	18.7%	59.9%	17.4%	3.0%	99.0%
	Total	Count	132	428	124	21	705
		% within PV	18.7%	60.7%	17.6%	3.0%	100.0%
		% within Property Age	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	18.7%	60.7%	17.6%	3.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.306[a]	3	.511

Likelihood Ratio	3.746	3	.290
Linear-by-Linear Association	.132	1	.717
N of Valid Cases	705		
a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .21.			

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.057	.511
	Cramer's V	.057	.511
	N of Valid Cases	705	

PV * Property Type

Crosstab

			Property Type				
			1 detached	2 semi-detached	3 terraced	4 other	Total
PV	1 yes	Count	3	0	4	0	7
		% within PV	42.9%	.0%	57.1%	.0%	100.0%
		% within Property Type	1.1%	.0%	2.2%	.0%	1.0%
		% of Total	.4%	.0%	.6%	.0%	1.0%
	2 no	Count	260	226	176	36	698
		% within PV	37.2%	32.4%	25.2%	5.2%	100.0%
		% within Property Type	98.9%	100.0%	97.8%	100.0%	99.0%
		% of Total	36.9%	32.1%	25.0%	5.1%	99.0%
	Total	Count	263	226	180	36	705
		% within PV	37.3%	32.1%	25.5%	5.1%	100.0%
		% within Property Type	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	37.3%	32.1%	25.5%	5.1%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.453[a]	3	.141
Likelihood Ratio	7.332	3	.062
Linear-by-Linear Association	.016	1	.901
N of Valid Cases	705		
a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .36.			

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.088	.141
	Cramer's V	.088	.141
	N of Valid Cases	705	

PV * External Wall

Crosstab

			External Wall				
			1 solid	2 cavity	3 timber	4 other	Total
PV	1 yes	Count	3	4	0	0	7
		% within PV	42.9%	57.1%	.0%	.0%	100.0%
		% within External Wall	.9%	1.3%	.0%	.0%	1.0%
		% of Total	.4%	.6%	.0%	.0%	1.0%
	2 no	Count	339	303	15	41	698
		% within PV	48.6%	43.4%	2.1%	5.9%	100.0%
		% within External Wall	99.1%	98.7%	100.0%	100.0%	99.0%
		% of Total	48.1%	43.0%	2.1%	5.8%	99.0%
	Total	Count	342	307	15	41	705
		% within PV	48.5%	43.5%	2.1%	5.8%	100.0%
		% within External Wall	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	48.5%	43.5%	2.1%	5.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.908[a]	3	.823
Likelihood Ratio	1.439	3	.696

Linear-by-Linear Association	.145	1	.704
N of Valid Cases	705		
a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .15.			

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.036	.823
	Cramer's V	.036	.823
N of Valid Cases		705	

Clear Skies * Property Age

Crosstab

			Property Age				
			1 pre 1929	2 between 1930-1975	3 between 1976-2006	4 post 2007	Total
Clear Skies	1 yes	Count	0	5	2	0	7
		% within Clear Skies	.0%	71.4%	28.6%	.0%	100.0%
		% within Property Age	.0%	1.2%	1.6%	.0%	1.0%
		% of Total	.0%	.7%	.3%	.0%	1.0%
	2 no	Count	132	423	122	21	698
		% within Clear Skies	18.9%	60.6%	17.5%	3.0%	100.0%
		% within Property Age	100.0%	98.8%	98.4%	100.0%	99.0%
		% of Total	18.7%	60.0%	17.3%	3.0%	99.0%
	Total	Count	132	428	124	21	705
		% within Clear Skies	18.7%	60.7%	17.6%	3.0%	100.0%
		% within Property Age	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	18.7%	60.7%	17.6%	3.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.153[a]	3	.541
Likelihood Ratio	3.588	3	.310
Linear-by-Linear Association	.830	1	.362
N of Valid Cases	705		
a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .21.			

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.055	.541
	Cramer's V	.055	.541
N of Valid Cases		705	

Clear Skies * Property Type

Crosstab

			Property Type				
			1 detached	2 semi-detached	3 terraced	4 other	Total
Clear Skies	1 yes	Count	4	0	2	1	7
		% within Clear Skies	57.1%	.0%	28.6%	14.3%	100.0%
		% within Property Type	1.5%	.0%	1.1%	2.8%	1.0%
		% of Total	.6%	.0%	.3%	.1%	1.0%
	2 no	Count	259	226	178	35	698
		% within Clear Skies	37.1%	32.4%	25.5%	5.0%	100.0%
		% within Property Type	98.5%	100.0%	98.9%	97.2%	99.0%
		% of Total	36.7%	32.1%	25.2%	5.0%	99.0%
	Total	Count	263	226	180	36	705
		% within Clear Skies	37.3%	32.1%	25.5%	5.1%	100.0%
		% within Property Type	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	37.3%	32.1%	25.5%	5.1%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.205[a]	3	.240

Likelihood Ratio	5.961	3	.114
Linear-by-Linear Association	.195	1	.659
N of Valid Cases	705		
a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .36.			

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.077	.240
	Cramer's V	.077	.240
	N of Valid Cases	705	

Clear Skies * External Wall

Crosstab							
			External Wall				
			1 solid	2 cavity	3 timber	4 other	Total
Clear Skies	1 yes	Count	3	4	0	0	7
		% within Clear Skies	42.9%	57.1%	.0%	.0%	100.0%
		% within External Wall	.9%	1.3%	.0%	.0%	1.0%
		% of Total	.4%	.6%	.0%	.0%	1.0%
	2 no	Count	339	303	15	41	698
		% within Clear Skies	48.6%	43.4%	2.1%	5.9%	100.0%
		% within External Wall	99.1%	98.7%	100.0%	100.0%	99.0%
		% of Total	48.1%	43.0%	2.1%	5.8%	99.0%
	Total	Count	342	307	15	41	705
		% within Clear Skies	48.5%	43.5%	2.1%	5.8%	100.0%
		% within External Wall	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	48.5%	43.5%	2.1%	5.8%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.908[a]	3	.823
Likelihood Ratio	1.439	3	.696
Linear-by-Linear Association	.145	1	.704
N of Valid Cases	705		
a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .15.			

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.036	.823
	Cramer's V	.036	.823
	N of Valid Cases	705	

LCBP * Property Age

Crosstab							
			Property Age				
			1 pre 1929	2 between 1930-1975	3 between 1976-2006	4 post 2007	Total
LCBP	1 yes	Count	0	5	1	0	6
		% within LCBP	.0%	83.3%	16.7%	.0%	100.0%
		% within Property Age	.0%	1.2%	.8%	.0%	.9%
		% of Total	.0%	.7%	.1%	.0%	.9%
	2 no	Count	132	423	123	21	699
		% within LCBP	18.9%	60.5%	17.6%	3.0%	100.0%
		% within Property Age	100.0%	98.8%	99.2%	100.0%	99.1%
		% of Total	18.7%	60.0%	17.4%	3.0%	99.1%
	Total	Count	132	428	124	21	705
		% within LCBP	18.7%	60.7%	17.6%	3.0%	100.0%
		% within Property Age	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	18.7%	60.7%	17.6%	3.0%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.826[a]	3	.609
Likelihood Ratio	3.075	3	.380

Linear-by-Linear Association	.177	1	.674
N of Valid Cases	705		
a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .18.			

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.051	.609
	Cramer's V	.051	.609
	N of Valid Cases	705	

LCBP * Property Type

Crosstab							
			Property Type				
			1 detached	2 semi-detached	3 terraced	4 other	Total
LCBP	1 yes	Count	3	1	1	1	6
		% within LCBP	50.0%	16.7%	16.7%	16.7%	100.0%
		% within Property Type	1.1%	.4%	.6%	2.8%	.9%
		% of Total	.4%	.1%	.1%	.1%	.9%
	2 no	Count	260	225	179	35	699
		% within LCBP	37.2%	32.2%	25.6%	5.0%	100.0%
		% within Property Type	98.9%	99.6%	99.4%	97.2%	99.1%
		% of Total	36.9%	31.9%	25.4%	5.0%	99.1%
	Total	Count	263	226	180	36	705
		% within LCBP	37.3%	32.1%	25.5%	5.1%	100.0%
		% within Property Type	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	37.3%	32.1%	25.5%	5.1%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.479[a]	3	.479
Likelihood Ratio	1.983	3	.576
Linear-by-Linear Association	.256	1	.613
N of Valid Cases	705		
a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .31.			

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.059	.479
	Cramer's V	.059	.479
	N of Valid Cases	705	

LCBP * External Wall

Crosstab							
			External Wall				
			1 solid	2 cavity	3 timber	4 other	Total
LCBP	1 yes	Count	3	2	0	1	6
		% within LCBP	50.0%	33.3%	.0%	16.7%	100.0%
		% within External Wall	.9%	.7%	.0%	2.4%	.9%
		% of Total	.4%	.3%	.0%	.1%	.9%
	2 no	Count	339	305	15	40	699
		% within LCBP	48.5%	43.6%	2.1%	5.7%	100.0%
		% within External Wall	99.1%	99.3%	100.0%	97.6%	99.1%
		% of Total	48.1%	43.3%	2.1%	5.7%	99.1%
	Total	Count	342	307	15	41	705
		% within LCBP	48.5%	43.5%	2.1%	5.8%	100.0%
		% within External Wall	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	48.5%	43.5%	2.1%	5.8%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.502[a]	3	.682
Likelihood Ratio	1.231	3	.746

Linear-by-Linear Association	.535	1	.465
N of Valid Cases	705		
a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .13.			

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.046	.682
	Cramer's V	.046	.682
	N of Valid Cases	705	

4 What are the most and the least liked aspects of a programme and which need improvements?

Kendall's tau_b nonparametric correlations for programmes' features (Questions B3, B4 and B5) and respondents' gender (Question D10) and age (Question D11)

Correlations – most liked features				
			Gender	Age (Binned)
Kendall's tau_b	Free cfl	Correlation Coefficient	-.006	-.017
		Sig. (2-tailed)	.869	.635
		N	712	688
	Good value for money	Correlation Coefficient	.065	.050
		Sig. (2-tailed)	.082	.152
		N	712	688
	Educational	Correlation Coefficient	-.062	-.058
		Sig. (2-tailed)	.097	.096
		N	712	688
	Easy to take part in	Correlation Coefficient	.045	-.053
		Sig. (2-tailed)	.227	.129
		N	712	688
	Good service	Correlation Coefficient	.035	.066
		Sig. (2-tailed)	.347	.059
		N	712	688

Correlations – least liked features				
			Gender	Age (Binned)
Kendall's tau_b	Nothing	Correlation Coefficient	.066	-.008
		Sig. (2-tailed)	.080	.816
		N	712	688
	Missed Opportunity	Correlation Coefficient	-.041	-.030
		Sig. (2-tailed)	.279	.385
		N	712	688
	Wasted Time	Correlation Coefficient	-.031	.019
		Sig. (2-tailed)	.410	.579
		N	712	688
	Not Enough Choice	Correlation Coefficient	-.027	.002
		Sig. (2-tailed)	.473	.944
		N	712	688

Correlations – features needing improvements				
			Gender	Age (Binned)
Kendall's tau_b	Publicity	Correlation Coefficient	-.038	-.047
		Sig. (2-tailed)	.309	.181
		N	712	688
	Advice	Correlation Coefficient	-.013	-.006
		Sig. (2-tailed)	.734	.871
		N	712	688
	Incentives	Correlation Coefficient	.025	-.047
		Sig. (2-tailed)	.513	.178
		N	712	688
	Choice	Correlation Coefficient	-.033	-.023
		Sig. (2-tailed)	.376	.501
		N	712	688

	Eligibility Criteria	Correlation Coefficient	.061	-.053
		Sig. (2-tailed)	.101	.130
		N	712	688
	Info on Progress	Correlation Coefficient	-.020	-.017
		Sig. (2-tailed)	.591	.623
		N	712	688

The Chi-square test of independence for programmes' features (Questions B3, B4 and B5) and respondents' gender (Question D10) and age (Question D11)

Case Processing Summary – most liked features						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Free cfl * Gender	333	46.2%	388	53.8%	721	100.0%
Free cfl * Age (Binned)	318	44.1%	403	55.9%	721	100.0%
Good value for money * Gender	333	46.2%	388	53.8%	721	100.0%
Good value for money * Age (Binned)	318	44.1%	403	55.9%	721	100.0%
Educational * Gender	333	46.2%	388	53.8%	721	100.0%
Educational * Age (Binned)	318	44.1%	403	55.9%	721	100.0%
Easy to take part in * Gender	333	46.2%	388	53.8%	721	100.0%
Easy to take part in * Age (Binned)	318	44.1%	403	55.9%	721	100.0%
Good service * Gender	333	46.2%	388	53.8%	721	100.0%
Good service * Age (Binned)	318	44.1%	403	55.9%	721	100.0%

Free cfl * Gender

Crosstab					
			Gender		
			1 male	2 female	Total
Free cfl	1 yes	Count	53	59	112
		% within Free cfl	47.3%	52.7%	100.0%
		% within Gender	32.3%	34.9%	33.6%
		% of Total	15.9%	17.7%	33.6%
	2 no	Count	111	110	221
		% within Free cfl	50.2%	49.8%	100.0%
		% within Gender	67.7%	65.1%	66.4%
		% of Total	33.3%	33.0%	66.4%
	Total	Count	164	169	333
		% within Free cfl	49.2%	50.8%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	49.2%	50.8%	100.0%

Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.251[a]	1	.616		
Continuity Correction[b]	.148	1	.700		
Likelihood Ratio	.251	1	.616		
Fisher's Exact Test				.644	.350
Linear-by-Linear Association	.250	1	.617		
N of Valid Cases	333				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 55.16.

b. Computed only for a 2x2 table

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	-.027	.616
	Cramer's V	.027	.616
	N of Valid Cases	333	

Free cfl * Age (Binned)

Crosstab							
			Age (Binned)				
			1 Over 70	2 between 57-69	3 between 42-56	4 41 or under	Total

Free cfl	1 yes	Count	29	25	24	30	108
		% within Free cfl	26.9%	23.1%	22.2%	27.8%	100.0%
		% within Age (Binned)	36.3%	29.4%	30.0%	41.1%	34.0%
		% of Total	9.1%	7.9%	7.5%	9.4%	34.0%
	2 no	Count	51	60	56	43	210
		% within Free cfl	24.3%	28.6%	26.7%	20.5%	100.0%
		% within Age (Binned)	63.8%	70.6%	70.0%	58.9%	66.0%
		% of Total	16.0%	18.9%	17.6%	13.5%	66.0%
	Total	Count	80	85	80	73	318
		% within Free cfl	25.2%	26.7%	25.2%	23.0%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	25.2%	26.7%	25.2%	23.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.188[a]	3	.364
Likelihood Ratio	3.168	3	.366
Linear-by-Linear Association	.339	1	.561
N of Valid Cases	318		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 24.79.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.100	.364
	Cramer's V	.100	.364
	N of Valid Cases	318	

Good value for money * Gender

Crosstab

			Gender		
			1 male	2 female	Total
Good value for money	1 yes	Count	48	37	85
		% within Good value for money	56.5%	43.5%	100.0%
		% within Gender	29.3%	21.9%	25.5%
		% of Total	14.4%	11.1%	25.5%
	2 no	Count	116	132	248
		% within Good value for money	46.8%	53.2%	100.0%
		% within Gender	70.7%	78.1%	74.5%
		% of Total	34.8%	39.6%	74.5%
	Total	Count	164	169	333
		% within Good value for money	49.2%	50.8%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	49.2%	50.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	2.381[a]	1	.123		
Continuity Correction[b]	2.009	1	.156		
Likelihood Ratio	2.385	1	.122		
Fisher's Exact Test				.133	.078
Linear-by-Linear Association	2.374	1	.123		
N of Valid Cases	333				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 41.86.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.085	.123
	Cramer's V	.085	.123
	N of Valid Cases	333	

Good value for money * Age (Binned)

Crosstab

			Age (Binned)				
			1 Over 70	Between 57-69	3 between 42-56	4 41 or under	Total
Good value for money	1 yes	Count	23	28.0%	23	12	82
		% within Good value for money	28.0%	28.8%	28.0%	14.6%	100.0%
		% within Age (Binned)	28.8%	7.2%	28.8%	16.4%	25.8%
		% of Total	7.2%	57	7.2%	3.8%	25.8%
	2 no	Count	57	24.2%	57	61	236
		% within Good value for money	24.2%	71.3%	24.2%	25.8%	100.0%
		% within Age (Binned)	71.3%	17.9%	71.3%	83.6%	74.2%
		% of Total	17.9%	80	17.9%	19.2%	74.2%
	Total	Count	80	25.2%	80	73	318
		% within Good value for money	25.2%	100.0%	25.2%	23.0%	100.0%
		% within Age (Binned)	100.0%	25.2%	100.0%	100.0%	100.0%
		% of Total	25.2%	26.7%	25.2%	23.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.334[a]	3	.228
Likelihood Ratio	4.647	3	.200
Linear-by-Linear Association	2.520	1	.112
N of Valid Cases	318		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 18.82.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.117	.228
	Cramer's V	.117	.228
	N of Valid Cases	318	

Educational * Gender

Crosstab

			Gender		
			1 male	2 female	Total
Educational	1 yes	Count	25	41	66
		% within Educational	37.9%	62.1%	100.0%
		% within Gender	15.2%	24.3%	19.8%
		% of Total	7.5%	12.3%	19.8%
	2 no	Count	139	128	267
		% within Educational	52.1%	47.9%	100.0%
		% within Gender	84.8%	75.7%	80.2%
		% of Total	41.7%	38.4%	80.2%
	Total	Count	164	169	333
		% within Educational	49.2%	50.8%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	49.2%	50.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.258[a]	1	.039		
Continuity Correction[b]	3.709	1	.054		
Likelihood Ratio	4.296	1	.038		
Fisher's Exact Test				.040	.027
Linear-by-Linear Association	4.245	1	.039		
N of Valid Cases	333				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 32.50.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	-.113	.039
	Cramer's V	.113	.039
	N of Valid Cases	333	

Educational * Age (Binned)

Crosstab							
			Age (Binned)				
			1 Over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Educational	1 yes	Count	13	15	17	20	65
		% within Educational	20.0%	23.1%	26.2%	30.8%	100.0%
		% within Age (Binned)	16.3%	17.6%	21.3%	27.4%	20.4%
		% of Total	4.1%	4.7%	5.3%	6.3%	20.4%
	2 no	Count	67	70	63	53	253
		% within Educational	26.5%	27.7%	24.9%	20.9%	100.0%
		% within Age (Binned)	83.8%	82.4%	78.8%	72.6%	79.6%
		% of Total	21.1%	22.0%	19.8%	16.7%	79.6%
	Total	Count	80	85	80	73	318
		% within Educational	25.2%	26.7%	25.2%	23.0%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	25.2%	26.7%	25.2%	23.0%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.476[a]	3	.324
Likelihood Ratio	3.386	3	.336
Linear-by-Linear Association	3.191	1	.074
N of Valid Cases	318		
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 14.92.			

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.105	.324
	Cramer's V	.105	.324
	N of Valid Cases	318	

Easy to take part in * Gender

Crosstab					
			Gender		
			1 male	2 female	Total
Easy to take part in	1 yes	Count	31	25	56
		% within Easy to take part in	55.4%	44.6%	100.0%
		% within Gender	18.9%	14.8%	16.8%
		% of Total	9.3%	7.5%	16.8%
	2 no	Count	133	144	277
		% within Easy to take part in	48.0%	52.0%	100.0%
		% within Gender	81.1%	85.2%	83.2%
		% of Total	39.9%	43.2%	83.2%
	Total	Count	164	169	333
		% within Easy to take part in	49.2%	50.8%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	49.2%	50.8%	100.0%

Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.005[a]	1	.316		
Continuity Correction[b]	.733	1	.392		
Likelihood Ratio	1.006	1	.316		
Fisher's Exact Test				.380	.196
Linear-by-Linear Association	1.002	1	.317		
N of Valid Cases	333				
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 27.58.					
b. Computed only for a 2x2 table					

Symmetric Measures			
		Value	Approx. Sig.

Nominal by Nominal	Phi	.055	.316
	Cramer's V	.055	.316
	N of Valid Cases	333	

Easy to take part in * Age (Binned)

Crosstab

			Age (Binned)				
			1 Over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Easy to take part in	1 yes	Count	9	14	12	16	51
		% within Easy to take part in	17.6%	27.5%	23.5%	31.4%	100.0%
		% within Age (Binned)	11.3%	16.5%	15.0%	21.9%	16.0%
		% of Total	2.8%	4.4%	3.8%	5.0%	16.0%
	2 no	Count	71	71	68	57	267
		% within Easy to take part in	26.6%	26.6%	25.5%	21.3%	100.0%
		% within Age (Binned)	88.8%	83.5%	85.0%	78.1%	84.0%
		% of Total	22.3%	22.3%	21.4%	17.9%	84.0%
	Total	Count	80	85	80	73	318
		% within Easy to take part in	25.2%	26.7%	25.2%	23.0%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	25.2%	26.7%	25.2%	23.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.312[a]	3	.346
Likelihood Ratio	3.288	3	.349
Linear-by-Linear Association	2.581	1	.108
N of Valid Cases	318		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 11.71.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.102	.346
	Cramer's V	.102	.346
	N of Valid Cases	318	

Good service * Gender

Crosstab

			Gender		
			1 male	2 female	Total
Good service	1 yes	Count	26	22	48
		% within Good service	54.2%	45.8%	100.0%
		% within Gender	15.9%	13.0%	14.4%
		% of Total	7.8%	6.6%	14.4%
	2 no	Count	138	147	285
		% within Good service	48.4%	51.6%	100.0%
		% within Gender	84.1%	87.0%	85.6%
		% of Total	41.4%	44.1%	85.6%
	Total	Count	164	169	333
		% within Good service	49.2%	50.8%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	49.2%	50.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.543[a]	1	.461		
Continuity Correction[b]	.337	1	.562		
Likelihood Ratio	.543	1	.461		
Fisher's Exact Test				.533	.281
Linear-by-Linear Association	.541	1	.462		
N of Valid Cases	333				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 23.64.

b. Computed only for a 2x2 table

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.040	.461
	Cramer's V	.040	.461
	N of Valid Cases	333	

Good service * Age (Binned)

Crosstab							
			Age (Binned)				
			1 Over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Good service	1 yes	Count	15	15	8	7	45
		% within Good service	33.3%	33.3%	17.8%	15.6%	100.0%
		% within Age (Binned)	18.8%	17.6%	10.0%	9.6%	14.2%
		% of Total	4.7%	4.7%	2.5%	2.2%	14.2%
	2 no	Count	65	70	72	66	273
		% within Good service	23.8%	25.6%	26.4%	24.2%	100.0%
		% within Age (Binned)	81.3%	82.4%	90.0%	90.4%	85.8%
		% of Total	20.4%	22.0%	22.6%	20.8%	85.8%
	Total	Count	80	85	80	73	318
		% within Good service	25.2%	26.7%	25.2%	23.0%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	25.2%	26.7%	25.2%	23.0%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.633[a]	3	.201
Likelihood Ratio	4.718	3	.194
Linear-by-Linear Association	3.978	1	.046
N of Valid Cases	318		
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 10.33.			

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.121	.201
	Cramer's V	.121	.201
	N of Valid Cases	318	

Case Processing Summary – least liked features						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Nothing * Gender	227	31.5%	494	68.5%	721	100.0%
Nothing * Age (Binned)	219	30.4%	502	69.6%	721	100.0%
Missed Opportunity * Gender	227	31.5%	494	68.5%	721	100.0%
Missed Opportunity * Age (Binned)	219	30.4%	502	69.6%	721	100.0%
Wasted Time * Gender	227	31.5%	494	68.5%	721	100.0%
Wasted Time * Age (Binned)	219	30.4%	502	69.6%	721	100.0%
Not Enough Choice * Gender	227	31.5%	494	68.5%	721	100.0%
Not Enough Choice * Age (Binned)	219	30.4%	502	69.6%	721	100.0%

Nothing * Gender

Crosstab					
			Gender		
			1 male	2 female	Total
Nothing	1 Yes	Count	35	24	59
		% within Nothing	59.3%	40.7%	100.0%
		% within Gender	32.1%	20.3%	26.0%
		% of Total	15.4%	10.6%	26.0%
	2 no	Count	74	94	168
		% within Nothing	44.0%	56.0%	100.0%
		% within Gender	67.9%	79.7%	74.0%
		% of Total	32.6%	41.4%	74.0%

	Total	Count	109	118	227
		% within Nothing	48.0%	52.0%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	48.0%	52.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.081[a]	1	.043		
Continuity Correction[b]	3.492	1	.062		
Likelihood Ratio	4.093	1	.043		
Fisher's Exact Test				.050	.031
Linear-by-Linear Association	4.063	1	.044		
N of Valid Cases	227				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 28.33.
b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.134	.043
	Cramer's V	.134	.043
	N of Valid Cases	227	

Nothing * Age (Binned)

Crosstab

			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Nothing	1 Yes	Count	11	21	13	13	58
		% within Nothing	19.0%	36.2%	22.4%	22.4%	100.0%
		% within Age (Binned)	19.6%	37.5%	23.2%	25.5%	26.5%
		% of Total	5.0%	9.6%	5.9%	5.9%	26.5%
	2 no	Count	45	35	43	38	161
		% within Nothing	28.0%	21.7%	26.7%	23.6%	100.0%
		% within Age (Binned)	80.4%	62.5%	76.8%	74.5%	73.5%
		% of Total	20.5%	16.0%	19.6%	17.4%	73.5%
	Total	Count	56	56	56	51	219
		% within Nothing	25.6%	25.6%	25.6%	23.3%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	25.6%	25.6%	25.6%	23.3%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.170[a]	3	.160
Likelihood Ratio	5.020	3	.170
Linear-by-Linear Association	.019	1	.892
N of Valid Cases	219		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 13.51.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.154	.160
	Cramer's V	.154	.160
	N of Valid Cases	219	

Missed Opportunity * Gender

Crosstab

			Gender		
			1 male	2 female	Total
Missed Opportunity	1 yes	Count	21	31	52
		% within Missed Opportunity	40.4%	59.6%	100.0%
		% within Gender	19.3%	26.3%	22.9%
		% of Total	9.3%	13.7%	22.9%
	2 no	Count	88	87	175

		% within Missed Opportunity	50.3%	49.7%	100.0%
		% within Gender	80.7%	73.7%	77.1%
		% of Total	38.8%	38.3%	77.1%
	Total	Count	109	118	227
		% within Missed Opportunity	48.0%	52.0%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	48.0%	52.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.574[a]	1	.210		
Continuity Correction[b]	1.203	1	.273		
Likelihood Ratio	1.584	1	.208		
Fisher's Exact Test				.268	.136
Linear-by-Linear Association	1.568	1	.211		
N of Valid Cases	227				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 24.97.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	-.083	.210
	Cramer's V	.083	.210
	N of Valid Cases	227	

Missed Opportunity * Age (Binned)

Crosstab

			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Missed Opportunity	1 yes	Count	11	12	15	13	51
		% within Missed Opportunity	21.6%	23.5%	29.4%	25.5%	100.0%
		% within Age (Binned)	19.6%	21.4%	26.8%	25.5%	23.3%
		% of Total	5.0%	5.5%	6.8%	5.9%	23.3%
	2 no	Count	45	44	41	38	168
		% within Missed Opportunity	26.8%	26.2%	24.4%	22.6%	100.0%
		% within Age (Binned)	80.4%	78.6%	73.2%	74.5%	76.7%
		% of Total	20.5%	20.1%	18.7%	17.4%	76.7%
	Total	Count	56	56	56	51	219
		% within Missed Opportunity	25.6%	25.6%	25.6%	23.3%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	25.6%	25.6%	25.6%	23.3%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.047[a]	3	.790
Likelihood Ratio	1.050	3	.789
Linear-by-Linear Association	.810	1	.368
N of Valid Cases	219		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 11.88.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.069	.790
	Cramer's V	.069	.790
	N of Valid Cases	219	

Wasted Time * Gender

Crosstab

			Gender		
			1 male	2 female	Total
Wasted Time	1 yes	Count	21	29	50
		% within Wasted Time	42.0%	58.0%	100.0%

		% within Gender	19.3%	24.6%	22.0%
		% of Total	9.3%	12.8%	22.0%
	2 no	Count	88	89	177
		% within Wasted Time	49.7%	50.3%	100.0%
		% within Gender	80.7%	75.4%	78.0%
		% of Total	38.8%	39.2%	78.0%
	Total	Count	109	118	227
		% within Wasted Time	48.0%	52.0%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	48.0%	52.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.930[a]	1	.335		
Continuity Correction[b]	.647	1	.421		
Likelihood Ratio	.934	1	.334		
Fisher's Exact Test				.342	.211
Linear-by-Linear Association	.926	1	.336		
N of Valid Cases	227				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 24.01.
b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	-.064	.335
	Cramer's V	.064	.335
	N of Valid Cases	227	

Wasted Time * Age (Binned)

Crosstab

			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Wasted Time	1 yes	Count	16	7	13	10	46
		% within Wasted Time	34.8%	15.2%	28.3%	21.7%	100.0%
		% within Age (Binned)	28.6%	12.5%	23.2%	19.6%	21.0%
		% of Total	7.3%	3.2%	5.9%	4.6%	21.0%
	2 no	Count	40	49	43	41	173
		% within Wasted Time	23.1%	28.3%	24.9%	23.7%	100.0%
		% within Age (Binned)	71.4%	87.5%	76.8%	80.4%	79.0%
		% of Total	18.3%	22.4%	19.6%	18.7%	79.0%
	Total	Count	56	56	56	51	219
		% within Wasted Time	25.6%	25.6%	25.6%	23.3%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	25.6%	25.6%	25.6%	23.3%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.598[a]	3	.204
Likelihood Ratio	4.766	3	.190
Linear-by-Linear Association	.437	1	.508
N of Valid Cases	219		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 10.71.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.145	.204
	Cramer's V	.145	.204
	N of Valid Cases	219	

Not Enough Choice * Gender

Crosstab

			Gender	

			1 male	2 female	Total
Not Enough Choice	1 yes	Count	20	27	47
		% within Not Enough Choice	42.6%	57.4%	100.0%
		% within Gender	18.3%	22.9%	20.7%
		% of Total	8.8%	11.9%	20.7%
	2 no	Count	89	91	180
		% within Not Enough Choice	49.4%	50.6%	100.0%
		% within Gender	81.7%	77.1%	79.3%
		% of Total	39.2%	40.1%	79.3%
	Total	Count	109	118	227
		% within Not Enough Choice	48.0%	52.0%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	48.0%	52.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.709[a]	1	.400		
Continuity Correction[b]	.460	1	.498		
Likelihood Ratio	.712	1	.399		
Fisher's Exact Test				.417	.249
Linear-by-Linear Association	.706	1	.401		
N of Valid Cases	227				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 22.57.
b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	-.056	.400
	Cramer's V	.056	.400
	N of Valid Cases	227	

Not Enough Choice * Age (Binned)

Crosstab

			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Not Enough Choice	1 yes	Count	12	12	13	10	47
		% within Not Enough Choice	25.5%	25.5%	27.7%	21.3%	100.0%
		% within Age (Binned)	21.4%	21.4%	23.2%	19.6%	21.5%
		% of Total	5.5%	5.5%	5.9%	4.6%	21.5%
	2 no	Count	44	44	43	41	172
		% within Not Enough Choice	25.6%	25.6%	25.0%	23.8%	100.0%
		% within Age (Binned)	78.6%	78.6%	76.8%	80.4%	78.5%
		% of Total	20.1%	20.1%	19.6%	18.7%	78.5%
	Total	Count	56	56	56	51	219
		% within Not Enough Choice	25.6%	25.6%	25.6%	23.3%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	25.6%	25.6%	25.6%	23.3%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.206[a]	3	.977
Likelihood Ratio	.206	3	.977
Linear-by-Linear Association	.017	1	.895
N of Valid Cases	219		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 10.95.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.031	.977
	Cramer's V	.031	.977
	N of Valid Cases	219	

Case Processing Summary – features needing improvement						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Publicity * Gender	174	24.1%	547	75.9%	721	100.0%
Publicity * Age (Binned)	167	23.2%	554	76.8%	721	100.0%
Advice * Gender	174	24.1%	547	75.9%	721	100.0%
Advice * Age (Binned)	167	23.2%	554	76.8%	721	100.0%
Incentives * Gender	174	24.1%	547	75.9%	721	100.0%
Incentives * Age (Binned)	167	23.2%	554	76.8%	721	100.0%
Choice * Gender	174	24.1%	547	75.9%	721	100.0%
Choice * Age (Binned)	167	23.2%	554	76.8%	721	100.0%
Eligibility Criteria * Gender	174	24.1%	547	75.9%	721	100.0%
Eligibility Criteria * Age (Binned)	167	23.2%	554	76.8%	721	100.0%
Information on Progress * Gender	174	24.1%	547	75.9%	721	100.0%
Information on Progress * Age (Binned)	167	23.2%	554	76.8%	721	100.0%

Publicity * Gender

Crosstab					
			Gender		
			1 male	2 female	Total
Publicity	1 yes	Count	32	43	75
		% within Publicity	42.7%	57.3%	100.0%
		% within Gender	42.1%	43.9%	43.1%
		% of Total	18.4%	24.7%	43.1%
	2 no	Count	44	55	99
		% within Publicity	44.4%	55.6%	100.0%
		% within Gender	57.9%	56.1%	56.9%
		% of Total	25.3%	31.6%	56.9%
	Total	Count	76	98	174
		% within Publicity	43.7%	56.3%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	43.7%	56.3%	100.0%

Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.055[a]	1	.815		
Continuity Correction[b]	.006	1	.936		
Likelihood Ratio	.055	1	.815		
Fisher's Exact Test				.878	.469
Linear-by-Linear Association	.055	1	.815		
N of Valid Cases	174				
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 32.76.					
b. Computed only for a 2x2 table					

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	-.018	.815
	Cramer's V	.018	.815
	N of Valid Cases	174	

Publicity * Age (Binned)

Crosstab							
			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Publicity	1 yes	Count	17	15	21	20	73
		% within Publicity	23.3%	20.5%	28.8%	27.4%	100.0%

		% within Age (Binned)	38.6%	45.5%	42.9%	48.8%	43.7%
		% of Total	10.2%	9.0%	12.6%	12.0%	43.7%
	2 no	Count	27	18	28	21	94
		% within Publicity	28.7%	19.1%	29.8%	22.3%	100.0%
		% within Age (Binned)	61.4%	54.5%	57.1%	51.2%	56.3%
		% of Total	16.2%	10.8%	16.8%	12.6%	56.3%
	Total	Count	44	33	49	41	167
		% within Publicity	26.3%	19.8%	29.3%	24.6%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	26.3%	19.8%	29.3%	24.6%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.944[a]	3	.815
Likelihood Ratio	.946	3	.814
Linear-by-Linear Association	.680	1	.410
N of Valid Cases	167		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 14.43.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.075	.815
	Cramer's V	.075	.815
	N of Valid Cases	167	

Advice * Gender

Crosstab

			Gender		
			1 male	2 female	Total
Advice	1 yes	Count	18	22	40
		% within Advice	45.0%	55.0%	100.0%
		% within Gender	23.7%	22.4%	23.0%
		% of Total	10.3%	12.6%	23.0%
	2 no	Count	58	76	134
		% within Advice	43.3%	56.7%	100.0%
		% within Gender	76.3%	77.6%	77.0%
		% of Total	33.3%	43.7%	77.0%
	Total	Count	76	98	174
		% within Advice	43.7%	56.3%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	43.7%	56.3%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.037[a]	1	.848		
Continuity Correction[b]	.000	1	.992		
Likelihood Ratio	.037	1	.848		
Fisher's Exact Test				.858	.494
Linear-by-Linear Association	.037	1	.848		
N of Valid Cases	174				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 17.47.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.015	.848
	Cramer's V	.015	.848
	N of Valid Cases	174	

Advice * Age (Binned)

Crosstab

			Age (Binned)				
			1 over 70	2 between	3 between	4 41 or	Total

				57-69	42-56	under	
Advice	1 yes	Count	9	8	13	7	37
		% within Advice	24.3%	21.6%	35.1%	18.9%	100.0%
		% within Age (Binned)	20.5%	24.2%	26.5%	17.1%	22.2%
		% of Total	5.4%	4.8%	7.8%	4.2%	22.2%
	2 no	Count	35	25	36	34	130
		% within Advice	26.9%	19.2%	27.7%	26.2%	100.0%
		% within Age (Binned)	79.5%	75.8%	73.5%	82.9%	77.8%
		% of Total	21.0%	15.0%	21.6%	20.4%	77.8%
	Total	Count	44	33	49	41	167
		% within Advice	26.3%	19.8%	29.3%	24.6%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	26.3%	19.8%	29.3%	24.6%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.315[a]	3	.726
Likelihood Ratio	1.330	3	.722
Linear-by-Linear Association	.044	1	.833
N of Valid Cases	167		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.31.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.089	.726
	Cramer's V	.089	.726
	N of Valid Cases	167	

Incentives * Gender

Crosstab

			Gender		
			1 male	2 female	Total
Incentives	1 yes	Count	13	10	23
		% within Incentives	56.5%	43.5%	100.0%
		% within Gender	17.1%	10.2%	13.2%
		% of Total	7.5%	5.7%	13.2%
	2 no	Count	63	88	151
		% within Incentives	41.7%	58.3%	100.0%
		% within Gender	82.9%	89.8%	86.8%
		% of Total	36.2%	50.6%	86.8%
	Total	Count	76	98	174
		% within Incentives	43.7%	56.3%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	43.7%	56.3%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.777[a]	1	.182		
Continuity Correction[b]	1.226	1	.268		
Likelihood Ratio	1.762	1	.184		
Fisher's Exact Test				.259	.134
Linear-by-Linear Association	1.767	1	.184		
N of Valid Cases	174				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 10.05.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.101	.182
	Cramer's V	.101	.182
	N of Valid Cases	174	

Incentives * Age (Binned)

Crosstab

			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Incentives	1 yes	Count	4	4	4	9	21
		% within Incentives	19.0%	19.0%	19.0%	42.9%	100.0%
		% within Age (Binned)	9.1%	12.1%	8.2%	22.0%	12.6%
		% of Total	2.4%	2.4%	2.4%	5.4%	12.6%
	2 no	Count	40	29	45	32	146
		% within Incentives	27.4%	19.9%	30.8%	21.9%	100.0%
		% within Age (Binned)	90.9%	87.9%	91.8%	78.0%	87.4%
		% of Total	24.0%	17.4%	26.9%	19.2%	87.4%
	Total	Count	44	33	49	41	167
		% within Incentives	26.3%	19.8%	29.3%	24.6%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	26.3%	19.8%	29.3%	24.6%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.638[a]	3	.200
Likelihood Ratio	4.279	3	.233
Linear-by-Linear Association	2.129	1	.145
N of Valid Cases	167		

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 4.15.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.167	.200
	Cramer's V	.167	.200
	N of Valid Cases	167	

Choice * Gender

Crosstab

			Gender		
			1 male	2 female	Total
Choice	1 yes	Count	8	13	21
		% within Choice	38.1%	61.9%	100.0%
		% within Gender	10.5%	13.3%	12.1%
		% of Total	4.6%	7.5%	12.1%
	2 no	Count	68	85	153
		% within Choice	44.4%	55.6%	100.0%
		% within Gender	89.5%	86.7%	87.9%
		% of Total	39.1%	48.9%	87.9%
	Total	Count	76	98	174
		% within Choice	43.7%	56.3%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	43.7%	56.3%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.303[a]	1	.582		
Continuity Correction[b]	.100	1	.752		
Likelihood Ratio	.306	1	.580		
Fisher's Exact Test				.645	.379
Linear-by-Linear Association	.301	1	.583		
N of Valid Cases	174				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 9.17.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	-.042	.582

	Cramer's V	.042	.582
	N of Valid Cases	174	

Choice * Age (Binned)

Crosstab

			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Choice	1 yes	Count	5	4	6	6	21
		% within Choice	23.8%	19.0%	28.6%	28.6%	100.0%
		% within Age (Binned)	11.4%	12.1%	12.2%	14.6%	12.6%
		% of Total	3.0%	2.4%	3.6%	3.6%	12.6%
	2 no	Count	39	29	43	35	146
		% within Choice	26.7%	19.9%	29.5%	24.0%	100.0%
		% within Age (Binned)	88.6%	87.9%	87.8%	85.4%	87.4%
		% of Total	23.4%	17.4%	25.7%	21.0%	87.4%
	Total	Count	44	33	49	41	167
		% within Choice	26.3%	19.8%	29.3%	24.6%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	26.3%	19.8%	29.3%	24.6%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.228[a]	3	.973
Likelihood Ratio	.223	3	.974
Linear-by-Linear Association	.181	1	.670
N of Valid Cases	167		

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 4.15.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.037	.973
	Cramer's V	.037	.973
	N of Valid Cases	167	

Eligibility Criteria * Gender

Crosstab

			Gender		
			1 male	2 female	Total
Eligibility Criteria	1 yes	Count	12	6	18
		% within Eligibility Criteria	66.7%	33.3%	100.0%
		% within Gender	15.8%	6.1%	10.3%
		% of Total	6.9%	3.4%	10.3%
	2 no	Count	64	92	156
		% within Eligibility Criteria	41.0%	59.0%	100.0%
		% within Gender	84.2%	93.9%	89.7%
		% of Total	36.8%	52.9%	89.7%
	Total	Count	76	98	174
		% within Eligibility Criteria	43.7%	56.3%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	43.7%	56.3%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.313[a]	1	.038		
Continuity Correction[b]	3.334	1	.068		
Likelihood Ratio	4.303	1	.038		
Fisher's Exact Test				.046	.034
Linear-by-Linear Association	4.288	1	.038		
N of Valid Cases	174				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.86.

b. Computed only for a 2x2 table

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.157	.038
	Cramer's V	.157	.038
	N of Valid Cases	174	

Eligibility Criteria * Age (Binned)

Crosstab							
			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Eligibility Criteria	1 yes	Count	3	2	5	6	16
		% within Eligibility Criteria	18.8%	12.5%	31.3%	37.5%	100.0%
		% within Age (Binned)	6.8%	6.1%	10.2%	14.6%	9.6%
		% of Total	1.8%	1.2%	3.0%	3.6%	9.6%
	2 no	Count	41	31	44	35	151
		% within Eligibility Criteria	27.2%	20.5%	29.1%	23.2%	100.0%
		% within Age (Binned)	93.2%	93.9%	89.8%	85.4%	90.4%
		% of Total	24.6%	18.6%	26.3%	21.0%	90.4%
	Total	Count	44	33	49	41	167
		% within Eligibility Criteria	26.3%	19.8%	29.3%	24.6%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	26.3%	19.8%	29.3%	24.6%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.090[a]	3	.554
Likelihood Ratio	2.042	3	.564
Linear-by-Linear Association	1.739	1	.187
N of Valid Cases	167		
a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is 3.16.			

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.112	.554
	Cramer's V	.112	.554
	N of Valid Cases	167	

Information on Progress * Gender

Crosstab					
			Gender		
			1 male	2 female	Total
Information on Progress	1 yes	Count	7	10	17
		% within Information on Progress	41.2%	58.8%	100.0%
		% within Gender	9.2%	10.2%	9.8%
		% of Total	4.0%	5.7%	9.8%
	2 no	Count	69	88	157
		% within Information on Progress	43.9%	56.1%	100.0%
		% within Gender	90.8%	89.8%	90.2%
		% of Total	39.7%	50.6%	90.2%
	Total	Count	76	98	174
		% within Information on Progress	43.7%	56.3%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	43.7%	56.3%	100.0%

Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.048[a]	1	.827		
Continuity Correction[b]	.000	1	1.000		
Likelihood Ratio	.048	1	.826		
Fisher's Exact Test				1.000	.519
Linear-by-Linear Association	.048	1	.827		

N of Valid Cases	174					
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.43.						
b. Computed only for a 2x2 table						

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	-.017	.827
	Cramer's V	.017	.827
	N of Valid Cases	174	

*Information on Progress * Age (Binned)*

Crosstab							
			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Information on Progress	1 yes	Count	5	1	7	4	17
		% within Information on Progress	29.4%	5.9%	41.2%	23.5%	100.0%
		% within Age (Binned)	11.4%	3.0%	14.3%	9.8%	10.2%
		% of Total	3.0%	.6%	4.2%	2.4%	10.2%
	2 no	Count	39	32	42	37	150
		% within Information on Progress	26.0%	21.3%	28.0%	24.7%	100.0%
		% within Age (Binned)	88.6%	97.0%	85.7%	90.2%	89.8%
		% of Total	23.4%	19.2%	25.1%	22.2%	89.8%
	Total	Count	44	33	49	41	167
		% within Information on Progress	26.3%	19.8%	29.3%	24.6%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	26.3%	19.8%	29.3%	24.6%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.824[a]	3	.420
Likelihood Ratio	3.365	3	.339
Linear-by-Linear Association	.067	1	.795
N of Valid Cases	167		
a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is 3.36.			

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.130	.420
	Cramer's V	.130	.420
	N of Valid Cases	167	

5 Would existing participants in programmes like to take parti in future programmes? If so, in which?

Spearman's rho correlations for willingness to participate in future programmes (Questions B6 and B6a) and respondents' gender (Question D10) and age (Question D11)

Correlations				
			Gender	Age (Binned)
Spearman's rho	Will take part?	Correlation Coefficient	.018	.016
		Sig. (2-tailed)	.658	.696
		N	590	571

Chi-square test of independence for willingness to participate in future programmes (Question B 6) and gender (Question D10) and age (Question D11)

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Gender * Will take part?	590	81.8%	131	18.2%	721	100.0%
Age (Binned) * Will take	571	79.2%	150	20.8%	721	100.0%

part?						

*Gender * Will take part?*

Crosstab						
			Will take part?			
			1 yes	2 no	3 can't tell	Total
Gender	1 male	Count	121	71	90	282
		% within Gender	42.9%	25.2%	31.9%	100.0%
		% within Will take part?	48.6%	48.3%	46.4%	47.8%
		% of Total	20.5%	12.0%	15.3%	47.8%
	2 female	Count	128	76	104	308
		% within Gender	41.6%	24.7%	33.8%	100.0%
		% within Will take part?	51.4%	51.7%	53.6%	52.2%
		% of Total	21.7%	12.9%	17.6%	52.2%
	Total	Count	249	147	194	590
		% within Gender	42.2%	24.9%	32.9%	100.0%
		% within Will take part?	100.0%	100.0%	100.0%	100.0%
		% of Total	42.2%	24.9%	32.9%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.232[a]	2	.891
Likelihood Ratio	.232	2	.890
Linear-by-Linear Association	.203	1	.652
N of Valid Cases	590		
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 70.26.			

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.020	.891
	Cramer's V	.020	.891
	N of Valid Cases	590	

*Age (Binned) * Will take part?*

Crosstab						
			Will take part?			
			1 yes	2 no	3 can't tell	Total
Age (Binned)	1 over 70	Count	47	56	36	139
		% within Age (Binned)	33.8%	40.3%	25.9%	100.0%
		% within Will take part?	19.5%	39.2%	19.3%	24.3%
		% of Total	8.2%	9.8%	6.3%	24.3%
	2 between 57-69	Count	61	35	34	130
		% within Age (Binned)	46.9%	26.9%	26.2%	100.0%
		% within Will take part?	25.3%	24.5%	18.2%	22.8%
		% of Total	10.7%	6.1%	6.0%	22.8%
	3 between 42-56	Count	69	28	64	161
		% within Age (Binned)	42.9%	17.4%	39.8%	100.0%
		% within Will take part?	28.6%	19.6%	34.2%	28.2%
		% of Total	12.1%	4.9%	11.2%	28.2%
	4 41 or under	Count	64	24	53	141
		% within Age (Binned)	45.4%	17.0%	37.6%	100.0%
		% within Will take part?	26.6%	16.8%	28.3%	24.7%
		% of Total	11.2%	4.2%	9.3%	24.7%
	Total	Count	241	143	187	571
		% within Age (Binned)	42.2%	25.0%	32.7%	100.0%
		% within Will take part?	100.0%	100.0%	100.0%	100.0%
		% of Total	42.2%	25.0%	32.7%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	30.966[a]	6	.000
Likelihood Ratio	30.075	6	.000
Linear-by-Linear Association	.312	1	.576

N of Valid Cases		571		
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 32.56.				

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.233	.000
	Cramer's V	.165	.000
	N of Valid Cases	571	

Spearman's rho correlations for willingness to participate in specific future programmes (Question B6a) and respondents' gender (Question D10) and age (Question D11)

Correlations				
			Gender	Age (Binned)
Kendall's tau_b	Renewable energy	Correlation Coefficient	.020	-.050
		Sig. (2-tailed)	.586	.155
		N	712	688
	Any	Correlation Coefficient	-.006	-.077*
		Sig. (2-tailed)	.866	.028
		N	712	688
	Boiler	Correlation Coefficient	.109**	.061
		Sig. (2-tailed)	.004	.080
		N	712	688
	Don't know	Correlation Coefficient	-.041	-.108**
		Sig. (2-tailed)	.279	.002
		N	712	688
	Insulation	Correlation Coefficient	-.003	.007
		Sig. (2-tailed)	.935	.850
		N	712	688
	Double glazing	Correlation Coefficient	-.038	.022
		Sig. (2-tailed)	.311	.532
		N	712	688
*. Correlation is significant at the 0.05 level (2-tailed).				
**. Correlation is significant at the 0.01 level (2-tailed).				

The Chi-square test of independence for willingness to participate in specific future programmes (Question B6a) and gender (Question D10) and age (Question D11)

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
RE * Gender	263	36.5%	458	63.5%	721	100.0%
RE * Age (Binned)	252	35.0%	469	65.0%	721	100.0%
Any * Gender	263	36.5%	458	63.5%	721	100.0%
Any * Age (Binned)	252	35.0%	469	65.0%	721	100.0%
Boiler * Gender	263	36.5%	458	63.5%	721	100.0%
Boiler * Age (Binned)	252	35.0%	469	65.0%	721	100.0%
Don't Know * Gender	263	36.5%	458	63.5%	721	100.0%
Don't Know * Age (Binned)	252	35.0%	469	65.0%	721	100.0%
Insulation * Gender	263	36.5%	458	63.5%	721	100.0%
Insulation * Age (Binned)	252	35.0%	469	65.0%	721	100.0%
Glazing * Gender	263	36.5%	458	63.5%	721	100.0%
Glazing * Age (Binned)	252	35.0%	469	65.0%	721	100.0%

RE * Gender

Crosstab					
			Gender		
			1 male	2 female	Total
RE	1 yes	Count	35	34	69
		% within RE	50.7%	49.3%	100.0%
		% within Gender	25.9%	26.6%	26.2%
		% of Total	13.3%	12.9%	26.2%
	2 no	Count	100	94	194
		% within RE	51.5%	48.5%	100.0%
		% within Gender	74.1%	73.4%	73.8%

		% of Total	38.0%	35.7%	73.8%
	Total	Count	135	128	263
		% within RE	51.3%	48.7%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	51.3%	48.7%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.014[a]	1	.907		
Continuity Correction[b]	.000	1	1.000		
Likelihood Ratio	.014	1	.907		
Fisher's Exact Test				1.000	.509
Linear-by-Linear Association	.014	1	.907		
N of Valid Cases	263				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 33.58.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	-.007	.907
	Cramer's V	.007	.907
	N of Valid Cases	263	

RE * Age (Binned)

Crosstab

			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
RE	1 yes	Count	10	19	23	15	67
		% within RE	14.9%	28.4%	34.3%	22.4%	100.0%
		% within Age (Binned)	18.2%	30.6%	31.1%	24.6%	26.6%
		% of Total	4.0%	7.5%	9.1%	6.0%	26.6%
	2 no	Count	45	43	51	46	185
		% within RE	24.3%	23.2%	27.6%	24.9%	100.0%
		% within Age (Binned)	81.8%	69.4%	68.9%	75.4%	73.4%
		% of Total	17.9%	17.1%	20.2%	18.3%	73.4%
	Total	Count	55	62	74	61	252
		% within RE	21.8%	24.6%	29.4%	24.2%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	21.8%	24.6%	29.4%	24.2%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.404[a]	3	.333
Likelihood Ratio	3.531	3	.317
Linear-by-Linear Association	.527	1	.468
N of Valid Cases	252		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 14.62.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.116	.333
	Cramer's V	.116	.333
	N of Valid Cases	252	

Any * Gender

Crosstab

			Gender		
			1 male	2 female	Total
Any	1 yes	Count	27	31	58
		% within Any	46.6%	53.4%	100.0%
		% within Gender	20.0%	24.2%	22.1%
		% of Total	10.3%	11.8%	22.1%

	2 no	Count	108	97	205
		% within Any	52.7%	47.3%	100.0%
		% within Gender	80.0%	75.8%	77.9%
		% of Total	41.1%	36.9%	77.9%
	Total	Count	135	128	263
		% within Any	51.3%	48.7%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	51.3%	48.7%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.680[a]	1	.409		
Continuity Correction[b]	.457	1	.499		
Likelihood Ratio	.680	1	.409		
Fisher's Exact Test				.458	.249
Linear-by-Linear Association	.678	1	.410		
N of Valid Cases	263				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 28.23.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	-.051	.409
	Cramer's V	.051	.409
	N of Valid Cases	263	

Any * Age (Binned)

Crosstab

			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Any	1 yes	Count	8	12	18	16	54
		% within Any	14.8%	22.2%	33.3%	29.6%	100.0%
		% within Age (Binned)	14.5%	19.4%	24.3%	26.2%	21.4%
		% of Total	3.2%	4.8%	7.1%	6.3%	21.4%
	2 no	Count	47	50	56	45	198
		% within Any	23.7%	25.3%	28.3%	22.7%	100.0%
		% within Age (Binned)	85.5%	80.6%	75.7%	73.8%	78.6%
		% of Total	18.7%	19.8%	22.2%	17.9%	78.6%
	Total	Count	55	62	74	61	252
		% within Any	21.8%	24.6%	29.4%	24.2%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	21.8%	24.6%	29.4%	24.2%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.910[a]	3	.406
Likelihood Ratio	3.009	3	.390
Linear-by-Linear Association	2.794	1	.095
N of Valid Cases	252		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 11.79.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.107	.406
	Cramer's V	.107	.406
	N of Valid Cases	252	

Boiler * Gender

Crosstab

			Gender		
			1 male	2 female	Total
Boiler	1 yes	Count	36	18	54

		% within Boiler	66.7%	33.3%	100.0%
		% within Gender	26.7%	14.1%	20.5%
		% of Total	13.7%	6.8%	20.5%
	2 no	Count	99	110	209
		% within Boiler	47.4%	52.6%	100.0%
		% within Gender	73.3%	85.9%	79.5%
		% of Total	37.6%	41.8%	79.5%
	Total	Count	135	128	263
		% within Boiler	51.3%	48.7%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	51.3%	48.7%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	6.397[a]	1	.011		
Continuity Correction[b]	5.648	1	.017		
Likelihood Ratio	6.509	1	.011		
Fisher's Exact Test				.014	.008
Linear-by-Linear Association	6.373	1	.012		
N of Valid Cases	263				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 26.28.
b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.156	.011
	Cramer's V	.156	.011
	N of Valid Cases	263	

Boiler * Age (Binned)

Crosstab

			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Boiler	1 yes	Count	14	21	13	6	54
		% within Boiler	25.9%	38.9%	24.1%	11.1%	100.0%
		% within Age (Binned)	25.5%	33.9%	17.6%	9.8%	21.4%
		% of Total	5.6%	8.3%	5.2%	2.4%	21.4%
	2 no	Count	41	41	61	55	198
		% within Boiler	20.7%	20.7%	30.8%	27.8%	100.0%
		% within Age (Binned)	74.5%	66.1%	82.4%	90.2%	78.6%
		% of Total	16.3%	16.3%	24.2%	21.8%	78.6%
	Total	Count	55	62	74	61	252
		% within Boiler	21.8%	24.6%	29.4%	24.2%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	21.8%	24.6%	29.4%	24.2%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.754[a]	3	.008
Likelihood Ratio	12.081	3	.007
Linear-by-Linear Association	7.426	1	.006
N of Valid Cases	252		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 11.79.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.216	.008
	Cramer's V	.216	.008
	N of Valid Cases	252	

Don't know * Gender

Crosstab

			Gender		
			1 male	2 female	Total
Don't know	1 yes	Count	21	31	52
		% within Don't know	40.4%	59.6%	100.0%
		% within Gender	15.6%	24.2%	19.8%
		% of Total	8.0%	11.8%	19.8%
	2 no	Count	114	97	211
		% within Don't know	54.0%	46.0%	100.0%
		% within Gender	84.4%	75.8%	80.2%
		% of Total	43.3%	36.9%	80.2%
	Total	Count	135	128	263
		% within Don't know	51.3%	48.7%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	51.3%	48.7%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	3.109[a]	1	.078		
Continuity Correction[b]	2.586	1	.108		
Likelihood Ratio	3.120	1	.077		
Fisher's Exact Test				.089	.054
Linear-by-Linear Association	3.097	1	.078		
N of Valid Cases	263				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 25.31.
b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	-.109	.078
	Cramer's V	.109	.078
	N of Valid Cases	263	

Don't know * Age (Binned)

Crosstab

			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Don't know	1 yes	Count	8	7	13	20	48
		% within Don't know	16.7%	14.6%	27.1%	41.7%	100.0%
		% within Age (Binned)	14.5%	11.3%	17.6%	32.8%	19.0%
		% of Total	3.2%	2.8%	5.2%	7.9%	19.0%
	2 no	Count	47	55	61	41	204
		% within Don't know	23.0%	27.0%	29.9%	20.1%	100.0%
		% within Age (Binned)	85.5%	88.7%	82.4%	67.2%	81.0%
		% of Total	18.7%	21.8%	24.2%	16.3%	81.0%
	Total	Count	55	62	74	61	252
		% within Don't know	21.8%	24.6%	29.4%	24.2%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	21.8%	24.6%	29.4%	24.2%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.715[a]	3	.013
Likelihood Ratio	10.096	3	.018
Linear-by-Linear Association	7.230	1	.007
N of Valid Cases	252		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 10.48.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.206	.013
	Cramer's V	.206	.013
	N of Valid Cases	252	

Insulation * Gender

Crosstab

			Gender		
			1 male	2 female	Total
Insulation	1 yes	Count	24	27	51
		% within Insulation	47.1%	52.9%	100.0%
		% within Gender	17.8%	21.1%	19.4%
		% of Total	9.1%	10.3%	19.4%
	2 no	Count	111	101	212
		% within Insulation	52.4%	47.6%	100.0%
		% within Gender	82.2%	78.9%	80.6%
		% of Total	42.2%	38.4%	80.6%
	Total	Count	135	128	263
		% within Insulation	51.3%	48.7%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	51.3%	48.7%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.462[a]	1	.497		
Continuity Correction[b]	.274	1	.600		
Likelihood Ratio	.462	1	.497		
Fisher's Exact Test				.535	.300
Linear-by-Linear Association	.460	1	.497		
N of Valid Cases	263				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 24.82.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	-.042	.497
	Cramer's V	.042	.497
	N of Valid Cases	263	

Insulation * Age (Binned)

Crosstab

			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Insulation	1 yes	Count	12	12	17	8	49
		% within Insulation	24.5%	24.5%	34.7%	16.3%	100.0%
		% within Age (Binned)	21.8%	19.4%	23.0%	13.1%	19.4%
		% of Total	4.8%	4.8%	6.7%	3.2%	19.4%
	2 no	Count	43	50	57	53	203
		% within Insulation	21.2%	24.6%	28.1%	26.1%	100.0%
		% within Age (Binned)	78.2%	80.6%	77.0%	86.9%	80.6%
		% of Total	17.1%	19.8%	22.6%	21.0%	80.6%
	Total	Count	55	62	74	61	252
		% within Insulation	21.8%	24.6%	29.4%	24.2%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	21.8%	24.6%	29.4%	24.2%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.347[a]	3	.504
Likelihood Ratio	2.473	3	.480
Linear-by-Linear Association	.890	1	.345
N of Valid Cases	252		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 10.69.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.096	.504
	Cramer's V	.096	.504
	N of Valid Cases	252	

Glazing * Gender

Crosstab

			Gender		
			1 male	2 female	Total
Glazing	1 yes	Count	12	19	31
		% within Glazing	38.7%	61.3%	100.0%
		% within Gender	8.9%	14.8%	11.8%
		% of Total	4.6%	7.2%	11.8%
	2 no	Count	123	109	232
		% within Glazing	53.0%	47.0%	100.0%
		% within Gender	91.1%	85.2%	88.2%
		% of Total	46.8%	41.4%	88.2%
	Total	Count	135	128	263
		% within Glazing	51.3%	48.7%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	51.3%	48.7%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	2.241[a]	1	.134		
Continuity Correction[b]	1.705	1	.192		
Likelihood Ratio	2.253	1	.133		
Fisher's Exact Test				.180	.096
Linear-by-Linear Association	2.232	1	.135		
N of Valid Cases	263				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 15.09.
b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	-.092	.134
	Cramer's V	.092	.134
	N of Valid Cases	263	

Glazing * Age (Binned)

Crosstab

			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Glazing	1 yes	Count	11	5	7	8	49
		% within Glazing	36.7%	16.7%	23.3%	16.3%	100.0%
		% within Age (Binned)	20.0%	8.1%	9.5%	13.1%	19.4%
		% of Total	4.4%	2.0%	2.8%	3.2%	19.4%
	2 no	Count	44	57	67	53	203
		% within Glazing	19.8%	25.7%	30.2%	26.1%	100.0%
		% within Age (Binned)	80.0%	91.9%	90.5%	86.9%	80.6%
		% of Total	17.5%	22.6%	26.6%	21.0%	80.6%
	Total	Count	55	62	74	61	252
		% within Glazing	21.8%	24.6%	29.4%	24.2%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	21.8%	24.6%	29.4%	24.2%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.741[a]	3	.192
Likelihood Ratio	4.361	3	.225
Linear-by-Linear Association	1.487	1	.223
N of Valid Cases	252		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.55.

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.137	.192
	Cramer's V	.137	.192
	N of Valid Cases	252	

6 What would the potential barriers and motiavtors be to participation in future programmes?

Kendall's tau_b nonparametric correlations for barriers to future participation (Question C2) and respondents' gender (Question D10) and age (Question D11)

Correlations				
			Gender	Age (Binned)
Kendall's tau_b	Expensive	Correlation Coefficient	.028	-.150**
		Sig. (2-tailed)	.455	.000
		N	712	688
	Hassle	Correlation Coefficient	-.053	-.025
		Sig. (2-tailed)	.157	.477
		N	712	688
	Unclear information	Correlation Coefficient	-.022	.033
		Sig. (2-tailed)	.551	.339
		N	712	688
	Inconvenience	Correlation Coefficient	-.047	-.028
		Sig. (2-tailed)	.208	.430
		N	710	686
	Unreliable	Correlation Coefficient	.039	.003
		Sig. (2-tailed)	.294	.938
		N	712	688
**. Correlation is significant at the 0.01 level (2-tailed).				

The Chi-square test of independence for barriers to future participation (Question C2) and respondents' gender (Question D10) and age (Question D11)

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Expensive * Gender	626	86.8%	95	13.2%	721	100.0%
Expensive * Age (Binned)	606	84.0%	115	16.0%	721	100.0%
Hassle * Gender	626	86.8%	95	13.2%	721	100.0%
Hassle * Age (Binned)	606	84.0%	115	16.0%	721	100.0%
Unclear info * Gender	626	86.8%	95	13.2%	721	100.0%
Unclear info * Age (Binned)	606	84.0%	115	16.0%	721	100.0%
Inconvenience * Gender	626	86.8%	95	13.2%	721	100.0%
Inconvenience * Age (Binned)	606	84.0%	115	16.0%	721	100.0%
Unreliable * Gender	626	86.8%	95	13.2%	721	100.0%
Unreliable * Age (Binned)	606	84.0%	115	16.0%	721	100.0%

Expensive * Gender

Crosstab					
			Gender		
			1 male	2 female	Total
Expensive	1 yes	Count	160	165	325
		% within Expensive	49.2%	50.8%	100.0%
		% within Gender	54.4%	49.7%	51.9%
		% of Total	25.6%	26.4%	51.9%
	2 no	Count	134	167	301
		% within Expensive	44.5%	55.5%	100.0%
		% within Gender	45.6%	50.3%	48.1%
		% of Total	21.4%	26.7%	48.1%
	Total	Count	294	332	626

		% within Expensive	47.0%	53.0%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	47.0%	53.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.393[a]	1	.238		
Continuity Correction[b]	1.211	1	.271		
Likelihood Ratio	1.394	1	.238		
Fisher's Exact Test				.262	.136
Linear-by-Linear Association	1.391	1	.238		
N of Valid Cases	626				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 141.36.
b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.047	.238
	Cramer's V	.047	.238
	N of Valid Cases	626	

Expensive * Age (Binned)

Crosstab

			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Expensive	1 yes	Count	60	83	77	95	315
		% within Expensive	19.0%	26.3%	24.4%	30.2%	100.0%
		% within Age (Binned)	38.0%	59.7%	47.0%	65.5%	52.0%
		% of Total	9.9%	13.7%	12.7%	15.7%	52.0%
	2 no	Count	98	56	87	50	291
		% within Expensive	33.7%	19.2%	29.9%	17.2%	100.0%
		% within Age (Binned)	62.0%	40.3%	53.0%	34.5%	48.0%
		% of Total	16.2%	9.2%	14.4%	8.3%	48.0%
	Total	Count	158	139	164	145	606
		% within Expensive	26.1%	22.9%	27.1%	23.9%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	26.1%	22.9%	27.1%	23.9%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	28.053[a]	3	.000
Likelihood Ratio	28.366	3	.000
Linear-by-Linear Association	14.911	1	.000
N of Valid Cases	606		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 66.75.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.215	.000
	Cramer's V	.215	.000
	N of Valid Cases	606	

Hassle * Gender

Crosstab

			Gender		
			1 male	2 female	Total
Hassle	1 yes	Count	88	114	202
		% within Hassle	43.6%	56.4%	100.0%
		% within Gender	29.9%	34.3%	32.3%
		% of Total	14.1%	18.2%	32.3%
	2 no	Count	206	218	424
		% within Hassle	48.6%	51.4%	100.0%

		% within Gender	70.1%	65.7%	67.7%
		% of Total	32.9%	34.8%	67.7%
	Total	Count	294	332	626
		% within Hassle	47.0%	53.0%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	47.0%	53.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.385[a]	1	.239		
Continuity Correction[b]	1.190	1	.275		
Likelihood Ratio	1.387	1	.239		
Fisher's Exact Test				.266	.138
Linear-by-Linear Association	1.382	1	.240		
N of Valid Cases	626				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 94.87.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	-.047	.239
	Cramer's V	.047	.239
	N of Valid Cases	626	

Hassle * Age (Binned)

Crosstab

			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Hassle	1 yes	Count	46	45	60	44	195
		% within Hassle	23.6%	23.1%	30.8%	22.6%	100.0%
		% within Age (Binned)	29.1%	32.4%	36.6%	30.3%	32.2%
		% of Total	7.6%	7.4%	9.9%	7.3%	32.2%
	2 no	Count	112	94	104	101	411
		% within Hassle	27.3%	22.9%	25.3%	24.6%	100.0%
		% within Age (Binned)	70.9%	67.6%	63.4%	69.7%	67.8%
		% of Total	18.5%	15.5%	17.2%	16.7%	67.8%
	Total	Count	158	139	164	145	606
		% within Hassle	26.1%	22.9%	27.1%	23.9%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	26.1%	22.9%	27.1%	23.9%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.365[a]	3	.500
Likelihood Ratio	2.348	3	.503
Linear-by-Linear Association	.275	1	.600
N of Valid Cases	606		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 44.73.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.062	.500
	Cramer's V	.062	.500
	N of Valid Cases	606	

Unclear Information * Gender

Crosstab

			Gender		
			1 male	2 female	Total
Unclear info	1 yes	Count	43	53	96
		% within Unclear info	44.8%	55.2%	100.0%
		% within Gender	14.6%	16.0%	15.3%

		% of Total	6.9%	8.5%	15.3%
	2 no	Count	251	279	530
		% within Unclear info	47.4%	52.6%	100.0%
		% within Gender	85.4%	84.0%	84.7%
		% of Total	40.1%	44.6%	84.7%
	Total	Count	294	332	626
		% within Unclear info	47.0%	53.0%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	47.0%	53.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.215[a]	1	.643		
Continuity Correction[b]	.124	1	.724		
Likelihood Ratio	.215	1	.643		
Fisher's Exact Test				.658	.363
Linear-by-Linear Association	.215	1	.643		
N of Valid Cases	626				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 45.09.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	-.019	.643
	Cramer's V	.019	.643
	N of Valid Cases	626	

Unclear Information * Age (Binned)

Crosstab

			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Unclear info	1 yes	Count	30	18	26	20	94
		% within Unclear info	31.9%	19.1%	27.7%	21.3%	100.0%
		% within Age (Binned)	19.0%	12.9%	15.9%	13.8%	15.5%
		% of Total	5.0%	3.0%	4.3%	3.3%	15.5%
	2 no	Count	128	121	138	125	512
		% within Unclear info	25.0%	23.6%	27.0%	24.4%	100.0%
		% within Age (Binned)	81.0%	87.1%	84.1%	86.2%	84.5%
		% of Total	21.1%	20.0%	22.8%	20.6%	84.5%
	Total	Count	158	139	164	145	606
		% within Unclear info	26.1%	22.9%	27.1%	23.9%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	26.1%	22.9%	27.1%	23.9%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.494[a]	3	.476
Likelihood Ratio	2.459	3	.483
Linear-by-Linear Association	.989	1	.320
N of Valid Cases	606		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 21.56.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.064	.476
	Cramer's V	.064	.476
	N of Valid Cases	606	

Inconvenience * Gender

Crosstab

			Gender	

			1 male	2 female	Total
Inconvenience	1 yes	Count	31	45	76
		% within Inconvenience	40.8%	59.2%	100.0%
		% within Gender	10.5%	13.6%	12.1%
		% of Total	5.0%	7.2%	12.1%
	2 no	Count	263	287	550
		% within Inconvenience	47.8%	52.2%	100.0%
		% within Gender	89.5%	86.4%	87.9%
		% of Total	42.0%	45.8%	87.9%
	Total	Count	294	332	626
		% within Inconvenience	47.0%	53.0%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	47.0%	53.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.324[a]	1	.250		
Continuity Correction[b]	1.057	1	.304		
Likelihood Ratio	1.333	1	.248		
Fisher's Exact Test				.271	.152
Linear-by-Linear Association	1.322	1	.250		
N of Valid Cases	626				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 35.69.
b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	-.046	.250
	Cramer's V	.046	.250
	N of Valid Cases	626	

Inconvenience * Age (Binned)

Crosstab

			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Inconvenience	1 yes	Count	17	17	22	18	74
		% within Inconvenience	23.0%	23.0%	29.7%	24.3%	100.0%
		% within Age (Binned)	10.8%	12.2%	13.4%	12.4%	12.2%
		% of Total	2.8%	2.8%	3.6%	3.0%	12.2%
	2 no	Count	141	122	142	127	532
		% within Inconvenience	26.5%	22.9%	26.7%	23.9%	100.0%
		% within Age (Binned)	89.2%	87.8%	86.6%	87.6%	87.8%
		% of Total	23.3%	20.1%	23.4%	21.0%	87.8%
	Total	Count	158	139	164	145	606
		% within Inconvenience	26.1%	22.9%	27.1%	23.9%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	26.1%	22.9%	27.1%	23.9%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.538[a]	3	.911
Likelihood Ratio	.543	3	.909
Linear-by-Linear Association	.290	1	.590
N of Valid Cases	606		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 16.97.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.030	.911
	Cramer's V	.030	.911
	N of Valid Cases	606	

Unreliable * Gender

Crosstab					
			Gender		
			1 male	2 female	Total
Unreliable	1 yes	Count	38	33	71
		% within Unreliable	53.5%	46.5%	100.0%
		% within Gender	12.9%	9.9%	11.3%
		% of Total	6.1%	5.3%	11.3%
	2 no	Count	256	299	555
		% within Unreliable	46.1%	53.9%	100.0%
		% within Gender	87.1%	90.1%	88.7%
		% of Total	40.9%	47.8%	88.7%
	Total	Count	294	332	626
		% within Unreliable	47.0%	53.0%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	47.0%	53.0%	100.0%

Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.382[a]	1	.240		
Continuity Correction[b]	1.101	1	.294		
Likelihood Ratio	1.379	1	.240		
Fisher's Exact Test				.257	.147
Linear-by-Linear Association	1.380	1	.240		
N of Valid Cases	626				
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 33.35.					
b. Computed only for a 2x2 table					

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.047	.240
	Cramer's V	.047	.240
	N of Valid Cases	626	

Unreliable * Age (Binned)

Crosstab							
			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Unreliable	1 yes	Count	19	14	19	15	67
		% within Unreliable	28.4%	20.9%	28.4%	22.4%	100.0%
		% within Age (Binned)	12.0%	10.1%	11.6%	10.3%	11.1%
		% of Total	3.1%	2.3%	3.1%	2.5%	11.1%
	2 no	Count	139	125	145	130	539
		% within Unreliable	25.8%	23.2%	26.9%	24.1%	100.0%
		% within Age (Binned)	88.0%	89.9%	88.4%	89.7%	88.9%
		% of Total	22.9%	20.6%	23.9%	21.5%	88.9%
	Total	Count	158	139	164	145	606
		% within Unreliable	26.1%	22.9%	27.1%	23.9%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	26.1%	22.9%	27.1%	23.9%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.409[a]	3	.938
Likelihood Ratio	.410	3	.938
Linear-by-Linear Association	.100	1	.752
N of Valid Cases	606		
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 15.37.			

Symmetric Measures			
		Value	Approx. Sig.

Nominal by Nominal	Phi	.026	.938
	Cramer's V	.026	.938
	N of Valid Cases	606	

Kendall's tau_b nonparametric correlations for motivators to future participation (Question C1) and respondents' gender (Question D10) and age (Question D11)

Correlations

			Gender	Age (Binned)
Kendall's tau_b	Finances	Correlation Coefficient	.069	-.114**
		Sig. (2-tailed)	.065	.001
		N	712	688
	Advertising	Correlation Coefficient	-.059	-.047
		Sig. (2-tailed)	.117	.176
		N	712	688
	Advice	Correlation Coefficient	-.039	-.028
		Sig. (2-tailed)	.292	.422
		N	712	688
	No hassle	Correlation Coefficient	-.064	-.062
		Sig. (2-tailed)	.089	.077
		N	712	688
	Save fuel	Correlation Coefficient	-.032	-.029
		Sig. (2-tailed)	.389	.398
		N	712	688

**. Correlation is significant at the 0.01 level (2-tailed).

The Chi-square test of independence for motivators to future participation (Question C1) and respondents' gender (Question D10) and age (Question D11)

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Finances * Gender	635	88.1%	86	11.9%	721	100.0%
Finances * Age (Binned)	616	85.4%	105	14.6%	721	100.0%
Advertising * Gender	635	88.1%	86	11.9%	721	100.0%
Advertising * Age (Binned)	616	85.4%	105	14.6%	721	100.0%
Advice * Gender	635	88.1%	86	11.9%	721	100.0%
Advice * Age (Binned)	616	85.4%	105	14.6%	721	100.0%
No hassle * Gender	635	88.1%	86	11.9%	721	100.0%
No hassle * Age (Binned)	616	85.4%	105	14.6%	721	100.0%
Save fuel * Gender	635	88.1%	86	11.9%	721	100.0%
Save fuel * Age (Binned)	616	85.4%	105	14.6%	721	100.0%

Finances * Gender

Crosstab

			Gender		
			1 male	2 female	Total
Finances	1 yes	Count	205	200	405
		% within Finances	50.6%	49.4%	100.0%
		% within Gender	67.2%	60.6%	63.8%
		% of Total	32.3%	31.5%	63.8%
	2 no	Count	100	130	230
		% within Finances	43.5%	56.5%	100.0%
		% within Gender	32.8%	39.4%	36.2%
		% of Total	15.7%	20.5%	36.2%
	Total	Count	305	330	635
		% within Finances	48.0%	52.0%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	48.0%	52.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	2.995[a]	1	.084		
Continuity Correction[b]	2.716	1	.099		

Likelihood Ratio	3.001	1	.083		
Fisher's Exact Test				.098	.050
Linear-by-Linear Association	2.990	1	.084		
N of Valid Cases	635				
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 110.47.					
b. Computed only for a 2x2 table					

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.069	.084
	Cramer's V	.069	.084
	N of Valid Cases	635	

Finances * Age (Binned)

Crosstab							
			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Finances	1 yes	Count	91	87	110	104	392
		% within Finances	23.2%	22.2%	28.1%	26.5%	100.0%
		% within Age (Binned)	56.5%	65.4%	63.2%	70.3%	63.6%
		% of Total	14.8%	14.1%	17.9%	16.9%	63.6%
	2 no	Count	70	46	64	44	224
		% within Finances	31.3%	20.5%	28.6%	19.6%	100.0%
		% within Age (Binned)	43.5%	34.6%	36.8%	29.7%	36.4%
		% of Total	11.4%	7.5%	10.4%	7.1%	36.4%
	Total	Count	161	133	174	148	616
		% within Finances	26.1%	21.6%	28.2%	24.0%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	26.1%	21.6%	28.2%	24.0%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.531[a]	3	.088
Likelihood Ratio	6.536	3	.088
Linear-by-Linear Association	5.152	1	.023
N of Valid Cases	616		
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 48.36.			

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.103	.088
	Cramer's V	.103	.088
	N of Valid Cases	616	

Advertising * Gender

Crosstab					
			Gender		
			1 male	2 female	Total
Advertising	1 yes	Count	67	92	159
		% within Advertising	42.1%	57.9%	100.0%
		% within Gender	22.0%	27.9%	25.0%
		% of Total	10.6%	14.5%	25.0%
	2 no	Count	238	238	476
		% within Advertising	50.0%	50.0%	100.0%
		% within Gender	78.0%	72.1%	75.0%
		% of Total	37.5%	37.5%	75.0%
	Total	Count	305	330	635
		% within Advertising	48.0%	52.0%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	48.0%	52.0%	100.0%

Chi-Square Tests					
	Value	df	Asymp. Sig.	Exact Sig.	Exact Sig.

			(2-sided)	(2-sided)	(1-sided)
Pearson Chi-Square	2.951[a]	1	.086		
Continuity Correction[b]	2.645	1	.104		
Likelihood Ratio	2.963	1	.085		
Fisher's Exact Test				.099	.052
Linear-by-Linear Association	2.946	1	.086		
N of Valid Cases	635				
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 76.37.					
b. Computed only for a 2x2 table					

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	-.068	.086
	Cramer's V	.068	.086
	N of Valid Cases	635	

Advertising * Age (Binned)

Crosstab

			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Advertising	1 yes	Count	35	40	42	41	158
		% within Advertising	22.2%	25.3%	26.6%	25.9%	100.0%
		% within Age (Binned)	21.7%	30.1%	24.1%	27.7%	25.6%
		% of Total	5.7%	6.5%	6.8%	6.7%	25.6%
	2 no	Count	126	93	132	107	458
		% within Advertising	27.5%	20.3%	28.8%	23.4%	100.0%
		% within Age (Binned)	78.3%	69.9%	75.9%	72.3%	74.4%
		% of Total	20.5%	15.1%	21.4%	17.4%	74.4%
	Total	Count	161	133	174	148	616
		% within Advertising	26.1%	21.6%	28.2%	24.0%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	26.1%	21.6%	28.2%	24.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.193[a]	3	.363
Likelihood Ratio	3.190	3	.363
Linear-by-Linear Association	.644	1	.422
N of Valid Cases	616		
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 34.11.			

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.072	.363
	Cramer's V	.072	.363
	N of Valid Cases	616	

Advice * Gender

Crosstab

			Gender		
			1 male	2 female	Total
Advice	1 yes	Count	62	80	142
		% within Advice	43.7%	56.3%	100.0%
		% within Gender	20.3%	24.2%	22.4%
		% of Total	9.8%	12.6%	22.4%
	2 no	Count	243	250	493
		% within Advice	49.3%	50.7%	100.0%
		% within Gender	79.7%	75.8%	77.6%
		% of Total	38.3%	39.4%	77.6%
	Total	Count	305	330	635
		% within Advice	48.0%	52.0%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	48.0%	52.0%	100.0%

Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.399[a]	1	.237		
Continuity Correction[b]	1.183	1	.277		
Likelihood Ratio	1.403	1	.236		
Fisher's Exact Test				.253	.138
Linear-by-Linear Association	1.397	1	.237		
N of Valid Cases	635				
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 68.20.					
b. Computed only for a 2x2 table					

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	-.047	.237
	Cramer's V	.047	.237
	N of Valid Cases	635	

Advice * Age (Binned)

Crosstab							
			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Advice	1 yes	Count	37	26	45	33	141
		% within Advice	26.2%	18.4%	31.9%	23.4%	100.0%
		% within Age (Binned)	23.0%	19.5%	25.9%	22.3%	22.9%
		% of Total	6.0%	4.2%	7.3%	5.4%	22.9%
	2 no	Count	124	107	129	115	475
		% within Advice	26.1%	22.5%	27.2%	24.2%	100.0%
		% within Age (Binned)	77.0%	80.5%	74.1%	77.7%	77.1%
		% of Total	20.1%	17.4%	20.9%	18.7%	77.1%
	Total	Count	161	133	174	148	616
		% within Advice	26.1%	21.6%	28.2%	24.0%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	26.1%	21.6%	28.2%	24.0%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.742[a]	3	.628
Likelihood Ratio	1.749	3	.626
Linear-by-Linear Association	.078	1	.779
N of Valid Cases	616		
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 30.44.			

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.053	.628
	Cramer's V	.053	.628
	N of Valid Cases	616	

No hassle * Gender

Crosstab					
			Gender		
			1 male	2 female	Total
No hassle	1 yes	Count	50	73	123
		% within No hassle	40.7%	59.3%	100.0%
		% within Gender	16.4%	22.1%	19.4%
		% of Total	7.9%	11.5%	19.4%
	2 no	Count	255	257	512
		% within No hassle	49.8%	50.2%	100.0%
		% within Gender	83.6%	77.9%	80.6%
		% of Total	40.2%	40.5%	80.6%
	Total	Count	305	330	635

		% within No hassle	48.0%	52.0%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	48.0%	52.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	3.330[a]	1	.068		
Continuity Correction[b]	2.973	1	.085		
Likelihood Ratio	3.350	1	.067		
Fisher's Exact Test				.071	.042
Linear-by-Linear Association	3.324	1	.068		
N of Valid Cases	635				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 59.08.
b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	-.072	.068
	Cramer's V	.072	.068
	N of Valid Cases	635	

No hassle * Age (Binned)

Crosstab

			Age (Binned) 1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
No Hassle	1 yes	Count	25	23	43	28	119
		% within No hassle	21.0%	19.3%	36.1%	23.5%	100.0%
		% within Age (Binned)	15.5%	17.3%	24.7%	18.9%	19.3%
		% of Total	4.1%	3.7%	7.0%	4.5%	19.3%
	2 no	Count	136	110	131	120	497
		% within No hassle	27.4%	22.1%	26.4%	24.1%	100.0%
		% within Age (Binned)	84.5%	82.7%	75.3%	81.1%	80.7%
		% of Total	22.1%	17.9%	21.3%	19.5%	80.7%
	Total	Count	161	133	174	148	616
		% within No hassle	26.1%	21.6%	28.2%	24.0%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	26.1%	21.6%	28.2%	24.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.098[a]	3	.165
Likelihood Ratio	4.990	3	.173
Linear-by-Linear Association	1.698	1	.193
N of Valid Cases	616		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 25.69.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.091	.165
	Cramer's V	.091	.165
	N of Valid Cases	616	

Save fuel * Gender

Crosstab

			Gender 1 male	2 female	Total
Save fuel	1 yes	Count	29	39	68
		% within Save fuel	42.6%	57.4%	100.0%
		% within Gender	9.5%	11.8%	10.7%
		% of Total	4.6%	6.1%	10.7%
	2 no	Count	276	291	567
		% within Save fuel	48.7%	51.3%	100.0%

		% within Gender	90.5%	88.2%	89.3%
		% of Total	43.5%	45.8%	89.3%
	Total	Count	305	330	635
		% within Save fuel	48.0%	52.0%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	48.0%	52.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.885[a]	1	.347		
Continuity Correction[b]	.659	1	.417		
Likelihood Ratio	.888	1	.346		
Fisher's Exact Test				.371	.209
Linear-by-Linear Association	.883	1	.347		
N of Valid Cases	635				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 32.66.
b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	-.037	.347
	Cramer's V	.037	.347
	N of Valid Cases	635	

Save fuel * Age (Binned)

Crosstab

			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Save fuel	1 yes	Count	15	17	14	19	65
		% within Save fuel	23.1%	26.2%	21.5%	29.2%	100.0%
		% within Age (Binned)	9.3%	12.8%	8.0%	12.8%	10.6%
		% of Total	2.4%	2.8%	2.3%	3.1%	10.6%
	2 no	Count	146	116	160	129	551
		% within Save fuel	26.5%	21.1%	29.0%	23.4%	100.0%
		% within Age (Binned)	90.7%	87.2%	92.0%	87.2%	89.4%
		% of Total	23.7%	18.8%	26.0%	20.9%	89.4%
	Total	Count	161	133	174	148	616
		% within Save fuel	26.1%	21.6%	28.2%	24.0%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	26.1%	21.6%	28.2%	24.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.938[a]	3	.401
Likelihood Ratio	2.953	3	.399
Linear-by-Linear Association	.265	1	.607
N of Valid Cases	616		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 14.03.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.069	.401
	Cramer's V	.069	.401
	N of Valid Cases	616	

Kendall's tau_b nonparametric correlations for additional motivators to future participation (Question C7) and respondents' gender (Question D10) and age (Question D11)

Correlations

			Gender	Age (Binned)
Kendall's tau_b	Proven result	Correlation Coefficient	-.016	.041
		Sig. (2-tailed)	.663	.242
		N	712	688

	Description of process	Correlation Coefficient	.031	-.072
		Sig. (2-tailed)	.413	.039
		N	712	688
	Tailor-made	Correlation Coefficient	-.078*	-.051
		Sig. (2-tailed)	.037	.140
		N	712	688
	Short payback	Correlation Coefficient	.087*	.052
		Sig. (2-tailed)	.020	.132
		N	712	688
*. Correlation is significant at the 0.05 level (2-tailed).				

The Chi-square test of independence for additional motivators to future participation (Question C7) and respondents' gender (Question D10) and age (Question D11)

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Proven result * Gender	620	86.0%	101	14.0%	721	100.0%
Proven result * Age (Binned)	600	83.2%	121	16.8%	721	100.0%
Description of process * Gender	620	86.0%	101	14.0%	721	100.0%
Description of process * Age (Binned)	600	83.2%	121	16.8%	721	100.0%
Tailor-made * Gender	620	86.0%	101	14.0%	721	100.0%
Tailor-made * Age (Binned)	600	83.2%	121	16.8%	721	100.0%
Short payback * Gender	620	86.0%	101	14.0%	721	100.0%
Short payback * Age (Binned)	600	83.2%	121	16.8%	721	100.0%

Proven result * Gender

Crosstab

			Gender		
			1 male	2 female	Total
Proven result	1 yes	Count	62	73	135
		% within Proven result	45.9%	54.1%	100.0%
		% within Gender	20.6%	22.9%	21.8%
		% of Total	10.0%	11.8%	21.8%
	2 no	Count	239	246	485
		% within Proven result	49.3%	50.7%	100.0%
		% within Gender	79.4%	77.1%	78.2%
		% of Total	38.5%	39.7%	78.2%
	Total	Count	301	319	620
		% within Proven result	48.5%	51.5%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	48.5%	51.5%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.475[a]	1	.491		
Continuity Correction[b]	.350	1	.554		
Likelihood Ratio	.476	1	.490		
Fisher's Exact Test				.497	.277
Linear-by-Linear Association	.474	1	.491		
N of Valid Cases	620				
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 65.54.					
b. Computed only for a 2x2 table					

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	-.028	.491
	Cramer's V	.028	.491
	N of Valid Cases	620	

Proven result * Age (Binned)

Crosstab

			Age (Binned)	

			1 under 70	2 between 57-69	3 between 42-56	4 over 41	Total
Proven result	1 yes	Count	40	33	31	28	132
		% within Proven result	30.3%	25.0%	23.5%	21.2%	100.0%
		% within Age (Binned)	24.8%	24.1%	18.8%	20.4%	22.0%
		% of Total	6.7%	5.5%	5.2%	4.7%	22.0%
	2 no	Count	121	104	134	109	468
		% within Proven result	25.9%	22.2%	28.6%	23.3%	100.0%
		% within Age (Binned)	75.2%	75.9%	81.2%	79.6%	78.0%
		% of Total	20.2%	17.3%	22.3%	18.2%	78.0%
	Total	Count	161	137	165	137	600
		% within Proven result	26.8%	22.8%	27.5%	22.8%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	26.8%	22.8%	27.5%	22.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.294[a]	3	.514
Likelihood Ratio	2.306	3	.511
Linear-by-Linear Association	1.565	1	.211
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 30.14.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.062	.514
	Cramer's V	.062	.514
	N of Valid Cases	600	

Description of process * Gender

Crosstab

			Gender		
			1 male	2 female	Total
Description of process	1 yes	Count	52	50	102
		% within Description of process	51.0%	49.0%	100.0%
		% within Gender	17.3%	15.7%	16.5%
		% of Total	8.4%	8.1%	16.5%
	2 no	Count	249	269	518
		% within Description of process	48.1%	51.9%	100.0%
		% within Gender	82.7%	84.3%	83.5%
		% of Total	40.2%	43.4%	83.5%
	Total	Count	301	319	620
		% within Description of process	48.5%	51.5%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	48.5%	51.5%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.289[a]	1	.591		
Continuity Correction[b]	.184	1	.668		
Likelihood Ratio	.289	1	.591		
Fisher's Exact Test				.665	.334
Linear-by-Linear Association	.289	1	.591		
N of Valid Cases	620				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 49.52.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.022	.591
	Cramer's V	.022	.591
	N of Valid Cases	620	

Description of process * Age (Binned)

Crosstab

			Age (Binned)				
			1 under 70	2 between 57-69	3 between 42-56	4 over 41	Total
Description of process	1 yes	Count	20	24	22	33	99
		% within Description of process	20.2%	24.2%	22.2%	33.3%	100.0%
		% within Age (Binned)	12.4%	17.5%	13.3%	24.1%	16.5%
		% of Total	3.3%	4.0%	3.7%	5.5%	16.5%
	2 no	Count	141	113	143	104	501
		% within Description of process	28.1%	22.6%	28.5%	20.8%	100.0%
		% within Age (Binned)	87.6%	82.5%	86.7%	75.9%	83.5%
		% of Total	23.5%	18.8%	23.8%	17.3%	83.5%
	Total	Count	161	137	165	137	600
		% within Description of process	26.8%	22.8%	27.5%	22.8%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	26.8%	22.8%	27.5%	22.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.972[a]	3	.030
Likelihood Ratio	8.617	3	.035
Linear-by-Linear Association	4.762	1	.029
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 22.61.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.122	.030
	Cramer's V	.122	.030
	N of Valid Cases	600	

Tailor-made * Gender

Crosstab

			Gender		
			1 male	2 female	Total
Tailor-made	1 yes	Count	31	53	84
		% within Tailor-made	36.9%	63.1%	100.0%
		% within Gender	10.3%	16.6%	13.5%
		% of Total	5.0%	8.5%	13.5%
	2 no	Count	270	266	536
		% within Tailor-made	50.4%	49.6%	100.0%
		% within Gender	89.7%	83.4%	86.5%
		% of Total	43.5%	42.9%	86.5%
	Total	Count	301	319	620
		% within Tailor-made	48.5%	51.5%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	48.5%	51.5%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	5.274[a]	1	.022		
Continuity Correction[b]	4.748	1	.029		
Likelihood Ratio	5.337	1	.021		
Fisher's Exact Test				.025	.014
Linear-by-Linear Association	5.265	1	.022		
N of Valid Cases	620				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 40.78.
b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approx. Sig.

Nominal by Nominal	Phi	-.092	.022
	Cramer's V	.092	.022
	N of Valid Cases	620	

Tailor-made * Age (Binned)

Crosstab

			Age (Binned)				
			1 under 70	2 between 57-69	3 between 42-56	4 over 41	Total
Tailor-made	1 yes	Count	20	15	21	25	81
		% within Tailor-made	24.7%	18.5%	25.9%	30.9%	100.0%
		% within Age (Binned)	12.4%	10.9%	12.7%	18.2%	13.5%
		% of Total	3.3%	2.5%	3.5%	4.2%	13.5%
	2 no	Count	141	122	144	112	519
		% within Tailor-made	27.2%	23.5%	27.7%	21.6%	100.0%
		% within Age (Binned)	87.6%	89.1%	87.3%	81.8%	86.5%
		% of Total	23.5%	20.3%	24.0%	18.7%	86.5%
	Total	Count	161	137	165	137	600
		% within Tailor-made	26.8%	22.8%	27.5%	22.8%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	26.8%	22.8%	27.5%	22.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.653[a]	3	.301
Likelihood Ratio	3.481	3	.323
Linear-by-Linear Association	2.082	1	.149
N of Valid Cases	600		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 18.50.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.078	.301
	Cramer's V	.078	.301
	N of Valid Cases	600	

Short payback * Gender

Crosstab

			Gender		
			1 male	2 female	Total
Short payback	1 yes	Count	42	27	69
		% within Short payback	60.9%	39.1%	100.0%
		% within Gender	14.0%	8.5%	11.1%
		% of Total	6.8%	4.4%	11.1%
	2 no	Count	259	292	551
		% within Short payback	47.0%	53.0%	100.0%
		% within Gender	86.0%	91.5%	88.9%
		% of Total	41.8%	47.1%	88.9%
	Total	Count	301	319	620
		% within Short payback	48.5%	51.5%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	48.5%	51.5%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.719[a]	1	.030		
Continuity Correction[b]	4.180	1	.041		
Likelihood Ratio	4.742	1	.029		
Fisher's Exact Test				.040	.020
Linear-by-Linear Association	4.711	1	.030		
N of Valid Cases	620				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 33.50.

b. Computed only for a 2x2 table

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.087	.030
	Cramer's V	.087	.030
	N of Valid Cases	620	

Short payback * Age (Binned)

Crosstab							
			Age (Binned)				
			1 under 70	2 between 57-69	3 between 42-56	4 over 41	Total
Short payback	1 yes	Count	25	14	15	14	68
		% within Short payback	36.8%	20.6%	22.1%	20.6%	100.0%
		% within Age (Binned)	15.5%	10.2%	9.1%	10.2%	11.3%
		% of Total	4.2%	2.3%	2.5%	2.3%	11.3%
	2 no	Count	136	123	150	123	532
		% within Short payback	25.6%	23.1%	28.2%	23.1%	100.0%
		% within Age (Binned)	84.5%	89.8%	90.9%	89.8%	88.7%
		% of Total	22.7%	20.5%	25.0%	20.5%	88.7%
	Total	Count	161	137	165	137	600
		% within Short payback	26.8%	22.8%	27.5%	22.8%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	26.8%	22.8%	27.5%	22.8%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.983[a]	3	.263
Likelihood Ratio	3.790	3	.285
Linear-by-Linear Association	2.432	1	.119
N of Valid Cases	600		
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 15.53.			

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.081	.263
	Cramer's V	.081	.263
	N of Valid Cases	600	

7 Which programmes would participants be interested in participating in the future?

Kendall's tau_b nonparametric correlations for future participation in specific programmes (Question C3) and respondents' gender (Question D10) and age (Question D11)

Correlations				
			Gender	Age (Binned)
Kendall's tau_b	Advice	Correlation Coefficient	-.048	.040
		Sig. (2-tailed)	.225	.278
		N	537	520
	Insulation	Correlation Coefficient	.026	-.018
		Sig. (2-tailed)	.503	.614
		N	551	537
	Appliances	Correlation Coefficient	-.012	.031
		Sig. (2-tailed)	.767	.396
		N	555	539
	RE	Correlation Coefficient	.000	.058
		Sig. (2-tailed)	.998	.095
		N	591	574
	None	Correlation Coefficient	.040	.290**
		Sig. (2-tailed)	.485	.000
		N	295	280
**. Correlation is significant at the 0.01 level (2-tailed).				

MONOVA for future participation in specific programmes (Question C3) and respondents' gender (Question D10)

Between-Subjects Factors			
		Value Label	N
Gender	1	male	237
	2	female	268

Descriptive Statistics				
	Gender	Mean	Std. Deviation	N
Advice	1 male	2.98	1.237	237
	2 female	2.79	1.264	268
	Total	2.88	1.253	505
Insulation	1 male	2.31	1.181	237
	2 female	2.39	1.177	268
	Total	2.35	1.178	505
Appliances	1 male	2.52	1.007	237
	2 female	2.49	1.047	268
	Total	2.50	1.028	505
RE	1 male	2.30	1.186	237
	2 female	2.27	1.176	268
	Total	2.29	1.179	505

Box's Test of Equality of Covariance Matrices[a]	
Box's M	3.615
F	.358
df1	10
df2	1169197.908
Sig.	.964
Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.	
a. Design: Intercept + D10	

Multivariate Tests[b]							
Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.976	5181.261[a]	4.000	500.000	.000	.976
	Wilks' Lambda	.024	5181.261[a]	4.000	500.000	.000	.976
	Hotelling's Trace	41.450	5181.261[a]	4.000	500.000	.000	.976
	Roy's Largest Root	41.450	5181.261[a]	4.000	500.000	.000	.976
Gender	Pillai's Trace	.008	1.002[a]	4.000	500.000	.406	.008
	Wilks' Lambda	.992	1.002[a]	4.000	500.000	.406	.008
	Hotelling's Trace	.008	1.002[a]	4.000	500.000	.406	.008
	Roy's Largest Root	.008	1.002[a]	4.000	500.000	.406	.008
a. Exact statistic							
b. Design: Intercept + D10							

Levene's Test of Equality of Error Variances[a]				
	F	df1	df2	Sig.
Advice	3.015	1	503	.083
Insulation	.020	1	503	.889
Appliances	1.016	1	503	.314
RE	.026	1	503	.873
Tests the null hypothesis that the error variance of the dependent variable is equal across groups.				
a. Design: Intercept + D10				

Tests of Between-Subjects Effects							
Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Advice	4.439[a]	1	4.439	2.836	.093	.006
	Insulation	.796[b]	1	.796	.573	.449	.001
	Appliances	.149[c]	1	.149	.141	.708	.000
	RE	.093[d]	1	.093	.067	.796	.000
Intercept	Advice	4187.314	1	4187.314	2675.607	.000	.842

	Insulation	2783.117	1	2783.117	2003.427	.000	.799
	Appliances	3159.483	1	3159.483	2986.758	.000	.856
	RE	2629.043	1	2629.043	1886.876	.000	.790
Gender	Advice	4.439	1	4.439	2.836	.093	.006
	Insulation	.796	1	.796	.573	.449	.001
	Appliances	.149	1	.149	.141	.708	.000
	RE	.093	1	.093	.067	.796	.000
Error	Advice	787.193	503	1.565			
	Insulation	698.756	503	1.389			
	Appliances	532.089	503	1.058			
	RE	700.846	503	1.393			
Total	Advice	4978.000	505				
	Insulation	3499.000	505				
	Appliances	3701.000	505				
	RE	3338.000	505				
Corrected Total	Advice	791.632	504				
	Insulation	699.552	504				
	Appliances	532.238	504				
	RE	700.939	504				
a. R Squared = .006 (Adjusted R Squared = .004)							
b. R Squared = .001 (Adjusted R Squared = -.001)							
c. R Squared = .000 (Adjusted R Squared = -.002)							
d. R Squared = .000 (Adjusted R Squared = -.002)							

Estimated Marginal Means

Gender					
Dependent Variable	Gender			95% Confidence Interval	
		Mean	Std. Error	Lower Bound	Upper Bound
Advice	1 male	2.979	.081	2.819	3.139
	2 female	2.791	.076	2.641	2.941
Insulation	1 male	2.312	.077	2.162	2.463
	2 female	2.392	.072	2.250	2.533
Appliances	1 male	2.523	.067	2.392	2.654
	2 female	2.489	.063	2.365	2.612
RE	1 male	2.300	.077	2.149	2.450
	2 female	2.272	.072	2.131	2.414

MONOVA for future participation in specific programmes (Question C3) and respondents' age (Question D11)

Between-Subjects Factors			
		Value Label	N
Age (Binned)	1	over 70	94
	2	1941 - 1953	114
	3	between 42-56	145
	4	41 or under	138

Descriptive Statistics				
	Age (Binned)	Mean	Std. Deviation	N
Advice	1 over 70	2.84	1.306	94
	2 between 57-69	2.92	1.242	114
	3 between 42-56	2.69	1.267	145
	4 41 or under	3.03	1.220	138
	Total	2.87	1.259	491
Insulation	1 over 70	2.57	1.196	94
	2 between 57-69	2.24	1.207	114
	3 between 42-56	2.41	1.176	145
	4 41 or under	2.22	1.127	138
	Total	2.35	1.178	491
Appliances	1 over 70	2.60	1.061	94
	2 between 57-69	2.38	1.017	114
	3 between 42-56	2.58	1.032	145
	4 41 or under	2.49	.998	138
	Total	2.51	1.025	491

RE	1 over 70	2.32	1.109	94
	2 between 57-69	2.32	1.259	114
	3 between 42-56	2.19	1.184	145
	4 41 or under	2.36	1.165	138
	Total	2.29	1.181	491

Box's Test of Equality of Covariance Matrices[a]	
Box's M	39.625
F	1.301
df1	30
df2	528980.975
Sig.	.125
Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.	
a. Design: Intercept + Age group	

Multivariate Tests[c]							
Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.976	4823.183[a]	4.000	484.000	.000	.976
	Wilks' Lambda	.024	4823.183[a]	4.000	484.000	.000	.976
	Hotelling's Trace	39.861	4823.183[a]	4.000	484.000	.000	.976
	Roy's Largest Root	39.861	4823.183[a]	4.000	484.000	.000	.976
Age group	Pillai's Trace	.036	1.496	12.000	1458.000	.119	.012
	Wilks' Lambda	.964	1.496	12.000	1280.835	.119	.012
	Hotelling's Trace	.037	1.495	12.000	1448.000	.119	.012
	Roy's Largest Root	.023	2.742[b]	4.000	486.000	.028	.022
a. Exact statistic							
b. The statistic is an upper bound on F that yields a lower bound on the significance level.							
c. Design: Intercept + Age group							

Levene's Test of Equality of Error Variances[a]				
	F	df1	df2	Sig.
Advice	1.509	3	487	.211
Insulation	.694	3	487	.556
Appliances	.297	3	487	.827
RE	1.103	3	487	.347
Tests the null hypothesis that the error variance of the dependent variable is equal across groups.				
a. Design: Intercept + Age group				

Tests of Between-Subjects Effects							
Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Advice	8.581[a]	3	2.860	1.814	.144	.011
	Insulation	8.955[b]	3	2.985	2.167	.091	.013
	Appliances	3.481[c]	3	1.160	1.105	.347	.007
	RE	2.495[d]	3	.832	.594	.619	.004
Intercept	Advice	3927.891	1	3927.891	2491.335	.000	.836
	Insulation	2661.377	1	2661.377	1932.178	.000	.799
	Appliances	3002.893	1	3002.893	2860.581	.000	.855
	RE	2518.309	1	2518.309	1800.183	.000	.787
Age group	Advice	8.581	3	2.860	1.814	.144	.011
	Insulation	8.955	3	2.985	2.167	.091	.013
	Appliances	3.481	3	1.160	1.105	.347	.007
	RE	2.495	3	.832	.594	.619	.004
Error	Advice	767.814	487	1.577			
	Insulation	670.793	487	1.377			
	Appliances	511.228	487	1.050			
	RE	681.273	487	1.399			
Total	Advice	4814.000	491				
	Insulation	3392.000	491				
	Appliances	3606.000	491				
	RE	3266.000	491				
Corrected	Advice	776.395	490				

Total	Insulation	679.747	490				
	Appliances	514.709	490				
	RE	683.768	490				
a. R Squared = .011 (Adjusted R Squared = .005)							
b. R Squared = .013 (Adjusted R Squared = .007)							
c. R Squared = .007 (Adjusted R Squared = .001)							
d. R Squared = .004 (Adjusted R Squared = -.002)							

Estimated Marginal Means

Age (Binned)					
Dependent Variable	Age (Binned)			95% Confidence Interval	
		Mean	Std. Error	Lower Bound	Upper Bound
Advice	1 over 70	2.840	.130	2.586	3.095
	2 between 57-69	2.921	.118	2.690	3.152
	3 between 42-56	2.690	.104	2.485	2.895
	4 41 or under	3.029	.107	2.819	3.239
Insulation	1 over 70	2.574	.121	2.337	2.812
	2 between 57-69	2.237	.110	2.021	2.453
	3 between 42-56	2.414	.097	2.222	2.605
	4 41 or under	2.225	.100	2.028	2.421
Appliances	1 over 70	2.596	.106	2.388	2.803
	2 between 57-69	2.377	.096	2.189	2.566
	3 between 42-56	2.579	.085	2.412	2.746
	4 41 or under	2.486	.087	2.314	2.657
RE	1 over 70	2.319	.122	2.079	2.559
	2 between 57-69	2.325	.111	2.107	2.542
	3 between 42-56	2.186	.098	1.993	2.379
	4 41 or under	2.362	.101	2.164	2.560

8 Which organizations would respondents prefer to administer future programmes?

Kendall's tau_b nonparametric correlations for administrative organization of future programmes (Question C4) and respondents' gender (Question D10) and age (Question D11)

Correlations				
			Gender	Age (Binned)
Kendall's tau_b	Government	Correlation Coefficient	.028	-.080*
		Sig. (2-tailed)	.461	.026
		N	519	504
	LA	Correlation Coefficient	-.023	.030
		Sig. (2-tailed)	.551	.405
		N	546	529
	Voluntary org	Correlation Coefficient	-.002	.083*
		Sig. (2-tailed)	.954	.024
		N	506	490
	Supplier	Correlation Coefficient	.013	.024
		Sig. (2-tailed)	.731	.497
		N	520	504
	Community	Correlation Coefficient	.016	.140**
		Sig. (2-tailed)	.701	.000
		N	486	469
	None	Correlation Coefficient	-.036	.056
		Sig. (2-tailed)	.479	.242
		N	335	323
	Don't mind	Correlation Coefficient	-.086	-.021
		Sig. (2-tailed)	.053	.603
		N	418	406
*. Correlation is significant at the 0.05 level (2-tailed).				
**. Correlation is significant at the 0.01 level (2-tailed).				

MANOVA for administrative organizations of future programmes (Question C4) and respondents' gender (Question D10)

Between-Subjects Factors			
		Value Label	N

Gender	1	male	238
	2	female	233

Descriptive Statistics

	Gender	Mean	Std. Deviation	N
Government	1 male	3.53	1.939	238
	2 female	3.58	1.811	233
	Total	3.55	1.875	471
LA	1 male	2.32	1.517	238
	2 female	2.29	1.492	233
	Total	2.30	1.503	471
Voluntary org	1 male	3.30	1.443	238
	2 female	3.32	1.427	233
	Total	3.31	1.434	471
Supplier	1 male	3.40	1.670	238
	2 female	3.53	1.616	233
	Total	3.46	1.643	471
Community	1 male	3.87	1.499	238
	2 female	3.87	1.518	233
	Total	3.87	1.507	471

Box's Test of Equality of Covariance Matrices[a]

Box's M	11.122
F	.733
df1	15
df2	884771.349
Sig.	.753

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.
a. Design: Intercept + D10

Multivariate Tests[b]

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.974	3515.065[a]	5.000	465.000	.000	.974
	Wilks' Lambda	.026	3515.065[a]	5.000	465.000	.000	.974
	Hotelling's Trace	37.796	3515.065[a]	5.000	465.000	.000	.974
	Roy's Largest Root	37.796	3515.065[a]	5.000	465.000	.000	.974
Gender	Pillai's Trace	.002	.204[a]	5.000	465.000	.961	.002
	Wilks' Lambda	.998	.204[a]	5.000	465.000	.961	.002
	Hotelling's Trace	.002	.204[a]	5.000	465.000	.961	.002
	Roy's Largest Root	.002	.204[a]	5.000	465.000	.961	.002

a. Exact statistic
b. Design: Intercept + gender

Levene's Test of Equality of Error Variances[a]

	F	df1	df2	Sig.
Government	1.630	1	469	.202
LA	.251	1	469	.616
Voluntary org	.159	1	469	.691
Supplier	.515	1	469	.473
Community	.001	1	469	.982

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.
a. Design: Intercept + gender

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Government	.203[a]	1	.203	.058	.811	.000
	LA	.064[b]	1	.064	.028	.867	.000
	Voluntary org	.044[c]	1	.044	.021	.884	.000
	Supplier	1.826[d]	1	1.826	.676	.411	.001
	Community	.006[e]	1	.006	.003	.960	.000
Intercept	Government	5949.697	1	5949.697	1688.939	.000	.783

	LA	2498.866	1	2498.866	1104.047	.000	.702
	Voluntary org	5153.377	1	5153.377	2501.181	.000	.842
	Supplier	5656.348	1	5656.348	2093.215	.000	.817
	Community	7054.970	1	7054.970	3100.740	.000	.869
D10	Government	.203	1	.203	.058	.811	.000
	LA	.064	1	.064	.028	.867	.000
	Voluntary org	.044	1	.044	.021	.884	.000
	Supplier	1.826	1	1.826	.676	.411	.001
	Community	.006	1	.006	.003	.960	.000
Error	Government	1652.167	469	3.523			
	LA	1061.520	469	2.263			
	Voluntary org	966.317	469	2.060			
	Supplier	1267.346	469	2.702			
	Community	1067.094	469	2.275			
Total	Government	7602.000	471				
	LA	3561.000	471				
	Voluntary org	6120.000	471				
	Supplier	6924.000	471				
	Community	8123.000	471				
Corrected Total	Government	1652.369	470				
	LA	1061.584	470				
	Voluntary org	966.361	470				
	Supplier	1269.172	470				
	Community	1067.100	470				
a. R Squared = .000 (Adjusted R Squared = -.002)							
b. R Squared = .000 (Adjusted R Squared = -.002)							
c. R Squared = .000 (Adjusted R Squared = -.002)							
d. R Squared = .001 (Adjusted R Squared = -.001)							
e. R Squared = .000 (Adjusted R Squared = -.002)							

Estimated Marginal Means

Gender					
Dependent Variable	Gender			95% Confidence Interval	
		Mean	Std. Error	Lower Bound	Upper Bound
Government	1 male	3.534	.122	3.295	3.773
	2 female	3.575	.123	3.333	3.817
LA	1 male	2.315	.098	2.123	2.507
	2 female	2.292	.099	2.098	2.486
Voluntary org	1 male	3.298	.093	3.115	3.481
	2 female	3.318	.094	3.133	3.502
Supplier	1 male	3.403	.107	3.194	3.613
	2 female	3.528	.108	3.316	3.740
Community	1 male	3.874	.098	3.682	4.066
	2 female	3.867	.099	3.673	4.061

The Chi-square test of independence for administrative organizations of future programmes (Question C4) and respondents' gender (Question D10)

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Don't mind * Gender	418	58.0%	303	42.0%	721	100.0%

Don't mind * Gender Crosstabulation					
			Gender		
			1 male	2 female	Total
Don't mind	1	Count	61	94	155
		% within Don't mind	39.4%	60.6%	100.0%
		% within Gender	30.7%	42.9%	37.1%
		% of Total	14.6%	22.5%	37.1%
	2	Count	7	5	12
		% within Don't mind	58.3%	41.7%	100.0%
		% within Gender	3.5%	2.3%	2.9%
		% of Total	1.7%	1.2%	2.9%

	3	Count	10	7	17
		% within Don't mind	58.8%	41.2%	100.0%
		% within Gender	5.0%	3.2%	4.1%
		% of Total	2.4%	1.7%	4.1%
	4	Count	6	5	11
		% within Don't mind	54.5%	45.5%	100.0%
		% within Gender	3.0%	2.3%	2.6%
		% of Total	1.4%	1.2%	2.6%
	5	Count	12	9	21
		% within Don't mind	57.1%	42.9%	100.0%
		% within Gender	6.0%	4.1%	5.0%
		% of Total	2.9%	2.2%	5.0%
	6	Count	59	57	116
		% within Don't mind	50.9%	49.1%	100.0%
		% within Gender	29.6%	26.0%	27.8%
		% of Total	14.1%	13.6%	27.8%
	7	Count	44	42	86
		% within Don't mind	51.2%	48.8%	100.0%
		% within Gender	22.1%	19.2%	20.6%
		% of Total	10.5%	10.0%	20.6%
	Total	Count	199	219	418
		% within Don't mind	47.6%	52.4%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	47.6%	52.4%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.549[a]	6	.273
Likelihood Ratio	7.592	6	.270
Linear-by-Linear Association	4.073	1	.044
N of Valid Cases	418		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.24.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.134	.273
	Cramer's V	.134	.273
	N of Valid Cases	418	

MANOVA for administrative organizations of future programmes (Question C4) and respondents' age (Question D11)

Between-Subjects Factors

		Value Label	N
Age (Binned)	1	over 70	108
	2	between 57-69	107
	3	between 42-56	123
	4	41 or under	119

Descriptive Statistics

	Age (Binned)	Mean	Std. Deviation	N
Government	1 over 70	3.98	1.986	108
	2 between 57-69	3.78	1.963	107
	3 between 42-56	3.33	1.836	123
	4 41 or under	3.24	1.681	119
	Total	3.56	1.884	457
LA	1 over 70	2.31	1.585	108
	2 between 57-69	2.42	1.649	107
	3 between 42-56	2.25	1.441	123
	4 41 or under	2.24	1.365	119
	Total	2.30	1.505	457
Voluntary org	1 over 70	3.22	1.449	108
	2 between 57-69	3.21	1.432	107
	3 between 42-56	3.32	1.500	123
	4 41 or under	3.49	1.346	119

	Total	3.31	1.433	457
Supplier	1 over 70	3.44	1.590	108
	2 between 57-69	3.53	1.717	107
	3 between 42-56	3.43	1.756	123
	4 41 or under	3.45	1.572	119
	Total	3.46	1.657	457
Community	1 over 70	3.58	1.523	108
	2 between 57-69	3.80	1.551	107
	3 between 42-56	3.84	1.495	123
	4 41 or under	4.24	1.424	119
	Total	3.87	1.511	457

Box's Test of Equality of Covariance Matrices[a]

Box's M	53.924
F	1.175
df1	45
df2	495383.467
Sig.	.197

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.
a. Design: Intercept + Age

Multivariate Tests[c]

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.974	3389.004[a]	5.000	449.000	.000	.974
	Wilks' Lambda	.026	3389.004[a]	5.000	449.000	.000	.974
	Hotelling's Trace	37.739	3389.004[a]	5.000	449.000	.000	.974
	Roy's Largest Root	37.739	3389.004[a]	5.000	449.000	.000	.974
Age	Pillai's Trace	.049	1.487	15.000	1353.000	.102	.016
	Wilks' Lambda	.952	1.493	15.000	1239.893	.100	.016
	Hotelling's Trace	.050	1.499	15.000	1343.000	.098	.016
	Roy's Largest Root	.040	3.579[b]	5.000	451.000	.003	.038

a. Exact statistic
b. The statistic is an upper bound on F that yields a lower bound on the significance level.
c. Design: Intercept + Age

Levene's Test of Equality of Error Variances[a]

	F	df1	df2	Sig.
Government	2.862	3	453	.056
LA	1.252	3	453	.290
Voluntary org	.666	3	453	.573
Supplier	.790	3	453	.500
Community	1.139	3	453	.333

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.
a. Design: Intercept + Age

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Government	43.021[a]	3	14.340	4.124	.007	.027
	LA	2.217[b]	3	.739	.325	.807	.002
	Voluntary org	5.745[c]	3	1.915	.932	.425	.006
	Supplier	.740[d]	3	.247	.089	.966	.001
	Community	25.351[e]	3	8.450	3.770	.011	.024
Intercept	Government	5840.569	1	5840.569	1679.513	.000	.788
	LA	2420.207	1	2420.207	1064.306	.000	.701
	Voluntary org	4982.960	1	4982.960	2425.857	.000	.843
	Supplier	5461.068	1	5461.068	1977.762	.000	.814
	Community	6801.780	1	6801.780	3034.809	.000	.870
Age	Government	43.021	3	14.340	4.124	.007	.027
	LA	2.217	3	.739	.325	.807	.002
	Voluntary org	5.745	3	1.915	.932	.425	.006
	Supplier	.740	3	.247	.089	.966	.001
	Community	25.351	3	8.450	3.770	.011	.024

Error	Government	1575.325	453	3.478			
	LA	1030.111	453	2.274			
	Voluntary org	930.509	453	2.054			
	Supplier	1250.840	453	2.761			
	Community	1015.288	453	2.241			
Total	Government	7425.000	457				
	LA	3454.000	457				
	Voluntary org	5952.000	457				
	Supplier	6728.000	457				
	Community	7896.000	457				
Corrected Total	Government	1618.346	456				
	LA	1032.328	456				
	Voluntary org	936.254	456				
	Supplier	1251.580	456				
	Community	1040.639	456				
a. R Squared = .027 (Adjusted R Squared = .020)							
b. R Squared = .002 (Adjusted R Squared = -.004)							
c. R Squared = .006 (Adjusted R Squared = .000)							
d. R Squared = .001 (Adjusted R Squared = -.006)							
e. R Squared = .024 (Adjusted R Squared = .018)							

Estimated Marginal Means

Age (Binned)					
Dependent Variable	Age (Binned)			95% Confidence Interval	
		Mean	Std. Error	Lower Bound	Upper Bound
Government	1 over 70	3.981	.179	3.629	4.334
	2 between 57-69	3.776	.180	3.421	4.130
	3 between 42-56	3.333	.168	3.003	3.664
	4 41 or under	3.235	.171	2.899	3.571
LA	1 over 70	2.306	.145	2.020	2.591
	2 between 57-69	2.421	.146	2.134	2.707
	3 between 42-56	2.252	.136	1.985	2.519
	4 41 or under	2.244	.138	1.972	2.515
Voluntary org	1 over 70	3.222	.138	2.951	3.493
	2 between 57-69	3.206	.139	2.933	3.478
	3 between 42-56	3.317	.129	3.063	3.571
	4 41 or under	3.487	.131	3.229	3.746
Supplier	1 over 70	3.435	.160	3.121	3.749
	2 between 57-69	3.533	.161	3.217	3.848
	3 between 42-56	3.431	.150	3.136	3.725
	4 41 or under	3.454	.152	3.154	3.753
Community	1 over 70	3.583	.144	3.300	3.866
	2 between 57-69	3.804	.145	3.519	4.088
	3 between 42-56	3.837	.135	3.572	4.103
	4 41 or under	4.235	.137	3.966	4.505

ANOVA for administrative organizations of future programmes (Question C4) and respondents' age (Question D11)

Descriptives - Don't mind								
					95% Confidence Interval for Mean			
	N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Minimum	Maximum
1 over 70	99	4.29	2.463	.248	3.80	4.78	1	7
2 between 57-69	94	3.85	2.501	.258	3.34	4.36	1	7
3 between 42-56	98	4.11	2.580	.261	3.59	4.63	1	7
4 41 or under	115	3.85	2.640	.246	3.36	4.34	1	7
Total	406	4.02	2.549	.126	3.77	4.27	1	7

Test of Homogeneity of Variances			
Don't mind			
Levene Statistic	df1	df2	Sig.
1.458	3	402	.226

ANOVA - Don't mind					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	14.128	3	4.709	.724	.538
Within Groups	2616.672	402	6.509		
Total	2630.800	405			

Robust Tests of Equality of Means - Don't mind				
	Statistic[a]	df1	df2	Sig.
Welch	.739	3	221.558	.530
Brown-Forsythe	.727	3	399.890	.537
a. Asymptotically F distributed.				

Post Hoc Tests

Multiple Comparisons						
Don't mind - Tukey HSD						
(I) Age (Binned)	(J) Age (Binned)				95% Confidence Interval	
		Mean Difference (I-J)	Lower Bound	Upper Bound	Lower Bound	Upper Bound
1 over 70	2 between 57-69	.442	-.51	1.39	-.51	1.39
	3 between 42-56	.181	-.76	1.12	-.76	1.12
	4 41 or under	.441	-.46	1.34	-.46	1.34
2 between 57-69	1 over 70	-.442	-1.39	.51	-1.39	.51
	3 between 42-56	-.261	-1.21	.69	-1.21	.69
	4 41 or under	-.001	-.92	.91	-.92	.91
3 between 42-56	1 over 70	-.181	-1.12	.76	-1.12	.76
	2 between 57-69	.261	-.69	1.21	-.69	1.21
	4 41 or under	.260	-.64	1.16	-.64	1.16
4 41 or under	1 over 70	-.441	-1.34	.46	-1.34	.46
	2 between 57-69	.001	-.91	.92	-.91	.92
	3 between 42-56	-.260	-1.16	.64	-1.16	.64

Homogeneous Subsets

Don't mind		
Tukey HSD[a,b]		
Age (Binned)		Subset for alpha = 0.05
	N	1
2 between 57-69	94	3.85
4 41 or under	115	3.85
3 between 42-56	98	4.11
1 over 70	99	4.29
Sig.		.608
Means for groups in homogeneous subsets are displayed.		
a. Uses Harmonic Mean Sample Size = 100.911.		
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.		

9 What size of programmes would participants prefer?

Kendall's tau_b nonparametric correlations for future programmes' size (Question C5) and respondents' gender (Question D10) and age (Question D11)

Correlations				
			Gender	Age (Binned)
Kendall's tau_b	UK	Correlation Coefficient	.096*	-.002
		Sig. (2-tailed)	.017	.950
		N	507	493
	Regional	Correlation Coefficient	.055	.003
		Sig. (2-tailed)	.171	.934
		N	492	479
	County	Correlation Coefficient	-.039	.017
		Sig. (2-tailed)	.350	.657
		N	487	475
	District	Correlation Coefficient	-.041	.045
		Sig. (2-tailed)	.320	.237
		N	488	475

	Community	Correlation Coefficient	-.037	.034
		Sig. (2-tailed)	.370	.379
		N	479	466
	Don't mind	Correlation Coefficient	-.125**	.031
		Sig. (2-tailed)	.004	.448
		N	497	484
*. Correlation is significant at the 0.05 level (2-tailed).				
**. Correlation is significant at the 0.01 level (2-tailed).				

MANOVA for future programmes' size (Question C5) and respondents' gender (Question D10)

Between-Subjects Factors			
		Value Label	N
Gender	1	male	177
	2	female	174

Descriptive Statistics				
	Gender	Mean	Std. Deviation	N
UK	1 male	3.04	1.935	177
	2 female	3.47	1.987	174
	Total	3.25	1.970	351
Regional	1 male	3.11	1.259	177
	2 female	3.20	1.231	174
	Total	3.15	1.244	351
County	1 male	3.00	1.039	177
	2 female	2.95	1.030	174
	Total	2.98	1.033	351
District	1 male	3.16	1.293	177
	2 female	3.07	1.299	174
	Total	3.12	1.295	351
Community	1 male	3.84	1.708	177
	2 female	3.60	1.802	174
	Total	3.72	1.757	351
Don't mind	1 male	4.89	2.014	177
	2 female	4.64	2.107	174
	Total	4.76	2.061	351

Box's Test of Equality of Covariance Matrices[a]	
Box's M	21.786
F	1.018
df1	21
df2	447707.533
Sig.	.435
Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.	
a. Design: Intercept + D10	

Multivariate Tests[b]							
Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.995	11335.003[a]	6.000	344.000	.000	.995
	Wilks' Lambda	.005	11335.003[a]	6.000	344.000	.000	.995
	Hotelling's Trace	197.704	11335.003[a]	6.000	344.000	.000	.995
	Roy's Largest Root	197.704	11335.003[a]	6.000	344.000	.000	.995
D10	Pillai's Trace	.016	.929[a]	6.000	344.000	.474	.016
	Wilks' Lambda	.984	.929[a]	6.000	344.000	.474	.016
	Hotelling's Trace	.016	.929[a]	6.000	344.000	.474	.016
	Roy's Largest Root	.016	.929[a]	6.000	344.000	.474	.016
a. Exact statistic							
b. Design: Intercept + D10							

Levene's Test of Equality of Error Variances[a]				
	F	df1	df2	Sig.
UK	.224	1	349	.637
Regional	.009	1	349	.923
County	.010	1	349	.919

District	.044	1	349	.833
Community	2.216	1	349	.137
Don't mind	2.264	1	349	.133
Tests the null hypothesis that the error variance of the dependent variable is equal across groups.				
a. Design: Intercept + D10				

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	UK	15.921[a]	1	15.921	4.140	.043	.012
	Regional	.772[b]	1	.772	.498	.481	.001
	County	.185[c]	1	.185	.173	.677	.000
	District	.697[d]	1	.697	.415	.520	.001
	Community	4.985[e]	1	4.985	1.618	.204	.005
	Don't mind	5.443[f]	1	5.443	1.282	.258	.004
Intercept	UK	3712.947	1	3712.947	965.576	.000	.735
	Regional	3491.940	1	3491.940	2252.989	.000	.866
	County	3110.544	1	3110.544	2905.478	.000	.893
	District	3414.942	1	3414.942	2032.852	.000	.853
	Community	4863.789	1	4863.789	1578.728	.000	.819
	Don't mind	7960.486	1	7960.486	1874.724	.000	.843
D10	UK	15.921	1	15.921	4.140	.043	.012
	Regional	.772	1	.772	.498	.481	.001
	County	.185	1	.185	.173	.677	.000
	District	.697	1	.697	.415	.520	.001
	Community	4.985	1	4.985	1.618	.204	.005
	Don't mind	5.443	1	5.443	1.282	.258	.004
Error	UK	1342.016	349	3.845			
	Regional	540.920	349	1.550			
	County	373.632	349	1.071			
	District	586.277	349	1.680			
	Community	1075.209	349	3.081			
	Don't mind	1481.930	349	4.246			
Total	UK	5067.000	351				
	Regional	4033.000	351				
	County	3485.000	351				
	District	4003.000	351				
	Community	5947.000	351				
	Don't mind	9452.000	351				
Corrected Total	UK	1357.937	350				
	Regional	541.692	350				
	County	373.818	350				
	District	586.974	350				
	Community	1080.194	350				
	Don't mind	1487.373	350				
a. R Squared = .012 (Adjusted R Squared = .009)							
b. R Squared = .001 (Adjusted R Squared = -.001)							
c. R Squared = .000 (Adjusted R Squared = -.002)							
d. R Squared = .001 (Adjusted R Squared = -.002)							
e. R Squared = .005 (Adjusted R Squared = .002)							
f. R Squared = .004 (Adjusted R Squared = .001)							

Estimated Marginal Means

Gender

Dependent Variable	Gender	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
UK	1 male	3.040	.147	2.750	3.329
	2 female	3.466	.149	3.173	3.758
Regional	1 male	3.107	.094	2.923	3.291
	2 female	3.201	.094	3.016	3.387
County	1 male	3.000	.078	2.847	3.153
	2 female	2.954	.078	2.800	3.108
District	1 male	3.164	.097	2.972	3.355
	2 female	3.075	.098	2.881	3.268

Community	1 male	3.842	.132	3.582	4.101
	2 female	3.603	.133	3.342	3.865
Don't mind	1 male	4.887	.155	4.582	5.192
	2 female	4.638	.156	4.331	4.945

MANOVA for future programmes' size (Question C5) and respondents' gender (Question D10)

Between-Subjects Factors			
		Value Label	N
Age (Binned)	1	over 70	75
	2	between 57-69	89
	3	between 42-56	88
	4	41 or under	92

Descriptive Statistics				
	Age (Binned)	Mean	Std. Deviation	N
UK	1 over 70	3.12	1.881	75
	2 between 57-69	3.13	1.990	89
	3 between 42-56	3.47	2.005	88
	4 41 or under	3.21	1.970	92
	Total	3.24	1.962	344
Regional	1 over 70	3.12	1.127	75
	2 between 57-69	3.15	1.310	89
	3 between 42-56	3.22	1.368	88
	4 41 or under	3.11	1.172	92
	Total	3.15	1.247	344
County	1 over 70	2.85	1.049	75
	2 between 57-69	3.07	1.106	89
	3 between 42-56	2.89	.952	88
	4 41 or under	3.09	1.002	92
	Total	2.98	1.029	344
District	1 over 70	3.05	1.365	75
	2 between 57-69	3.15	1.361	89
	3 between 42-56	3.05	1.203	88
	4 41 or under	3.24	1.296	92
	Total	3.13	1.302	344
Community	1 over 70	3.89	1.737	75
	2 between 57-69	3.90	1.693	89
	3 between 42-56	3.43	1.799	88
	4 41 or under	3.73	1.804	92
	Total	3.73	1.762	344
Don't mind	1 over 70	5.00	1.910	75
	2 between 57-69	4.72	2.137	89
	3 between 42-56	4.83	1.972	88
	4 41 or under	4.57	2.180	92
	Total	4.77	2.057	344

Box's Test of Equality of Covariance Matrices[a]	
Box's M	307.464
F	4.726
df1	63
df2	258887.888
Sig.	.000
Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.	
a. Design: Intercept + D11	

Multivariate Tests[c]							
Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.995	10789.811[a]	6.000	335.000	.000	.995
	Wilks' Lambda	.005	10789.811[a]	6.000	335.000	.000	.995
	Hotelling's Trace	193.250	10789.811[a]	6.000	335.000	.000	.995
	Roy's Largest Root	193.250	10789.811[a]	6.000	335.000	.000	.995
D11	Pillai's Trace	.032	.614	18.000	1011.000	.891	.011
	Wilks' Lambda	.968	.613	18.000	948.008	.892	.011

	Hotelling's Trace	.033	.611	18.000	1001.000	.893	.011
	Roy's Largest Root	.019	1.064[b]	6.000	337.000	.384	.019
a. Exact statistic							
b. The statistic is an upper bound on F that yields a lower bound on the significance level.							
c. Design: Intercept + D11							

Levene's Test of Equality of Error Variances[a]

	F	df1	df2	Sig.
UK	.653	3	340	.582
Regional	2.019	3	340	.111
County	.203	3	340	.894
District	.800	3	340	.495
Community	1.917	3	340	.127
Don't mind	2.811	3	340	.059
Tests the null hypothesis that the error variance of the dependent variable is equal across groups.				
a. Design: Intercept + D11				

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	UK	6.651[a]	3	2.217	.574	.632	.005
	Regional	.607[b]	3	.202	.129	.943	.001
	County	3.707[c]	3	1.236	1.170	.321	.010
	District	2.180[d]	3	.727	.426	.734	.004
	Community	12.361[e]	3	4.120	1.330	.264	.012
	Don't mind	8.366[f]	3	2.789	.657	.579	.006
Intercept	UK	3570.624	1	3570.624	924.415	.000	.731
	Regional	3387.107	1	3387.107	2161.313	.000	.864
	County	3022.679	1	3022.679	2861.507	.000	.894
	District	3329.949	1	3329.949	1953.908	.000	.852
	Community	4776.903	1	4776.903	1542.350	.000	.819
	Don't mind	7805.991	1	7805.991	1839.212	.000	.844
D11	UK	6.651	3	2.217	.574	.632	.005
	Regional	.607	3	.202	.129	.943	.001
	County	3.707	3	1.236	1.170	.321	.010
	District	2.180	3	.727	.426	.734	.004
	Community	12.361	3	4.120	1.330	.264	.012
	Don't mind	8.366	3	2.789	.657	.579	.006
Error	UK	1313.276	340	3.863			
	Regional	532.832	340	1.567			
	County	359.150	340	1.056			
	District	579.445	340	1.704			
	Community	1053.034	340	3.097			
	Don't mind	1443.029	340	4.244			
Total	UK	4921.000	344				
	Regional	3943.000	344				
	County	3417.000	344				
	District	3941.000	344				
	Community	5858.000	344				
	Don't mind	9270.000	344				
Corrected Total	UK	1319.927	343				
	Regional	533.439	343				
	County	362.858	343				
	District	581.625	343				
	Community	1065.395	343				
	Don't mind	1451.395	343				
a. R Squared = .005 (Adjusted R Squared = -.004)							
b. R Squared = .001 (Adjusted R Squared = -.008)							
c. R Squared = .010 (Adjusted R Squared = .001)							
d. R Squared = .004 (Adjusted R Squared = -.005)							
e. R Squared = .012 (Adjusted R Squared = .003)							
f. R Squared = .006 (Adjusted R Squared = -.003)							

Estimated Marginal Means

Age (Binned)					
Dependent Variable	Age (Binned)			95% Confidence Interval	
		Mean	Std. Error	Lower Bound	Upper Bound
UK	1 over 70	3.120	.227	2.674	3.566
	2 between 57-69	3.135	.208	2.725	3.545
	3 between 42-56	3.466	.210	3.054	3.878
	4 41 or under	3.207	.205	2.803	3.610
Regional	1 over 70	3.120	.145	2.836	3.404
	2 between 57-69	3.146	.133	2.885	3.407
	3 between 42-56	3.216	.133	2.953	3.478
	4 41 or under	3.109	.131	2.852	3.365
County	1 over 70	2.853	.119	2.620	3.087
	2 between 57-69	3.067	.109	2.853	3.282
	3 between 42-56	2.886	.110	2.671	3.102
	4 41 or under	3.087	.107	2.876	3.298
District	1 over 70	3.053	.151	2.757	3.350
	2 between 57-69	3.146	.138	2.874	3.418
	3 between 42-56	3.045	.139	2.772	3.319
	4 41 or under	3.239	.136	2.971	3.507
Community	1 over 70	3.893	.203	3.494	4.293
	2 between 57-69	3.899	.187	3.532	4.266
	3 between 42-56	3.432	.188	3.063	3.801
	4 41 or under	3.728	.183	3.367	4.089
Don't mind	1 over 70	5.000	.238	4.532	5.468
	2 between 57-69	4.719	.218	4.290	5.149
	3 between 42-56	4.830	.220	4.398	5.262
	4 41 or under	4.565	.215	4.143	4.988

10 Which marketing strategies would participants prefer?

Kendall's tau_b nonparametric correlations for future marketing strategies (Question C6) and respondents' gender (Question D10) and age (Question D11)

Correlations				
			Gender	Age (Binned)
Kendall's tau_b	TV	Correlation Coefficient	-.025	-.097**
		Sig. (2-tailed)	.523	.007
		N	533	519
	Internet	Correlation Coefficient	.087*	-.141**
		Sig. (2-tailed)	.027	.000
		N	500	487
	Radio	Correlation Coefficient	-.012	-.119**
		Sig. (2-tailed)	.760	.001
		N	506	493
	Mail out	Correlation Coefficient	.097*	.115**
		Sig. (2-tailed)	.011	.001
		N	534	519
	LA campaign	Correlation Coefficient	-.021	.147**
		Sig. (2-tailed)	.577	.000
		N	570	554
	Word of mouth	Correlation Coefficient	-.084*	.078*
		Sig. (2-tailed)	.032	.032
		N	503	490
	Don't mind	Correlation Coefficient	.000	.128**
		Sig. (2-tailed)	.997	.002
		N	442	430

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

MANOVA for future marketing strategies (Question C6) and respondents' gender (Question D10)

Between-Subjects Factors			
		Value Label	N
Gender	1	male	166

	2	female		181

Descriptive Statistics

	Gender	Mean	Std. Deviation	N
TV	1 male	2.96	1.740	166
	2 female	2.93	1.764	181
	Total	2.95	1.750	347
Internet	1 male	4.72	1.529	166
	2 female	4.99	1.650	181
	Total	4.86	1.597	347
Radio	1 male	4.19	1.469	166
	2 female	4.19	1.452	181
	Total	4.19	1.458	347
Mail out	1 male	3.16	1.673	166
	2 female	3.41	1.738	181
	Total	3.29	1.710	347
Word of mouth	1 male	4.31	1.848	166
	2 female	4.07	1.837	181
	Total	4.18	1.843	347
Don't mind	1 male	5.74	2.057	166
	2 female	5.93	1.874	181
	Total	5.84	1.963	347

Box's Test of Equality of Covariance Matrices[a]

Box's M	22.529
F	1.053
df1	21
df2	430947.959
Sig.	.393

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept + D10

Multivariate Tests[b]

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.994	9277.387[a]	6.000	340.000	.000	.994
	Wilks' Lambda	.006	9277.387[a]	6.000	340.000	.000	.994
	Hotelling's Trace	163.719	9277.387[a]	6.000	340.000	.000	.994
	Roy's Largest Root	163.719	9277.387[a]	6.000	340.000	.000	.994
D10	Pillai's Trace	.029	1.675[a]	6.000	340.000	.126	.029
	Wilks' Lambda	.971	1.675[a]	6.000	340.000	.126	.029
	Hotelling's Trace	.030	1.675[a]	6.000	340.000	.126	.029
	Roy's Largest Root	.030	1.675[a]	6.000	340.000	.126	.029

a. Exact statistic

b. Design: Intercept + D10

Levene's Test of Equality of Error Variances[a]

	F	df1	df2	Sig.
TV	.294	1	345	.588
Internet	.284	1	345	.594
Radio	.034	1	345	.855
Mail out	1.351	1	345	.246
Word of mouth	.154	1	345	.695
Don't mind	2.974	1	345	.086

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + D10

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	TV	.110[a]	1	.110	.036	.850	.000
	Internet	6.410[b]	1	6.410	2.525	.113	.007
	Radio	.002[c]	1	.002	.001	.975	.000
	Mail out	5.752[d]	1	5.752	1.973	.161	.006

	Word of mouth	5.026[e]	1	5.026	1.481	.224	.004
	Don't mind	3.035[f]	1	3.035	.787	.376	.002
Intercept	TV	3005.989	1	3005.989	978.503	.000	.739
	Internet	8156.831	1	8156.831	3213.659	.000	.903
	Radio	6081.478	1	6081.478	2852.845	.000	.892
	Mail out	3738.686	1	3738.686	1282.344	.000	.788
	Word of mouth	6071.193	1	6071.193	1789.404	.000	.838
	Don't mind	11790.574	1	11790.574	3058.623	.000	.899
D10	TV	.110	1	.110	.036	.850	.000
	Internet	6.410	1	6.410	2.525	.113	.007
	Radio	.002	1	.002	.001	.975	.000
	Mail out	5.752	1	5.752	1.973	.161	.006
	Word of mouth	5.026	1	5.026	1.481	.224	.004
	Don't mind	3.035	1	3.035	.787	.376	.002
Error	TV	1059.849	345	3.072			
	Internet	875.671	345	2.538			
	Radio	735.445	345	2.132			
	Mail out	1005.850	345	2.916			
	Word of mouth	1170.536	345	3.393			
	Don't mind	1329.928	345	3.855			
Total	TV	4070.000	347				
	Internet	9074.000	347				
	Radio	6828.000	347				
	Mail out	4770.000	347				
	Word of mouth	7243.000	347				
	Don't mind	13162.000	347				
Corrected Total	TV	1059.960	346				
	Internet	882.081	346				
	Radio	735.447	346				
	Mail out	1011.602	346				
	Word of mouth	1175.562	346				
	Don't mind	1332.963	346				

a. R Squared = .000 (Adjusted R Squared = -.003)
b. R Squared = .007 (Adjusted R Squared = .004)
c. R Squared = .000 (Adjusted R Squared = -.003)
d. R Squared = .006 (Adjusted R Squared = .003)
e. R Squared = .004 (Adjusted R Squared = .001)
f. R Squared = .002 (Adjusted R Squared = -.001)

Estimated Marginal Means

Gender

Dependent Variable	Gender	Mean	Std. Error	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
TV	1 male	2.964	.136	2.696	3.231
	2 female	2.928	.130	2.672	3.184
Internet	1 male	4.717	.124	4.474	4.960
	2 female	4.989	.118	4.756	5.222
Radio	1 male	4.193	.113	3.970	4.416
	2 female	4.188	.109	3.974	4.401
Mail out	1 male	3.157	.133	2.896	3.417
	2 female	3.414	.127	3.165	3.664
Word of mouth	1 male	4.307	.143	4.026	4.588
	2 female	4.066	.137	3.797	4.336
Don't mind	1 male	5.741	.152	5.441	6.041
	2 female	5.928	.146	5.641	6.215

The Chi-square test of independence for future marketing strategies (Question C6) and respondents' gender (Question D10)

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
LA campaign * Gender	565	78.9%	151	21.1%	716	100.0%

LA campaign * Gender Crosstabulation					
			Gender		
			1 male	2 female	Total
LA campaign	1	Count	109	115	224
		% within LA camp	48.7%	51.3%	100.0%
		% within Gender	40.1%	39.2%	39.6%
		% of Total	19.3%	20.4%	39.6%
	2	Count	54	72	126
		% within LA camp	42.9%	57.1%	100.0%
		% within Gender	19.9%	24.6%	22.3%
		% of Total	9.6%	12.7%	22.3%
	3	Count	35	45	80
		% within LA camp	43.8%	56.3%	100.0%
		% within Gender	12.9%	15.4%	14.2%
		% of Total	6.2%	8.0%	14.2%
	4	Count	41	33	74
		% within LA camp	55.4%	44.6%	100.0%
		% within Gender	15.1%	11.3%	13.1%
		% of Total	7.3%	5.8%	13.1%
	5	Count	20	22	42
		% within LA camp	47.6%	52.4%	100.0%
		% within Gender	7.4%	7.5%	7.4%
		% of Total	3.5%	3.9%	7.4%
	6	Count	5	4	9
		% within LA camp	55.6%	44.4%	100.0%
		% within Gender	1.8%	1.4%	1.6%
		% of Total	.9%	.7%	1.6%
	7	Count	8	2	10
		% within LA camp	80.0%	20.0%	100.0%
		% within Gender	2.9%	.7%	1.8%
		% of Total	1.4%	.4%	1.8%
	Total	Count	272	293	565
		% within LA camp	48.1%	51.9%	100.0%
		% within Gender	100.0%	100.0%	100.0%
		% of Total	48.1%	51.9%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.884[a]	6	.247
Likelihood Ratio	8.142	6	.228
Linear-by-Linear Association	1.788	1	.181
N of Valid Cases	565		
a. 3 cells (21.4%) have expected count less than 5. The minimum expected count is 4.33.			

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.118	.247
	Cramer's V	.118	.247
	N of Valid Cases	565	

MANOVA for future marketing strategies (Question C6) and respondents' age (Question D11)

Between-Subjects Factors			
		Value Label	N
Age (Binned)	1	over 70	96
	2	between 57-69	107
	3	between 42-56	129
	4	41 or under	120

Descriptive Statistics				
	Age (Binned)	Mean	Std. Deviation	N
TV	1 over 70	3.20	1.708	96
	2 between 57-69	3.03	1.668	107

	3 between 42-56	2.78	1.695	129
	4 41 or under	2.61	1.750	120
	Total	2.88	1.715	452
Internet	1 over 70	5.21	1.507	96
	2 between 57-69	4.98	1.602	107
	3 between 42-56	4.74	1.597	129
	4 41 or under	4.38	1.701	120
	Total	4.80	1.631	452
Radio	1 over 70	4.58	1.343	96
	2 between 57-69	4.16	1.499	107
	3 between 42-56	4.11	1.501	129
	4 41 or under	3.84	1.572	120
	Total	4.15	1.505	452
Word of mouth	1 over 70	3.97	1.922	96
	2 between 57-69	4.07	1.872	107
	3 between 42-56	4.13	1.998	129
	4 41 or under	4.29	1.831	120
	Total	4.13	1.906	452

Box's Test of Equality of Covariance Matrices[a]	
Box's M	23.353
F	.766
df1	30
df2	504264.460
Sig.	.816
Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.	
a. Design: Intercept + age	

Multivariate Tests[c]							
Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.971	3697.987[a]	4.000	445.000	.000	.971
	Wilks' Lambda	.029	3697.987[a]	4.000	445.000	.000	.971
	Hotelling's Trace	33.240	3697.987[a]	4.000	445.000	.000	.971
	Roy's Largest Root	33.240	3697.987[a]	4.000	445.000	.000	.971
Age	Pillai's Trace	.063	2.387	12.000	1341.000	.005	.021
	Wilks' Lambda	.937	2.424	12.000	1177.651	.004	.021
	Hotelling's Trace	.066	2.457	12.000	1331.000	.004	.022
	Roy's Largest Root	.063	7.008[b]	4.000	447.000	.000	.059
a. Exact statistic							
b. The statistic is an upper bound on F that yields a lower bound on the significance level.							
c. Design: Intercept + age							

Levene's Test of Equality of Error Variances[a]				
	F	df1	df2	Sig.
TV	.372	3	448	.773
Internet	1.504	3	448	.213
Radio	1.332	3	448	.263
Word of mouth	1.165	3	448	.323
Tests the null hypothesis that the error variance of the dependent variable is equal across groups.				
a. Design: Intercept + age				

Tests of Between-Subjects Effects							
Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	TV	22.116[a]	3	7.372	2.531	.057	.017
	Internet	40.755[b]	3	13.585	5.252	.001	.034
	Radio	29.665[c]	3	9.888	4.465	.004	.029
	Word of mouth	5.952[d]	3	1.984	.545	.652	.004
Intercept	TV	3764.816	1	3764.816	1292.770	.000	.743
	Internet	10409.381	1	10409.381	4024.613	.000	.900
	Radio	7772.776	1	7772.776	3509.916	.000	.887
	Word of mouth	7564.243	1	7564.243	2076.638	.000	.823
Age	TV	22.116	3	7.372	2.531	.057	.017

	Internet	40.755	3	13.585	5.252	.001	.034
	Radio	29.665	3	9.888	4.465	.004	.029
	Word of mouth	5.952	3	1.984	.545	.652	.004
Error	TV	1304.670	448	2.912			
	Internet	1158.721	448	2.586			
	Radio	992.105	448	2.215			
	Word of mouth	1631.859	448	3.643			
Total	TV	5083.000	452				
	Internet	11627.000	452				
	Radio	8808.000	452				
	Word of mouth	9333.000	452				
Corrected Total	TV	1326.785	451				
	Internet	1199.476	451				
	Radio	1021.770	451				
	Word of mouth	1637.812	451				
a. R Squared = .017 (Adjusted R Squared = .010)							
b. R Squared = .034 (Adjusted R Squared = .028)							
c. R Squared = .029 (Adjusted R Squared = .023)							
d. R Squared = .004 (Adjusted R Squared = -.003)							

Estimated Marginal Means

Age (Binned)					
Dependent Variable	Age (Binned)			95% Confidence Interval	
		Mean	Std. Error	Lower Bound	Upper Bound
TV	1 over 70	3.198	.174	2.856	3.540
	2 between 57-69	3.028	.165	2.704	3.352
	3 between 42-56	2.783	.150	2.488	3.078
	4 41 or under	2.608	.156	2.302	2.914
Internet	1 over 70	5.208	.164	4.886	5.531
	2 between 57-69	4.981	.155	4.676	5.287
	3 between 42-56	4.744	.142	4.466	5.022
	4 41 or under	4.383	.147	4.095	4.672
Radio	1 over 70	4.583	.152	4.285	4.882
	2 between 57-69	4.159	.144	3.876	4.442
	3 between 42-56	4.109	.131	3.851	4.366
	4 41 or under	3.842	.136	3.575	4.109
Word of mouth	1 over 70	3.969	.195	3.586	4.352
	2 between 57-69	4.075	.185	3.712	4.437
	3 between 42-56	4.132	.168	3.802	4.462
	4 41 or under	4.292	.174	3.949	4.634

The Chi-square test of independence for future marketing strategies (Question C6) and respondents' age (Question D11)

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
LA campaign * Age (Binned)	549	76.7%	167	23.3%	716	100.0%
Word of mouth * Age (Binned)	485	67.7%	231	32.3%	716	100.0%
Don't mind * Age (Binned)	425	59.4%	291	40.6%	716	100.0%

LA campaign * Age (Binned)

Crosstab							
			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
LA campaign	1	Count	65	56	55	41	217
		% within LA camp	30.0%	25.8%	25.3%	18.9%	100.0%
		% within Age (Binned)	47.1%	45.2%	35.7%	30.8%	39.5%
		% of Total	11.8%	10.2%	10.0%	7.5%	39.5%
	2	Count	35	28	31	27	121
		% within LA camp	28.9%	23.1%	25.6%	22.3%	100.0%
		% within Age (Binned)	25.4%	22.6%	20.1%	20.3%	22.0%
		% of Total	6.4%	5.1%	5.6%	4.9%	22.0%

	3	Count	16	16	25	21	78
		% within LA camp	20.5%	20.5%	32.1%	26.9%	100.0%
		% within Age (Binned)	11.6%	12.9%	16.2%	15.8%	14.2%
		% of Total	2.9%	2.9%	4.6%	3.8%	14.2%
	4	Count	16	12	19	26	73
		% within LA camp	21.9%	16.4%	26.0%	35.6%	100.0%
		% within Age (Binned)	11.6%	9.7%	12.3%	19.5%	13.3%
		% of Total	2.9%	2.2%	3.5%	4.7%	13.3%
	5	Count	4	9	15	13	41
		% within LA camp	9.8%	22.0%	36.6%	31.7%	100.0%
		% within Age (Binned)	2.9%	7.3%	9.7%	9.8%	7.5%
		% of Total	.7%	1.6%	2.7%	2.4%	7.5%
	6	Count	0	0	5	4	9
		% within LA camp	.0%	.0%	55.6%	44.4%	100.0%
		% within Age (Binned)	.0%	.0%	3.2%	3.0%	1.6%
		% of Total	.0%	.0%	.9%	.7%	1.6%
	7	Count	2	3	4	1	10
		% within LA camp	20.0%	30.0%	40.0%	10.0%	100.0%
		% within Age (Binned)	1.4%	2.4%	2.6%	.8%	1.8%
		% of Total	.4%	.5%	.7%	.2%	1.8%
	Total	Count	138	124	154	133	549
		% within LA camp	25.1%	22.6%	28.1%	24.2%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	25.1%	22.6%	28.1%	24.2%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	30.098[a]	18	.037
Likelihood Ratio	34.430	18	.011
Linear-by-Linear Association	16.544	1	.000
N of Valid Cases	549		

a. 8 cells (28.6%) have expected count less than 5. The minimum expected count is 2.03.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.234	.037
	Cramer's V	.135	.037
	N of Valid Cases	549	

Word of mouth * Age (Binned)

Crosstab

			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Word of mouth	1	Count	18	13	19	15	65
		% within Word of mouth	27.7%	20.0%	29.2%	23.1%	100.0%
		% within Age (Binned)	15.9%	11.5%	14.2%	12.0%	13.4%
		% of Total	3.7%	2.7%	3.9%	3.1%	13.4%
	2	Count	23	20	22	12	77
		% within Word of mouth	29.9%	26.0%	28.6%	15.6%	100.0%
		% within Age (Binned)	20.4%	17.7%	16.4%	9.6%	15.9%
		% of Total	4.7%	4.1%	4.5%	2.5%	15.9%
	3	Count	21	15	16	15	67
		% within Word of mouth	31.3%	22.4%	23.9%	22.4%	100.0%
		% within Age (Binned)	18.6%	13.3%	11.9%	12.0%	13.8%
		% of Total	4.3%	3.1%	3.3%	3.1%	13.8%
	4	Count	11	12	14	20	57
		% within Word of mouth	19.3%	21.1%	24.6%	35.1%	100.0%
		% within Age (Binned)	9.7%	10.6%	10.4%	16.0%	11.8%
		% of Total	2.3%	2.5%	2.9%	4.1%	11.8%
	5	Count	12	16	14	20	62
		% within Word of mouth	19.4%	25.8%	22.6%	32.3%	100.0%
		% within Age (Binned)	10.6%	14.2%	10.4%	16.0%	12.8%
		% of Total	2.5%	3.3%	2.9%	4.1%	12.8%

	6	Count	17	33	38	34	122
		% within Word of mouth	13.9%	27.0%	31.1%	27.9%	100.0%
		% within Age (Binned)	15.0%	29.2%	28.4%	27.2%	25.2%
		% of Total	3.5%	6.8%	7.8%	7.0%	25.2%
	7	Count	11	4	11	9	35
		% within Word of mouth	31.4%	11.4%	31.4%	25.7%	100.0%
		% within Age (Binned)	9.7%	3.5%	8.2%	7.2%	7.2%
		% of Total	2.3%	.8%	2.3%	1.9%	7.2%
	Total	Count	113	113	134	125	485
		% within Word of mouth	23.3%	23.3%	27.6%	25.8%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	23.3%	23.3%	27.6%	25.8%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	22.567[a]	18	.208
Likelihood Ratio	23.720	18	.164
Linear-by-Linear Association	5.665	1	.017
N of Valid Cases	485		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 8.15.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.216	.208
	Cramer's V	.125	.208
	N of Valid Cases	485	

Don't mind * Age (Binned)

Crosstab

			Age (Binned)				
			1 over 70	2 between 57-69	3 between 42-56	4 41 or under	Total
Don't mind	1	Count	32	29	25	22	108
		% within Don't mind	29.6%	26.9%	23.1%	20.4%	100.0%
		% within Age (Binned)	31.1%	27.4%	24.3%	19.5%	25.4%
		% of Total	7.5%	6.8%	5.9%	5.2%	25.4%
	2	Count	6	4	5	3	18
		% within Don't mind	33.3%	22.2%	27.8%	16.7%	100.0%
		% within Age (Binned)	5.8%	3.8%	4.9%	2.7%	4.2%
		% of Total	1.4%	.9%	1.2%	.7%	4.2%
	3	Count	4	3	3	1	11
		% within Don't mind	36.4%	27.3%	27.3%	9.1%	100.0%
		% within Age (Binned)	3.9%	2.8%	2.9%	.9%	2.6%
		% of Total	.9%	.7%	.7%	.2%	2.6%
	4	Count	2	2	4	2	10
		% within Don't mind	20.0%	20.0%	40.0%	20.0%	100.0%
		% within Age (Binned)	1.9%	1.9%	3.9%	1.8%	2.4%
		% of Total	.5%	.5%	.9%	.5%	2.4%
	5	Count	8	3	3	6	20
		% within Don't mind	40.0%	15.0%	15.0%	30.0%	100.0%
		% within Age (Binned)	7.8%	2.8%	2.9%	5.3%	4.7%
		% of Total	1.9%	.7%	.7%	1.4%	4.7%
	6	Count	12	13	5	11	41
		% within Don't mind	29.3%	31.7%	12.2%	26.8%	100.0%
		% within Age (Binned)	11.7%	12.3%	4.9%	9.7%	9.6%
		% of Total	2.8%	3.1%	1.2%	2.6%	9.6%
	7	Count	39	52	58	68	217
		% within Don't mind	18.0%	24.0%	26.7%	31.3%	100.0%
		% within Age (Binned)	37.9%	49.1%	56.3%	60.2%	51.1%
		% of Total	9.2%	12.2%	13.6%	16.0%	51.1%
	Total	Count	103	106	103	113	425
		% within Don't mind	24.2%	24.9%	24.2%	26.6%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	24.2%	24.9%	24.2%	26.6%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	21.127[a]	18	.273
Likelihood Ratio	22.013	18	.231
Linear-by-Linear Association	8.657	1	.003
N of Valid Cases	425		
a. 15 cells (53.6%) have expected count less than 5. The minimum expected count is 2.42.			

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.223	.273
	Cramer's V	.129	.273
	N of Valid Cases	425	

Appendix E: Interview Participants' Details and Interview Schedule

Interviewee's No.	LA Area	Participation in a Programme	Gender	Age	Economic Status	Age of Property	Property Type
1	Dacorum	Warm Front	Female	1931-1935	Retired	1930-1949	Detached
2	Watford	Council light bulbs	Female	1976-1980	Looking after family	1991-1995	Semi-detached
3	Watford	LCBP	Male	1961-1965	Employed	1983-1990	Detached
4	Three Rivers	BG insulation	Male	1961-1965	Employed	1930-1949	Detached
5	Three Rivers	Warm Front	Male	1921-1925	Retired	1950-1966	Semi-detached
6	Dacorum	Cocoon	Male	1951-1955	Retired	1976-1982	Terraced
7	Watford	Act on CO_2	Female	1971-1975	Employed	1967-1975	Semi-detached
8	Three Rivers	WHGH	Female	1941-1945	Retired	1976-1982	Detached
9	Dacorum	Council light bulbs	Female	1946-1950	Retired	1967-1975	End of terrace
10	Watford	Energy supplier light bulbs	Female	1965-1970	Employed	1996-2002	End of terrace
11	Watford	Cocoon	Female	1951-1955	Unemployed	1950-1966	Terraced
12	Dacorum	Clear Skies	Male	1951-1955	Employed	1950-1966	Detached
13	Dacorum	Save Today Save Tomorrow	Male	1936-1940	Retired	1967-1975	Detached
14	Watford	BGBS	Female	1976-1980	Employed	Pre 1900	Terraced
15	Watford	Are You Doing Your Bit?	Female	Unknown	Employed	Pre 1900	Detached
16	Dacorum	Energy Savers Report	Male	1976-1980	Employed	1930-1949	Semi-detached
17	Watford	Enquired about flat insulation	Male	1976-1980	Employed	2003-2006	Flat
18	Three Rivers	Enquired about solid wall	Female	1951-1955	Employed	Pre 1900	Detached
19	Dacorum	Enquired about boiler	Male	1951-1955	Employed	1950-1966	End of terrace
20	Three Rivers	Enquired about flat insulation	Male	1941-1945	Employed	2003-2006	Flat
21	Watford	Enquired about loft insulation	Female	1981-1985	Looking after family	1991-1995	End of terrace
22	Dacorum	Enquired about cavity wall	Female	1956-1960	Looking after family	1950-1966	Terraced
23	Dacorum	Enquired about solid wall	Male	1951-1955	Employed	Pre 1900	Terraced
24	Dacorum	Enquired about double glazing	Male	1931-1935	Retired	1967-1975	End of terrace
25	Watford	Enquired about boiler	Male	1971-1975	Employed	2003-2006	Detached
26	Dacorum	Enquired about double glazing	Female	1956-1960	Unemployed	1901-1929	Semi-detached
27	Dacorum	Enquired about RE technology	Male	1961-1965	Employed	1930-1949	Semi detached
28	Dacorum	Enquired about RE technology	Male	1941-1945	Retired	1976-1982	Detached

Interviewee's No.	LA Area	Participation in a Programme	Gender	Age	Economic Status	Age of Property	Property Type
29	Dacorum	Enquired about flat insulation	Female	1941-1945	Retired	Don't know	Flat
30	Dacorum	Enquired about solid wall	Male	1966-1970	Employed	1901-1929	Semi detached
31	Dacorum	Enquired about RE technology	Female	1961-1965	Employed	1950-1966	Detached
32	Three Rivers	Enquired about double glazing	Male	1966-1970	Employed	1950-1966	Semi detached
33	Dacorum	Enquired about RE technology	Male	1961-1965	Employed	1967-1975	Detached
34	Three Rivers	Enquired about double glazing	Male	1931-1935	Retired	1950-1966	Detached
35	Dacorum	Enquired about boiler	Female	1961-1965	Employed	1967-1975	Semi detached
36	Dacorum	Enquired about loft insulation	Male	1971-1975	Employed	1950-1966	Semi detached
37	Watford	Enquired about solid wall	Female	1976-1980	Employed	Pre 1900	Detached
38	Dacorum	Enquired about flat insulation	Male	1946-1950	Employed	1983-1990	Mobile home
39	Dacorum	Enquired about boiler	Female	1956-1960	Employed	1976-1982	Terraced
40	Dacorum	Enquired about solid wall	Male	1936-1940	Retired	1950-1966	Detached
41	Dacorum	Enquired about solid wall	Male	1951-1955	Employed	1901-1929	Detached
42	Dacorum	Enquired about double glazing	Male	1951-1955	Employed	1901-1929	Semi detached
43	Dacorum	Enquired about loft insulation	Female	1941-1945	Retired	1967-1975	Detached
44	Watford	Enquired about audit	Female	1971-1975	Employed	1996-2002	Detached
45	Dacorum	Enquired about double glazing	Male	1936-1940	Retired	1967-1975	Detached
46	Dacorum	Enquired about loft insulation	Male	1951-1955	Employed	2003-2006	Detached
47	Watford	Enquired about solid wall	Female	1966-1970	Employed	1901-1929	Semi detached
48	Dacorum	Enquired about cavity insulation	Female	1971-1975	Looking after family	1976-1982	End of terrace
49	Three Rivers	Enquired about cavity insulation	Male	1946-1950	Employed	1950-1966	Terraced
50	Dacorum	Enquired about RE technology	Female	1951-1955	Employed	1967-1975	Detached

Questions about Existing Programmes for Programmes' Participants and Non-participants:

Q1. How did you end up on the EEAC's database?
Q2. Have you seen any energy saving advertising?
Q3. In your opinion which government intervention campaigns (if any) make you stop and think about your actions?
Q4. What measure did you enquire about?
Q5. Were your expectations met?
Q6. What about the advice and education programmes? Any issues there?
Q7. How did you intent to pay for the programme?
Q8. When considering participating in a programme with a grant, in your opinion, was the level of the grant adequate?
Q9. Were there any other issues you did not like about the funding?
Q10. Did the programme you were interested in have any qualifying eligibility criteria?
Q11. If the programme had eligibility requirements, how did they affect you?
Q12. How were you expected to apply for the programme?
Q13. How did you find the application requirements?
Q14. Were you expected to carry out any preparation work before any measure could have been installed/work carried out?
Q15. Thinking about the issues that we have discussed, what had the greatest impact on your decision?

Questions About Existing for Programmes' Participants Only:

Q16. What was your experience with the works that you have had done/measures that you have received?
Q17. After all was done, did you receive any form of follow up queries?

Questions about Future Programmes for Programmes' Participants and Non-participants:

Q1. How would you improve current awareness raising of programmes?
Q2. How would you improve the measures that programmes offer?
Q3. How would you improve/change the funding of programmes?
Q4. How would you improve/change the eligibility criteria of programmes?
Q5. How would you improve/change the application methods of programmes?
Q6. How would you improve/change the preparation work of programmes?
Q7. How would you improve the work of programmes?
Q8. How would you improve/change the aftercare of programmes?

Appendix F: Transcripts of Study Participants' Interviews

Experiences with Existing Programmes			
Energy Programmes' Feature	**Question**	**Interviewee's Response**	**Interviewee's ID**
Awareness Raising Avenues	Q1. How did you end up on the EEAC's database?	I have received a letter from the council about Warm Front, so I phoned them.	1, 5, 6, 21, 24, 26, 29, 43, 45, 48
		I have walked past a stand where the council or someone was given away light bulbs and filling in those home energy checks.	2, 7, 9, 10, 11, 13, 15, 16, 23, 27, 28, 31, 32, 35, 36, 38, 39, 41, 44
		It is such a long time ago I can't even remember.	17, 19, 22, 25, 34, 40
		After reading an advert in a journal.	3, 12, 30, 42
		I have received a leaflet with all the other junk mail. But because I wanted to do something to save some money on my ever-increasing fuel bill I have phoned them.	8, 14, 18, 20, 47, 49
		I wanted to do something so I called EEAC without prompt.	4, 33, 37, 46, 50
	Q2. Have you seen any energy saving advertising?	No	1, 2, 3, 8, 9, 10, 12, 13, 14, 15, 16, 18, 19, 20, 21, 23, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 38, 40, 41, 42, 43, 45, 46, 47, 50
		Yes	4, 7, 11, 17, 22, 25, 37, 39, 48
	Q3. In your opinion which government intervention campaigns (if any) make you stop and think about your actions?	Drink and drive.	1, 2, 4, 6, 10, 16, 19, 21, 24, 26, 28, 30, 33, 37, 41, 43, 47, 48
		Stop Smoking	7, 13, 21, 25, 27, 34, 40, 50
		Health campaigns with fear factor – aids or cancer	3, 4, 8, 11, 12, 14, 15, 18, 20, 21, 22, 24, 29, 31, 32, 35, 36, 38, 39, 44, 45
Measures	Q4. What measure did you enquire about?	Loft insulation	1, 5, 11, 21, 36, 43, 46
		Cavity insulation	1, 4, 5, 6, 8, 48, 49
		Boiler	14, 19, 25, 35, 39
		Double glazing	24, 26, 32, 42, 45

Experiences with Existing Programmes			
Energy Programmes' Feature	**Question**	**Interviewee's Response**	**Interviewee's ID**
		Renewable energy technology	3, 12, 27, 28, 31, 33, 50
		Solid wall	18, 23, 30, 37, 41, 47
		Insulation for block of flats	17, 20, 29, 38
		CFL from council	2, 9
		Received CFL from energy provider, but did not ask for them	10
		Education/information	7, 13, 15
		Energy audit needed for the sale of my property	16, 44
		Don't know/can't remember	22, 34, 40
	Q5. Were your expectations met?	Yes	1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16
		No – no programme existed to help me	17, 18, 19, 20, 23, 24, 25, 26, 29, 30, 32, 35, 37, 38, 39, 41, 42, 45, 47
		No - I did not want any more light bulbs and how many of the same type of light bulbs can one person have anyway?	10
		No – it was too expensive even after the grant	21, 22, 27, 28, 31, 33, 34, 36, 43, 44, 46, 48, 49, 50
	Q6. What about the advice and education programmes? Any issues there?	I can hardly see the point.	1, 2, 3, 4, 5, 6, 8, 9, 12, 14, 15, 16, 19, 20, 22, 23, 24, 25, 26, 30, 31, 32, 33, 34, 35, 38, 39, 40, 41, 42, 44, 45, 46, 48,49, 50
		I would only do it if selling my house.	4, 5, 6, 8, 11, 16, 24, 25, 29, 42, 44, 50
		The details on the labels are too complicated.	2,3, 6, 8, 9, 10, 14, 15, 21, 22 26, 27, 30, 33, 34, 45, 47, 49
Funding	Q7. How did you intent to pay for the programme?	It was free	1, 2, 5, 7, 9, 10, 13, 15
		It offered a grant	3, 4, 6, 8, 11, 12, 14, 27, 28, 33, 36, 46, 49, 50
		I would had to pay the full price	16, 18, 20, 23, 24, 26, 29, 30, 31, 32, 35, 37, 38, 39, 41, 42, 44, 45, 47

Experiences with Existing Programmes			
Energy Programmes' Feature	**Question**	**Interviewee's Response**	**Interviewee's ID**
		I thought I would get it free	21, 43, 48
	Q8. When considering participating in a programme with a grant, in your opinion, was the level of the grant adequate?	Yes	3, 4, 6, 8, 11, 12, 14
		Yes – but I did not trust the source of the grant. Why would energy companies invest in energy saving, it does not fit.	36, 46, 49
		No	28, 27, 33, 50
	Q9. Were there any other issues you did not like about the funding?	I did not like where the money was coming from. Why would utility want us to save energy?	4, 6, 21, 36, 43, 46, 48, 49
		Almost everything can be paid for in instalments or credits, why not energy efficiency? Who has that kind of money up-front?	3, 8, 11, 12, 14, 27, 30, 31, 32, 33, 50
		The grant was so small but they have expected you to do so much work for it. It just was not worth it.	3, 12, 27, 28, 33, 50
		None	1, 2, 5, 7, 9, 10, 13, 15, 16
Eligibility Criteria	Q10. Did the programme you were interested in have any qualifying eligibility criteria?	Yes – benefits	1, 5, 21, 43, 48
		Yes – bringing my property to a higher energy efficiency standard	27, 28, 31, 50
		Yes – finding an installer/technology	3, 12, 14, 27, 28, 31, 33, 50
		No	2, 4, 6, 7, 8, 9, 10, 11, 13, 15, 16, 36, 44, 46, 49
	Q11. If the programme had eligibility requirements, how did they affect you?	I was not eligible because my income/pension was too high.	21, 48
		I was put off by the complexity of the task – having to find an installer and the technology.	27, 28, 31, 33, 50
		I couldn't believe the amount of paperwork, for such a small gain.	3, 12, 27, 28, 33, 50
		I was expected to pay for the boiler and then claim retrospectively, it presented too much hassle.	14
		None	1, 5, 43
Application Methods	Q12. How were you expected to apply for the programme?	I would have to fill in an application form online.	4, 13, 27, 28, 33, 50
		I had to telephone the EEAC line and someone came out to assess my house.	6, 8, 11, 31, 36, 43, 46, 48, 49
		I had to telephone the installer/programme provider line and someone came out to assess my house.	1, 5, 16, 44
		I could have fill in a form and post it.	3, 12, 14
		There was no application method.	2, 7, 9, 10, 15
	Q13. How did you find the application	It was very easy and straightforward.	1, 3, 4, 8, 16, 31

Experiences with Existing Programmes			
Energy Programmes' Feature	**Question**	**Interviewee's Response**	**Interviewee's ID**
	requirements?	The application was long winded and complicated.	13, 14, 27, 28, 50
		The time that lapsed between application and a response from the programme was too long.	3, 5, 12, 21, 33, 36, 43, 48
		The times that appointments were cancelled were one too many.	11, 21, 36, 43, 49
		I did not appreciate the way I was spoken to.	6, 43, 44, 46
Preparation Work	Q14. Were you expected to carry out any preparation work before any measure could have been installed/work carried out?	Yes – I would have had to clear the loft	1, 5, 11, 21, 36, 43, 46
		Yes – I would have had to improve the energy efficiency of my house	27, 28, 31, 50
		Yes – I would have had to find an approved installer/technology	3, 12, 14, 27, 28, 31, 33, 50
		No	2, 4, 6, 7, 8, 9, 10, 13, 15, 16, 44, 48, 49
	Q15. Thinking about the issues that we have discussed, what had the greatest impact on your decision?	AR avenues: positively	-
		Negatively	-
		Measures: positively	3, 6, 8, 12
		Negatively	17, 18, 19, 20, 22, 23, 24, 25, 26, 29, 30, 34, 35, 37, 38, 39, 40, 41, 42, 45, 46, 47
		Funding: positively	1, 2, 4, 5, 6, 8, 9, 11, 12, 14
		Negatively	16, 21, 27, 28, 33, 36, 43, 46, 48, 49, 50
		Eligibility criteria: positively	-
		Negatively	21, 33, 48
		Application methods: positively	-
		Negatively	-
		Preparation work: positively	-
		Negatively	14, 21, 27, 28, 36, 50
Works	Q16. What was your experience with the works that you have had done/measures that you have received?	The workmen were efficient, worked fast and cleaned up after themselves.	1, 5, 7, 14
		The workmen were late, massy and somewhat rude.	4, 6, 11
		I have received yet another lot of type of light bulbs.	10
		I have signed up to educational campaign and received some confusing reports that did not motivate me to do anything about it.	7, 13, 15, 16
		The workmen explained clearly how the technology works.	3, 12

Experiences with Existing Programmes			
Energy Programmes' Feature	**Question**	**Interviewee's Response**	**Interviewee's ID**
		I don't really know what I have gained from participating in this programme.	7, 15
Aftercare	Q17. After all was done, did you receive any form of follow up queries?	Someone phoned me to ask if I was happy with the works/workmen.	1, 5, 6, 8, 11
		No	2, 3, 4, 7, 9, 10, 12, 13, 14, 15, 16

Design of Future Home Energy Efficiency Programmes			
Energy Programmes' Feature	**Question**	**Interviewee's Response**	**Interviewee's ID**
Awareness Raising Avenues	Q1. How would you improve current awareness raising of programmes?	I presume there are problems elsewhere, but I can only relate to here. So, images from somewhere far away won't do any good.	2, 3, 4, 6, 13, 15, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 34, 35, 36, 38, 39, 41, 43, 44, 46, 50
		Include energy conservation in programmes such as Eastenders.	2, 3, 5, 7, 10, 12, 13, 16, 21, 22, 25, 26, 28, 32, 33, 34, 38, 43, 47
		Show in campaigns the link between money saving and energy conservation.	1, 3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 16, 18, 21, 24, 25, 26, 27, 28, 29, 30, 32, 33, 35, 36, 37, 39, 40, 45, 46, 48, 50
		Involve manufacturers and make them design products that are better, more efficient and more convenient to turn off completely.	2, 7, 10, 11, 13, 16, 18, 20, 26, 29, 32, 35, 38, 49
		Use champion someone like Jamie Oliver is championing food, but make energy somehow more exciting/appealing.	1, 4, 6, 7, 8, 9, 13, 16, 18, 20, 22, 25, 27, 29, 31, 32, 33, 35, 36, 38, 40, 41, 47, 49
		Create local show homes, maybe one in each town.	3, 4, 6, 7, 8, 9, 10, 13, 14, 16, 19, 20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 33, 35, 37, 38, 43, 45, 46

Design of Future Home Energy Efficiency Programmes			
Energy Programmes' Feature	**Question**	**Interviewee's Response**	**Interviewee's ID**
		Encourage programmes to be adopted by the whole street/community.	4, 5, 7, 8, 9, 10, 11, 12, 13, 15, 16, 19, 20, 21, 22, 23, 24, 27, 28, 29, 31, 32, 33, 35, 37, 39, 42, 48
		When you take part in one programme, provide information about other things you can do. Close the loop.	1, 3, 4, 7, 9, 10, 11, 12, 14, 15, 17, 19, 20, 22, 23, 26, 27, 28, 29, 31, 34, 37, 38, 41, 42, 44
		Energy conservation should be encouraged at work.	1, 4, 5, 8, 9, 10, 11, 13, 15, 16, 17, 19, 21, 24, 25, 26, 28, 34, 37, 38, 49, 50
		Link technology with education, as information and education programmes achieve very little, I think.	1, 3, 5, 7, 8, 9, 10, 11, 12, 15, 18, 19, 20, 23, 24, 25, 26, 27, 29, 30, 33, 36, 38, 39, 43, 45, 47
		Train the staff of EEACs better – ensure they really provide impartial advice and conduct their businesses in a polite way.	3, 7, 9, 10, 11, 12, 13, 15, 16, 23, 31
		There are too many programmes and too many telephone numbers, streamline the programmes through councils and let them provide the correct information.	2, 3, 5, 6, 7, 8, 10, 11, 12, 14, 15, 17, 18, 19, 20, 22, 23, 25, 26, 27, 29, 30, 33, 34, 35, 38, 42, 44, 47, 48, 50
Measures	Q2. How would you improve the measures that programmes offer?	Offer something that goes beyond the obvious – special technology, very old properties, listed properties etc.	2, 4, 6, 10, 12, 14, 21, 24, 27, 28, 29, 31, 33, 34, 35, 39, 41, 42, 43, 46, 47, 50
		Increase the variety of things on offer.	2, 3, 5, 6, 7, 9, 10, 11, 13, 17, 19, 20, 21, 22, 23, 24, 26, 28, 29, 33, 34, 35, 37, 39, 40, 41, 43, 45, 46, 49

Design of Future Home Energy Efficiency Programmes			
Energy Programmes' Feature	**Question**	**Interviewee's Response**	**Interviewee's ID**
		Provide better information on how to use the newly installed technology to maximum potential in a better, more user friendly way.	8, 10, 11, 12, 13, 16, 18, 20, 24, 26, 27, 28, 30, 31, 35, 36, 37, 43, 44, 45
		Provide a tailor-made LA energy assessment and suggest how and what needs to be done with cost and levels of subsequent energy savings.	2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 19, 20, 22, 23, 24, 25, 31, 32, 35, 36, 37, 38, 39, 40, 42, 43, 44, 49, 50
Funding	Q3. How would you improve/change the funding of programmes?	Increase grants levels.	2, 3, 4, 6, 7, 9, 11, 13, 14, 15, 17, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 30, 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 49, 50
		Allow payments from savings.	8, 12, 16, 21, 25, 34, 43, 48
		Create better green loans and allow payment by instalments.	8, 12, 16, 21, 25, 43, 48
		Remove hidden costs.	4, 6, 11, 22, 36, 43, 49
Eligibility Criteria	Q4. How would you improve/change the eligibility criteria of programmes?	Broaden eligibility criteria.	21, 43, 46, 48
		Make them less complicated and complex.	3, 14, 22, 27, 28, 31, 33, 34, 48, 50
Application Methods	Q5. How would you improve/change the application methods of programmes?	Remove some of the unnecessary things – there is already too many hoops to jump through.	1, 3, 4, 11, 14, 22, 26, 27, 28, 31, 33, 34, 48, 49, 50
		Enable application through more means – e.g. websites	3, 6, 8, 11, 12, 14, 31, 36, 43, 46, 48, 49
		Speed up the response times – it takes too long to find out whether your application is successful.	1, 5, 16, 44
		Ensure that the homeowners are informed about the progress of their application.	2, 3, 4, 7, 9, 11, 13, 14, 15, 17, 22, 28, 31, 32, 33, 35, 36, 37, 39, 40, 41, 45, 46, 49, 50
		Remove small print.	1, 4, 6, 11, 22, 28, 36, 43, 46, 49

Design of Future Home Energy Efficiency Programmes			
Energy Programmes' Feature	**Question**	**Interviewee's Response**	**Interviewee's ID**
Preparation Work	Q6. How would you improve/change the preparation work of programmes?	Work with local councils to offer the clearing up of lofts for those who need help.	1, 8, 11, 21, 43
		Assign a dedicated person who will help navigate through the amount of research and paperwork filling.	3, 27, 35, 44, 50
Works	Q7. How would you improve the work of programmes?	Make sure that they tidy up after themselves and take care of our possessions.	1, 4, 5, 6, 8, 14
		Inform homeowners in timely fashion when/if the works are being postponed/cancelled.	3, 5, 6, 8, 14
Aftercare	Q8. How would you improve/change the aftercare of programmes?	Instead of just asking about the workmanship ask whether the homeowner understands/knows how to use it.	4, 6, 8, 14
		Provide information on what else I could do/how else I could save energy.	2, 3, 4, 5, 6, 8, 15